

Grades
2-5

A bicycle is about
meters long?



$00:8$
 $V=H$
 $W \times H$

Sierra'sTM
School House

MATH ENGLISH SCIENCE

KIDS TO ADULTS



AGES 6+



S I E R R A[®]

S I E R R A ' S S C H O O L H O U S E

THE COMPLETE SIERRA'S SCHOOL HOUSE

h a n d b o o k

*English, Mathematics, and Science
for the 2nd-5th grades*



S I E R R A ®

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Dear Parent,

I am pleased to introduce **Sierra's School House**, an innovative new approach to educational software. This exciting product is unlike any currently on the market and is sure to be a valuable addition to your software library.

Sierra's School House is designed to provide a complete learning experience incorporating education, exploration, and recreation. This is achieved by providing a comfortable environment in which children can challenge their basic skills in Mathematics, English, or Science, apply their creativity through paint, animation, and multimedia tools, and stimulate their minds through intellectual and entertaining games, animations, and video clips.

Our top-notch curriculum development team spent thousands of hours researching and writing the massive quantities of material found in **Sierra's School House**. Our greatest challenge was to design a comprehensive course of study paralleling curriculum currently taught in elementary schools throughout America. For this task we relied on years of cumulative teaching expertise as well as national standards documents such as the National Council of Teachers of Mathematics (NCTM) Curriculum and Evaluation Standards, and the Benchmarks for Science Literacy released by the American Association for the Advancement of Science (AAAS). The result is a powerful comprehensive learning tool that is sure to advance your child's proficiency in Mathematics, English, and Science.

Every activity a child participates in is a learning experience. Finger painting, field trips, and kickball are integral parts of your child's whole learning experience at school. The activities that supplement our curriculum are part of what make **Sierra's School House** a whole learning environment for the home. The Games Gallery, Theater Lab, and Creative Tools provide an opportunity for children to interact, explore, and create at their own pace and comfort level.

Sierra's School House is sure to provide your child with many hours of fun and challenging learning activities. I sincerely believe regular use of this program will greatly contribute to your child's level of success in school, and in higher self-confidence for him or her. Perhaps **Sierra's School House** can even serve as a refresher course for us parents! All of us at Sierra look forward to hearing about your child's experience.

Russ Killingsworth

Curriculum Producer

Introduction

Overview of Sierra's School House

Sierra's School House currently includes:

Math (grades 2-5), **English** (grades 2-5), **Science** (grades 2-5)

Sierra's School House provides a learning environment like no other. It offers:

- A learning Activities section that covers four years worth of curriculum in each software package
- Research tools that help your child understand the concepts being practiced
- Edumations (animated educational movies)
- Animated explanations of several basic concepts (water cycle, space, astronomy, atlas, endangered animals)
- Learning tools such as a calculator, diary, and notebook
- Multimedia programs (a drawing program, an animation program, and a multimedia program)
- The ability to create your own Edumations, or other animated cartoons
- A scoring feature that keeps track of lessons attempted, lessons completed, along with how well those lessons were completed
- A game area packed with hot software games
- A "face-maker" that allows your child to create a personalized character

Sierra's School House is designed to provide a comprehensive curriculum for your child. The knowledge and content of the lessons, games, and activities in the various **Sierra's School House** products correlate with each other, building on previous knowledge, to provide a holistic, well-rounded view of curriculum for your child. We encourage you to experience them all!

Why We Created Sierra's School House

We asked parents and educators what software they wanted most for their children. The answer: an educational supplement that will keep a child's mind active by reviewing core curriculum over the long and often wasted summer months. In response, we developed **Sierra's School House**, a powerful educational tool that's loaded with interactive lessons and meaningful learning activities.

Parents and educators alike want software that is entertaining, visually pleasing, and so engaging that it captivates a child's often short attention span. But, they want more than just a "fun game"; they want a product with an unmistakably solid educational base.



A Supplemental Learning Tool

When your child isn't learning well in school, what do you do? Ask the teacher for advice? Sign up for an expensive tutoring service? Look for a software product that will fill your child's educational needs? **Sierra's School House** is designed to provide curriculum content similar to that taught in the schools, paralleling what your child is learning and reviewing important concepts.

You can choose the specific subject to suit your child's needs by purchasing the appropriate package (**Sierra's School House Math, English, or Science**). You can also choose the level of difficulty by selecting from grades 2 and 3 (packaged together for a double value) or grades 4 and 5 (also packaged together).

Once you've selected the subject and grade level, you'll find that it's easy to locate the exact concept your child needs to review. For example, if your child needs to review prefixes and suffixes, look in the Curriculum section of this Handbook and you'll find a review of both prefixes and suffixes in English 4, Chapter 2. With **Sierra's School House** it's easy to locate specific topics that fill your child's educational needs.

Current Trends in Education

In creating **Sierra's School House**, we did our homework. We found that Dr. Howard Gardner, a leading researcher in education, developed the theory of multiple intelligences. His research reveals that each of us learn through different approaches. Some of us learn better by reading, some by touching and experimenting, some by hearing. For example, a child who is hyperactive will probably not learn math facts by writing them on a piece of paper. Rather, a hyperactive child can enjoy learning math facts by reciting them while bouncing on a trampoline or playing a fast-paced computer game (both kinesthetic / bodily activities).

Here is an outline of the eight intelligences and a brief description of each:

Intelligence	Examples	How <i>Sierra's School House</i> Appeals to Each Intelligence
Verbal / Linguistic	Playing with words, reading for information, writing, thinking out loud, and discussing.	The on-line tutor, Adi, provides constant verbal feedback, offering helpful suggestions and engaging in friendly conversation. Children are involved in plenty of interesting reading, especially in upper grades. They will often need to read a short text to answer a question correctly. There are hundreds of help screens with playful stories to illustrate concepts. Children can also write in a personal diary or notebook about what they have learned.
Logical / Mathematical	Working with factual information, looking for patterns and relationships, forming concepts, and working in an orderly, sequential way.	The curriculum is arranged in a linear, orderly way (see the Curriculum section of this Handbook). A progress chart, in the form of a graph, is automatically shown at the end of each learning session. Concepts are arranged in a logical sequence. Children are involved in comparing, contrasting, and making analogies no matter what the subject.



Visual / Spatial	Creating illustrations, charts, diagrams, and mental images, constructing 3-dimensional objects, and using multimedia technology.	<p>The main screen is packed with bright colors, hot spots, and other visual attractors.</p> <p>Edumations show concepts through text and graphics, making the concepts come to life.</p> <p>Each question often has a graphic attached to it that helps the child visualize what is being asked.</p> <p>With each correct answer, a child gets a short visual reward (a short graphic display).</p> <p>There are three powerful visual tools: Paintbox, Animation, and Multimedia each of which satisfies the Visual / Spatial intelligence.</p>
Bodily / Kinesthetic	Physical involvement and coordination, manipulatives, model-building, working with computers, arts and crafts, sports and active games.	<p>A high level of interaction is needed to complete the lessons and play the games.</p> <p>Children who have a strong kinesthetic intelligence often need high-power activity that will "grab" their attention. Sierra's School House does this by making sure that the child is interacting (clicking or moving around in the program) at least every minute or so. There is no dead time.</p>
Musical	Listening to music, singing or playing instruments, dancing and musical activities, performing and / or composing.	<p>The personal tutor, Adi, provides a musical animation every time a child answers correctly.</p> <p>There are several hot spots in the main room screen that lead to musically pleasing areas. Click on the guitar and you will go to a music room with many interesting rhythms. Click on the window to go a room that allows you to choose the background sounds. See Chapter 2 in this Handbook for more explanation.</p>
Interpersonal	Communicating and interacting with others, group projects, and cooperative efforts, and on-line communications.	<p>Adi, a lovable onscreen tutor, will interact as a friend and as a tutor asking questions such as, "Are you ready for another question?"</p> <p>Children can make incredible creations in the Paintbox, Animation and Multimedia tools to share with friends. For more information on how to do this, see Chapter 5 in this Handbook.</p>
Intrapersonal	Goal-setting and self-directed activities, getting in touch with thoughts and feelings, quiet and privacy, time for reflection.	<p>Children advance at their own personal pace.</p> <p>Children see only their own progress (not compared to others) in the progress chart displayed at the end of each learning session.</p> <p>Children direct their own learning by choosing which specific topic to study.</p> <p>Children can record personal thoughts and feelings in the diary and lock it with a password.</p> <p>Children can also use the notebook to record quick observations or work out a problem independently.</p>
Naturalist	The ability to recognize fine patterns and distinctions in the world.	Children need to identify subtle differences in the answers provided in the exercises.



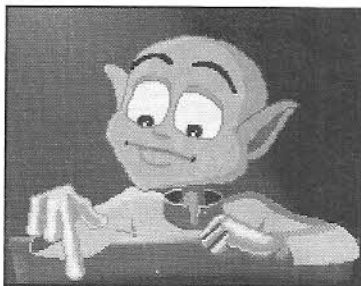
These are only a few examples of the many ways *Sierra's School House* appeals to all eight intelligences as defined by Dr. Howard Gardner.

Identifying the Best Learning Methods

Instead of sitting down to a piece of paper and pencil to study, your child can turn on a bright, attractive learning environment that can:

- Effortlessly keep track of progress.
- Adjust the lessons to fit specific educational needs.
- Teach or review important concepts without teacher or parent preparation.
- Provide an on-screen animated personal tutor with state of the art lip sync.
- Allow for an enormous amount of educational content.
- Have a library of help screens specific to each topic which can be accessed instantly.
- Provide needed tools (notepad, calculator, diary, etc.) all in one handy location.

These are only a few of the educational features in *Sierra's School House*. A complete list of all its amazing features would fill this entire Handbook!



User Guide

Chapter 1 – Quick Start

How to Install, Start, or Quit the Program

Installing *Sierra's School House*

- Start Microsoft Windows and insert the ***Sierra's School House*** compact disc (Disc 1) into the CD-ROM drive.
- Select **Run** from the File menu of the Windows Program Manager. Type D:\SETUP (substituting the letter of your CD-ROM drive for 'D'). Click the Install button and follow the prompts on the screen. After the setup is completed, ***Sierra's School House*** will appear with its own icon in the 'Sierra' program group.

Starting and Exiting *Sierra's School House*

- To start the program, start Microsoft Windows and insert the ***Sierra's School House*** compact disc (Disc 1) into the CD-ROM drive. Open the 'Sierra' program group within the Windows Program Manager. Then, double-click on the Adi icon inside it.
- To exit the program from anywhere within it, click on the Door button at the far right side of the button bar displayed on the bottom. This may take you to the main screen first. From here, click again on the Door button to exit the program. You can also press the Esc key to exit from whatever activity you're currently working in.

Minimum System Requirements

In order to run ***Sierra's School House*** effectively, you should have the following hardware and software:

- 486/33 Mhz personal computer or faster
- 8 MB of RAM system memory
- 2 MB available space on your hard disk
- Double-speed, CD-ROM drive (MPC2-compatible)
- VGA display and video board, capable of displaying 256 colors at 640 x 480 resolution
- Microsoft® mouse or compatible
- System software: MS-DOS version 5.0 and Microsoft Windows® 3.1
- Microsoft Windows 3.1 compatible sound board with DAC and audio speakers or headphones
- For printing, one of the following printers: IBM dot-matrix or compatible, HP DeskJet or compatible, or an HP laser printer or compatible



Chapter 2 – Overview

The Wonders of Sierra's School House!

Much thought, planning, and research have gone into the creation of **Sierra's School House**. The end result is a powerful program with the following key features:

- **Adi's Place - A lively 'desktop'.** **Sierra's School House** is vibrantly alive with animations, color, and sound. Adi's Place is at the heart of this program.

Your child will meet Adi, a friendly alien who uses Sierra On-Line's patented lip-sync technology to speak to your child, coaching him through the program's various learning sessions and activities.

- **A fun-filled 'Learning Lab'.** The Learning Lab includes several hundred exercises, in subjects such as Math, English, or Science. (The subjects available in the Learning Lab depend on the specific **Sierra's School House** package you've purchased.)

Exercises for each subject are designed to take the "work" out of homework, allowing your child to develop and strengthen skills appropriate to his level and age group. Each correct/incorrect response to exercises provides your child with instant feedback.

- **An Interactive Games Gallery.** **Sierra's School House** also comes with a gallery of games that your child can use as either a break from the Learning Lab, or as a reward when he earns a certain number of points in the Learning Lab.

*A new set of games (most often, two games) will be displayed in the Games Gallery the first time your child opens any curriculum application (such as **Sierra's School House Math** or **English**). Then, for every 900 points your child earns in the Learning Lab, each new game displayed will become 'active' for your child to play with and enjoy.*

- **A 'Theater Lab' of Multimedia Explorations and Edumations.** These multimedia segments cover subjects with fantastic, sound-filled animations, video, and photos.
- **A 'Creativity Toolbox'.** The set of tools in Adi's Creativity Toolbox also offer a fun afternoon's diversion on their own.

What You'll See As a New User

As soon as you start the program, the Sierra screen will appear with music, followed by Adi himself and the **Sierra's School House** title screen. You'll then arrive at the first colorful screen showing a character with the word, **New**, underneath it.



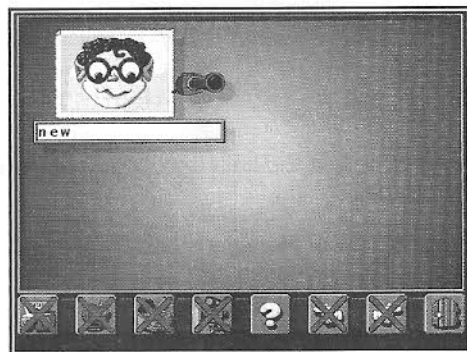


Figure 1. Opening Screen with 'New' Face Icon.

(If other people are also using *Sierra's School House* from your computer, you may see other faces with their names underneath them.)

Creating a New Face and Entering *Sierra's School House*

1. Click on the character above the "New" text box with the left button on your mouse. This takes you to a wonderful screen where you can create your own character!

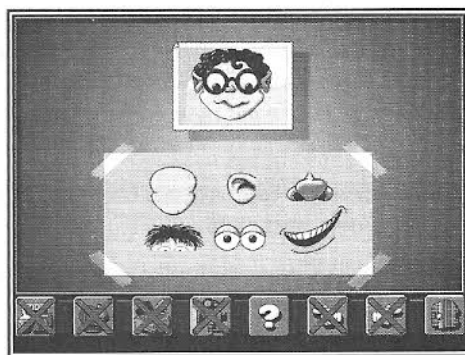


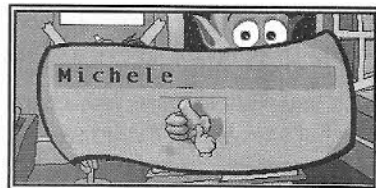
Figure 2. The Character Changer Screen.

2. See the sheet that's "taped" to the screen? You can put any type of eyes, ears, nose, mouth, or hairstyle on your character. Just click on any facial feature. Click several times on the same feature (like the eyes) to see all your choices.
3. When you're done creating your face, click on the Door button at the bottom right. This takes you to Adi's Place. Here, Adi will introduce himself and tell you a little about his world.



4. Adi will ask you to type your name in the information box, as shown.

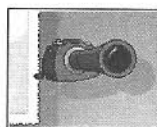
Once you've typed your name, click on the Thumbs Up (OK) button to let Adi know that you're done.



5. Later, he'll ask you to tell him your birthday. A new information box will appear with separate text boxes for the month, day, and year. Use the mouse to click several times within each text box. Each time you click, the date changes in the text box. Click on the Thumbs Up (OK) button again when you're done.
6. Adi will then explain the icons at the bottom of the screen.
7. Adi then asks you to poke around in his room and he will tell you what everything is.
8. Once you've explored Adi's Place, click on the Door button to move on.
9. When you're ready to leave **Sierra's School House**, be sure to click on the Door button (Quit) at the bottom right of the screen. This way, the funny face you created will be saved for the next time you use **Sierra's School House**. The next time you start **Sierra's School House**, your own funny face will appear with your name underneath it. Click on your face and it will take you right to Adi's Place.

Changing or Erasing a Character

Once you've created your own character, you may want to change the way he looks from time to time or erase a character you aren't using anymore.



Click on the camera to change or delete an existing character.

Figure 3. Opening Screen with Existing Character.

This takes you to the Character Changer Screen shown in Figure 2.

Click on the 'X' to delete the character.

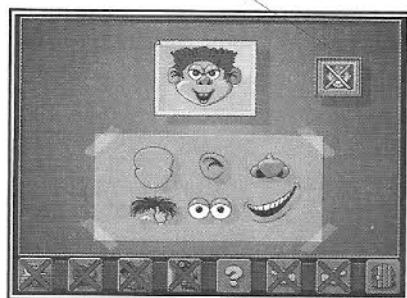


Figure 4. Character Changer Screen with Delete Option.



- If you just want to change your character, you can now click on different facial features, then click on the Door button to exit and save your changes.
- If you want to erase your character, click on the small box with the 'X' on it, shown to the right of your character. When the prompt appears, click on Yes.

Exploring Sierra's School House

Adi's Place is the main screen you see when you use *Sierra's School House*.

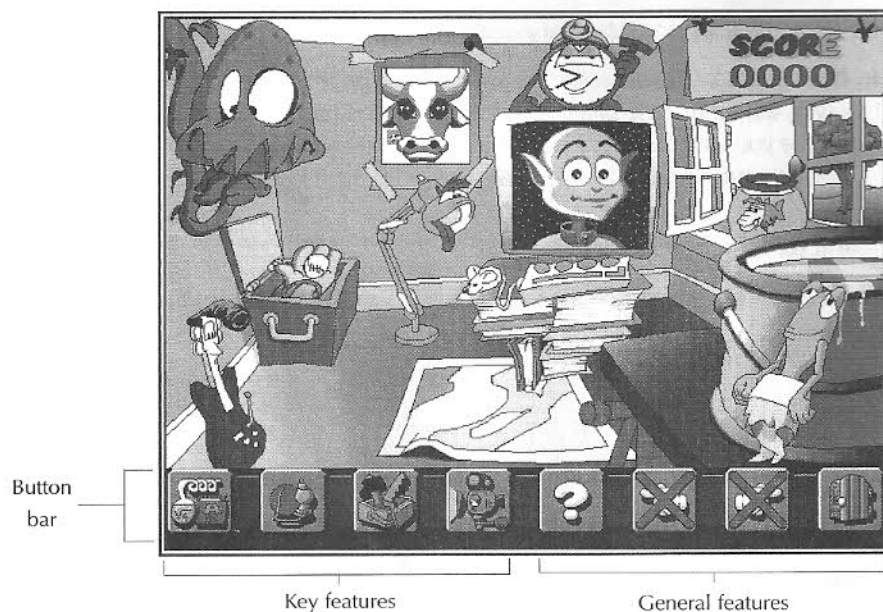


Figure 5. Adi's Place.

Many of the objects in Adi's Place change or become animated when you click on them. These are "active zones." You can easily find an active zone when your mouse pointer turns into "a pointing finger" on the screen.

Clicking on the Guitar, Poster or Window

When you click on the guitar, poster, or window in Adi's Place, you will go to another screen with more options.

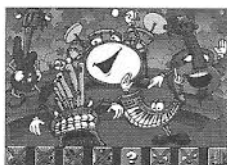
When you
click on this Item
in Adi's Place:

You go to:

From here, you can:



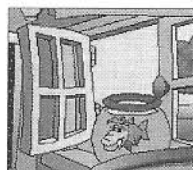
The guitar



The Music Screen

Play different tunes! Just click on the different instruments in the band.

When you're through, just click on the Door button to return to Adi's Place.



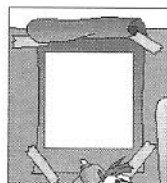
The window



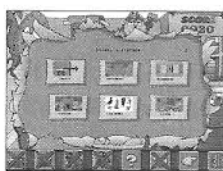
The Background
Sounds Screen

Select different background sounds to hear when you are working in activities. Just click on any of the characters to hear how they sound.

When you're through, just click on the Door button to return to Adi's Place.



The poster



The Picture's
Main Screen

Display part of any picture available in *Sierra's School House* in the poster in Adi's Place.

Once the picture appears, you can click on any area on the picture that fits within the box shape of your cursor. As soon as you click, you will return to Adi's Place.



Using the Button Bar

Along the bottom of Adi's Place, there is a button bar with eight buttons across it.

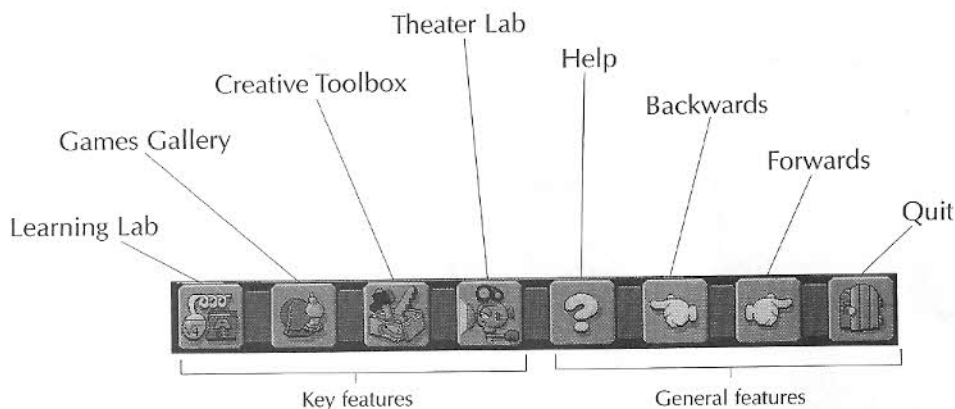


Figure 6. The Button Bar.

Using the Help and Quit Buttons



If you are unsure of what something is or what it does, click on the Help button (the question mark). Adi will then answer your questions.



If you want to stop what you are doing and return to Adi's Place, click on the Quit button (the door). You must also click on the Quit button to exit *Sierra's School House*. Pressing the **Esc** key on your keyboard also lets you quit any activity.

Using the Backwards and Forwards Buttons







If you have more items than there is room to show on the menu screen, you can click on the Forwards (right-pointing finger) button to see the next screen of the menu. Click on the Backwards (left-pointing finger) button to go back.



Using the Mouse in *Sierra's School House*

Sometimes the cursor changes shape as you move the mouse. Each time it changes shape, it's telling you what you can do at that point on the screen.

If the cursor looks like:	Then:
	You'll get no response if you click on that area.
	You can click on the area and <i>Sierra's School House</i> will perform an action.
	You can click on an area and get "Help" or information about it. Click on the Help button to turn the Help cursor on and off.
	You can type words from the keyboard.



Chapter 3 – Key Features

As mentioned previously the first four buttons on the button bar give you access to key features in *Sierra's School House*. The button bar runs along the bottom of Adi's Place and most other screens in *Sierra's School House*.

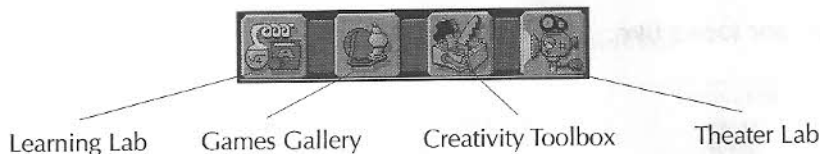


Figure 7. Key Features on the Button Bar.

Clicking on any of these four buttons will take you to a separate menu screen. From there, you can click on any item and go to the specific subject, game, or activity.

About the Learning Lab Button



Once you click on the Learning Lab button, the icons you see in the menu screen will depend on the specific curriculum subjects you've purchased and have already accessed for the first time.

About the Games Gallery Button



There are many different games available. Each time your child earns 900 points in the Learning Lab, he or she will find more games available.

NOTE: When you see the Games menu screen, remember to click on the Forwards button (the right-pointing finger) to view all games available. Also, look in the Game Guides section following this User Guide for tips and specific instructions on playing each game.



About the Creativity Toolbox Button



Among the tools available when you click on the Creativity Toolbox button are some that let your child practice his writing and computer skills by keeping a diary using a calculator, or writing out stories and ideas. Other, more powerful activities let your child create his own pictures, and animations and multimedia stories. Just click on the Creativity Toolbox button to reach the Creativity Toolbox menu screen, as shown.

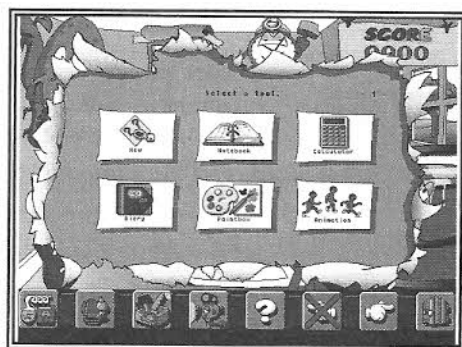






Figure 8. The Creativity Toolbox Menu Screen.

NOTE: This menu screen shown does not display all activities available. Click on the Forwards button (the right-pointing finger) to see the rest of the tools/activities available.

The six tools available from within the Creativity Toolbox menu screen are:

	The Notebook lets you write short notes to yourself. You have a total of five pages to write on. You cannot save the notes you write. The Notebook will be blank each time you start the program.
	The Calculator works just like a normal calculator. Just click on the calculator's keys with the mouse or use the keypad on the keyboard to indicate numbers. The Off button makes the calculator disappear.
	The Diary is a private tool where you can write down your your thoughts and secrets. Just type in your own password. You have a total of nine pages to use. Anything you write is automatically saved each time you quit.
	Paintbox is a full-featured paint and drawing program. For information on how to use Paintbox, see the chapter in this User Guide titled, <i>Creating Pictures, Animations, and Multimedia Stories</i> .



Different Creative Tools Available (Continued)



Animation is a powerful activity that lets you create your own animated (or moving) characters or objects using existing clip art or your own drawings. Like Paintbox, Animation lets you create a picture and color it. Or, you can load a picture you've already created. Then, it takes your picture one step further, letting you add movement to it.

For more information on using Animation, see the chapter in this User's Guide titled, *Creating Pictures, Animations, and Multimedia Stories*.



Multimedia allows you to create your own multimedia stories using words, pictures, animations, and sounds. You can use either the pictures or animations you've already created, or you can pick from a large selection of pictures and animations that come with **Sierra's School House**. Before you begin using Multimedia, we recommend that you look through the chapter in this User's Guide titled, *Creating Pictures, Animations, and Multimedia Stories*.

About the Theater Lab Button



When you click on the Theater Lab button, you go to a menu screen that contains a number of subjects which have been wonderfully animated.

Some subjects are in the form of Multimedia Explorations, which look and sound like mini-movies. In these, you might learn about different star constellations in the sky or see how water and rain play a big part in the earth's life-cycles. Other subjects are in the form of Edumations, which are wonderfully animated "mini-lessons" on different subjects, designed specifically for the **Sierra's School House** package you have purchased.

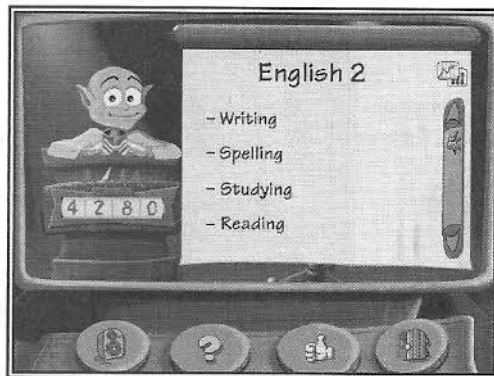


Chapter 4 – Tips for Using the Learning Lab

Entering and Exiting the Learning Lab

How to Enter the Learning Lab

1. To enter the Learning Lab, you must first be in Adi's Place, which is the main screen of *Sierra's School House*.
2. Now click on the Learning Lab button shown at the far left of the button bar. The Learning Lab menu screen will appear, with all of your available subjects.
3. Click on the subject you want to access in the Learning Lab. Adi will ask you to put in the correct CD. For example, put in your Math 2 disc and then click OK.
4. You'll see the starting screen for the subject you've selected. Adi will roll-out a screen of chapters.
5. You can either select a chapter by clicking on it directly or by clicking on the Thumbs Up (OK) button to proceed through the subject in order from the first topic. Either action you take will bring you to another screen which displays the specific exercises available within each "chapter."



How to Exit the Learning Lab

To exit from anywhere in the Learning Lab, you must click on the Exit button (the Door) or press the Esc key until the system asks you if you're sure you want to leave the Learning Lab. Click on Yes. You'll first go to the Exit Report Screen, where you'll get a summary of the progress you've made in the current Learning Lab session. When you're finished, click on the Exit button (the Door) to leave. Then Adi will ask you to put in the Environment CD (Disc 1).



Basic Features in the Learning Lab

Once you are in the Learning Lab you will come to the Opening Screen. Click on a topic to see all of the exercises available.

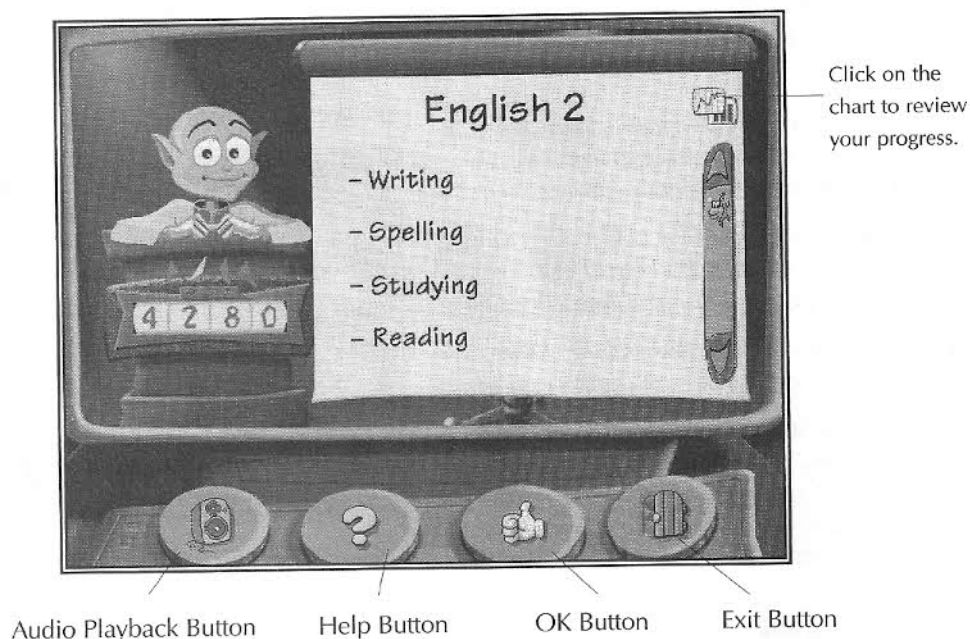


Figure 10. Sample Learning Lab Opening Screen.

You'll notice four buttons on the bottom of the Opening Screen. These are standard buttons that you'll see often while you're in the Learning Lab.

- Click on the Audio Playback button to hear Adi's last set of instructions.
- While you're in the exercises themselves, click on the Help button to see more information and rules about the specific subject covered in the exercises.
- Click on the OK button (the Thumbs Up) to proceed to the next screen or exercise.
- Click on the Quit button (the Door) to exit from the current screen or exercise.

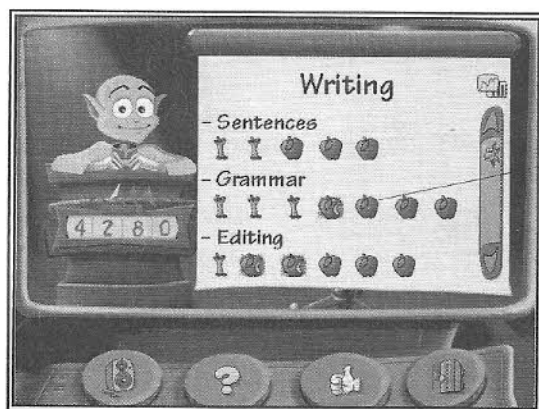
Selecting a Topic

Once you arrive at the Learning Lab Opening Screen and Adi has displayed a list of chapters available on the screen, you can continue to click on the OK button (the Thumbs Up) to proceed to the first exercise.

Or, you can simply click on a chapter displayed on the screen. If you click on a displayed chapter, you'll arrive at another screen which displays the specific number of exercises available within that chapter.



Selecting Exercises from the Subchapter/Exercise Screen



Each graphic (in this case, an apple) represents an exercise covering a specific subject. Click on the graphic to go to an exercise screen.

Figure 11. Sample Subchapter/Exercise Screen.

Once you've selected a topic in the Learning Lab Opening Screen, you should see a subchapter/exercise screen similar to the one shown above.

You'll notice a series of graphics beneath each topic. For the above example, each set of exercises is represented by an apple. Clicking on an apple takes you to a set of five or more questions covering a certain subject. The first exercise will be highlighted. You can click to select it, or go out of order by clicking on another exercise.




To find out the subject of each exercise, simply move your mouse (without clicking) on top of each apple. An information box will appear showing you the subject matter covered in that particular exercise.

Understanding the Status of Exercises

As you may have noticed in the previous screen, the apples appeared in three different ways: as an apple core, as a partially eaten apple, and as a whole apple. Each of these three views represents the status of each exercise.

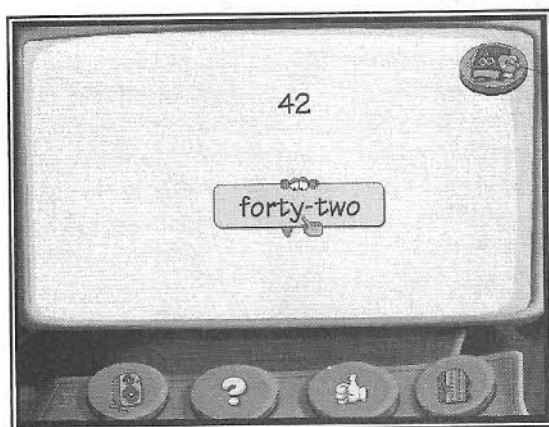
If you see:

It means:

 A complete apple	You haven't yet completed the exercise that the apple represents.
 A partially eaten apple	You've attempted the exercise but were unsuccessful.
 An apple core	You've successfully completed this exercise.

Going Through the Exercises

Once you've selected an exercise, you may see a screen very similar to the one shown below.



Resource Icon.
Where this icon appears in the exercises, it will take you to other information which can help you complete the specific exercise.

Figure 12. Sample Screen.

Depending on the type of exercise you're in, you may need to either select the right answer from a series of choices, flip through several answers in one area on the screen, "drag and drop" the answer into its proper place, or type something from the keyboard.

Using the Learning Lab's Help Screen

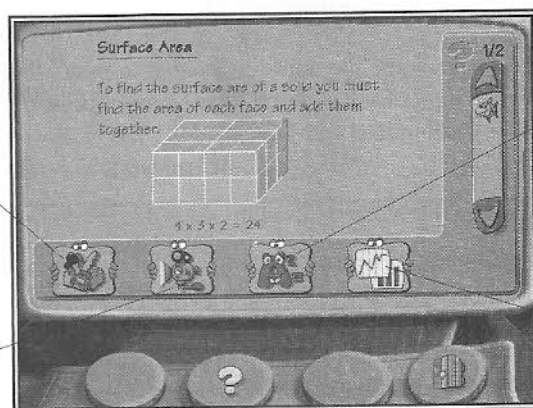
When you click on the Help button while in any of the exercises, it takes you to a Help Screen similar to the one shown below.

The Toolbox.

Click here to use the Calculator and Notepad tools to help you answer the questions.

The Theater Lab.

Click here and select an Education for a quick animated lesson.



The Hypertext Glossary. Click here to see other rules and help topics on your specific subject.

The Progress Report.

Click here to see your progress in the exercises.

Figure 13. Sample Help Screen.

The information you'll see on the Help screen is related to the specific exercise you are in. To view all of the Help information, click on the down-arrow or up-arrow shown in the fish scroll bar to the right of the screen.

Once you've finished looking up information, click on the Exit button (the Door) to return to the exercise.



Working with Different Types of Exercises

There are different ways to answer the questions. In this section, you'll see examples of the different styles of exercises you may encounter.

Exercise Style #1: Flip Through Several Answers

If you look closely at the sample exercise screen previously displayed in Figure 12, you'll see an example of the "Flip Through Several Answers" style of exercise. This exercise style requires you to click repeatedly in the same place to "flip through" all of the possible answers.

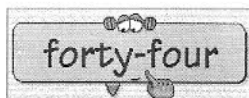


Figure 14. Three or More Possible Answers Can Be Displayed in the Same Answer Box.

When the correct answer appears in the answer box, click on the OK button (the Thumbs Up).

Exercise Style #2: Simple Button

In general, two or more answers may be displayed below the question, as shown in the following example.

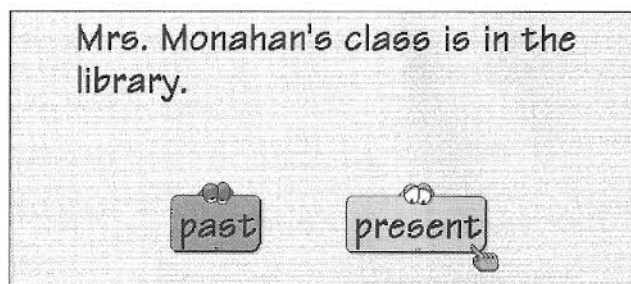


Figure 15. Selecting from More Than One Displayed Answer.

In this exercise style, you must click on one or more items on the screen. The color yellow will highlight your selected answer.

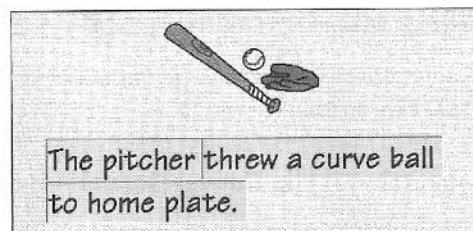
Once you click on the OK button, Adi will tell you if you have the right answer or not. If you didn't pick the right answer, your selection will turn red. Then, if there's more than one other answer to choose from, Adi may ask you to try again.

The correct answer will be displayed by a green color border around the item.

Variations to Exercise Style #2

Instead of seeing a button or series of buttons, you may see a series of text segments, broken up within a sentence:

NOTE: In some of the exercises, you may also see several graphic images which you need to select from.



Exercise Style #3: Drag and Drop Answers Into Place

In this style, you must select the correct answer from several displayed items. Once you've clicked on what you believe is the correct answer, you must also "drag" this answer to the correct place in the exercise, then "drop" it into place.

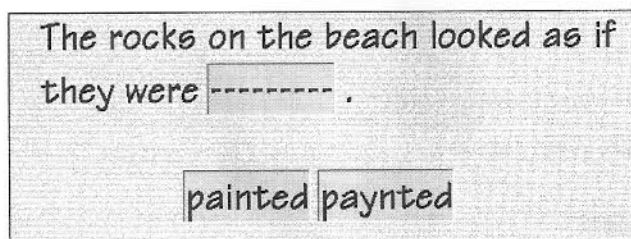
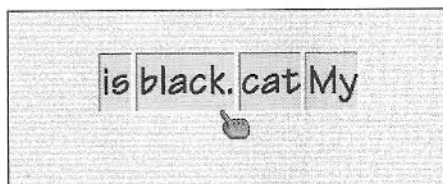


Figure 16. Selecting an Answer and Dragging it to a New Location.

As soon as you click on an answer, that answer will be automatically attached to your cursor. By clicking again in one of the identified areas, you will automatically "drop" the answer into the appropriate place. When you have finished placing the answers, click on the OK button.

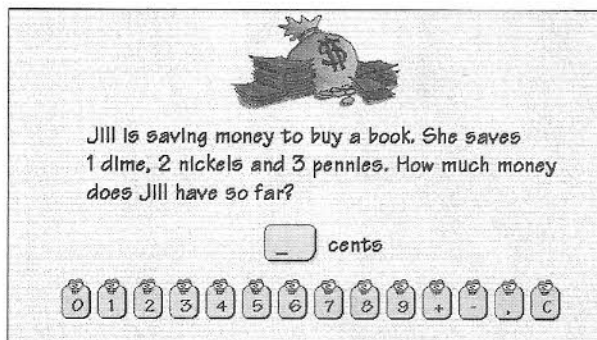
Variations to Exercise Style #3

One variation to the "Drag and Drop" style is called "reordering." In this type of exercise, you might see several scrambled words or numbers. You must select each word or number, and "drag or drop" it into the right place:



Exercise Style #4: Numbered Keyboard

In many of the math exercises, you may come across the "Numbered Keyboard" exercise style shown below.



Jill is saving money to buy a book. She saves 1 dime, 2 nickels and 3 pennies. How much money does Jill have so far?

cents

0 1 2 3 4 5 6 7 8 9 + - . C

Figure 17. Numbered Keyboard Exercise.

In this type of exercise, you may need to add, subtract, or identify certain sets of numbers which make up a specific answer. You can either use your mouse to click on the numbers and symbols shown in the numbered keyboard at the bottom of the screen, or you can type the numbers from your keyboard.

Note that the numbers you select will appear in the answer box from left to right. Clicking on the C (Clear) button clears the farthest right digit.

When you've completed your answer and it appears in the appropriate answer box for the exercise, click on the OK button to continue to the next exercise.

Viewing Your Progress in the Learning Lab

There are two main "progress report" screens that let you see how you're doing in the Learning Lab:

- The Exit Report Screen
- The Progress Report Screen

Using the Exit Report Screen

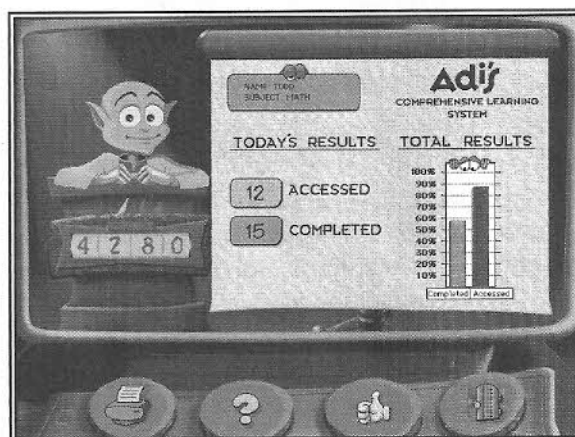


Figure 18. Exit Report Screen.

Each time you attempt to exit from the Learning Lab, Adi will ask you if you're sure you want to exit. When you select Yes, Adi will automatically take you to the Exit Report Screen. From here, you'll see a brief summary of the progress you've made in a subject during that particular session. In the Exit Report Screen, you'll learn:

- How many of the exercises you've accessed during that session. (If you correctly answered less than three of the questions within a specific exercise during your current session the Exit Report Screen would define that exercise as having been "accessed".)
- How many of the exercises you've successfully completed during that session. (If you correctly answered three or more of the questions within a specific exercise during your current session the Exit Report Screen would define the exercise as having been "completed".)

Click on the OK button (the Thumbs Up) to leave the Exit Report Screen and return to Adi's Place.

Using the Progress Report Screen

To get to the Progress Report Screen, click on the Progress Report icon (which looks like a chart). You can find this icon in the top-right corner of the Learning Lab Opening Screen or any Subchapter/Exercise Screen. (While you're in the exercises, you can also click on the Help button, then select the Progress Report button found on the Help Screen.)

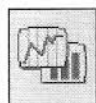


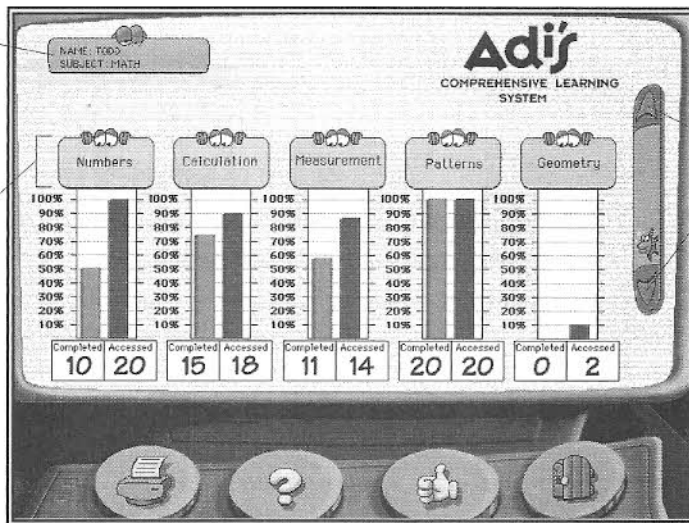
Figure 19. The Progress Report Icon.

Once you click on the Progress Report icon or button, you'll go to the Main Progress Report Screen. There are two different levels of progress details you can access from within this screen.



Information Box.
The contents of this box change based on which level of progress details you're viewing.

Chapter/Subchapter Progress Buttons.
Click on any button, then click on the OK Button (Thumbs Up) to go to a deeper level of progress details.



Up and Down Arrow Buttons. Click on these to view all of the pages in your progress report.

Figure 20. The Main Progress Report Screen.

From the Main Progress Report Screen, you'll see a bar chart for each chapter which shows the total percentage of exercises which have been completed or accessed within that chapter. A total number will also appear in the "Completed" and "Accessed" boxes beneath the chart.

- **Second Level of Progress Details.** This level displays the same type of charts, except that they now apply to the specific subchapters within the chapter you've just selected. Now, you can see if there's a specific subchapter which may need more work in the exercises. (You may need to click on the Down-Arrow button beneath the fish to see all of the subchapters displayed).

Chapter 5 – Creating Pictures, Animations, and Multimedia Stories

Previously in this User Guide, we mentioned three advanced activities found on the Creativity Toolbox menu screen. These are Paintbox, Animation, and Multimedia.



Figure 21. Paintbox, Animation, and Multimedia.

Where Do I Start?

Paintbox, Animation, and Multimedia each come with two different levels of use. Level 1 is for beginners to learn the basic features in the activity. Level 2 is for more advanced use of the activity.

We recommend that you learn these activities in the following order:

- Paintbox Level 1, then Level 2
- Animation Level 1, then Level 2
- Multimedia Level 1, then Level 2

Common Features Shared by Paintbox, Animation, and Multimedia

When you start any of these three activities, you will see parts of the screen that look the same. Many of the buttons are also the same, as shown in Figure 22.

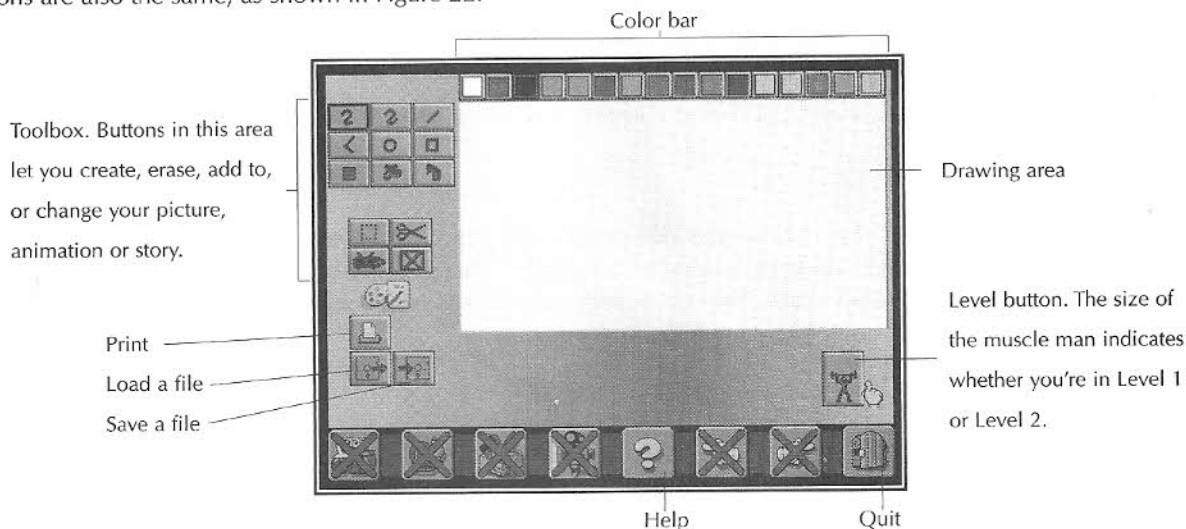


Figure 22. Common Features to All Three Activities Screens.

In the "Toolbox" area, note that the actual tools available will change depending on whether you are using Paintbox, Animation, or Multimedia.



Using the Help Button for Learning



When you first start Paintbox, Animation or Multimedia, it's a good idea to click on the Help button. This will give you some information to help you learn about the buttons available on the screen to create pictures, animations, or stories.

Here's how to use the Help button to find out about a specific feature on any of these activities screens:

1. Click on the Help button. The cursor will turn into a pointing finger with a question mark on it. This means you are in Help mode.
2. Click on any button on the screen to get information about what that button does. When you've learned enough about the button you selected, click with your right mouse button or press the Esc key to return to Help mode and select another button.
3. When you are done using Help, click on the Help button again to exit Help mode. Your cursor will return to normal.

Using the Level Button to Change Levels

To change levels in any activity, click on the Level button (the muscle man) located at the bottom right of the screen.



Level 1



Level 2

Figure 23. The Level Button.

Saving Pictures, Animations, or Multimedia Stories

When you save your work in any of these three activities, you can choose to save it directly to a diskette as well as to the hard drive. To save follow these steps:

1. Click on the Save button, located at the bottom left of the screen. A new screen will appear.
2. Move the blinking cursor (using the arrow keys on your keyboard) to the beginning of the line. This line reads 'noname' initially, which is the name your work would be given if you didn't save it under another name.

Let's assume the name we'll save it under is: **GATOR**. Names can be no more than eight letters long and cannot have spaces in them.

3. If you are saving your work to a diskette in the A drive, type **A:GATOR** and click on OK. (If you were saving to the B drive, you would type **B:GATOR** instead.)

To save your work just to the hard drive, you would simply type **GATOR** and click on OK.

Creating Pictures with Paintbox



Paintbox lets you do the same things you might do with pencils and crayons, only on the computer instead of on paper.

Paintbox, Level 1

At the first level, you can draw, color, create pictures, and save or load them. You can also print your pictures.

Here's what Paintbox looks like at the first level:

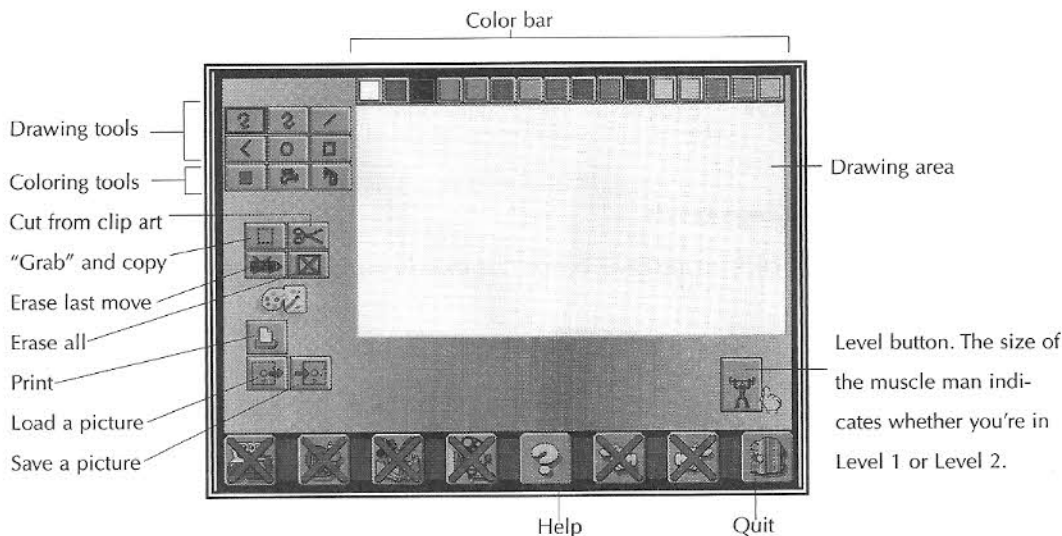



Figure 24. The Paintbox Screen, Level 1.

Learning Paintbox, Level 1

The easiest way to show you how to use Paintbox is to start drawing a picture with it. We'll draw a winter picture, complete with its own snowman! For now, we'll stay in Paintbox, Level 1.

1. Make sure you are in Paintbox, Level 1.
2. Now click on the Circle  drawing tool to start drawing our snowman. We'll make three circles total: A small circle for the head, a bigger circle for the middle, and a large circle for the bottom of the snowman.



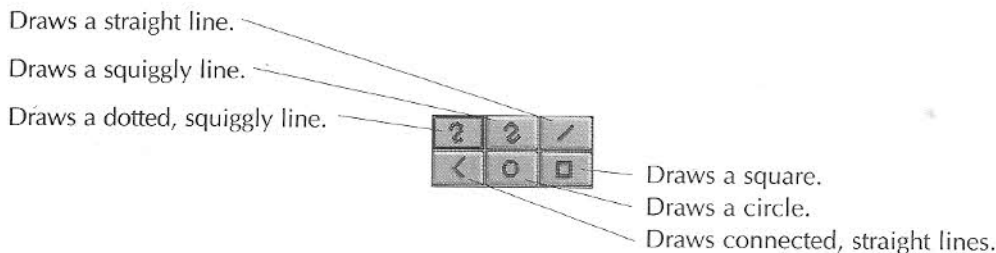


Figure 25. Drawing Tools in Paintbox.

If you have any trouble drawing, you can erase the last thing you drew and start over with one of the following buttons:




This button erases the last thing you did on the page. Try not to confuse it with the next button, shown below.



Be careful! This button erases your whole drawing.

TIP! If you are in the middle of drawing an object and want to start over, just click on the right mouse button. Your drawing tool will still be selected, but you can start drawing it again. Clicking on the right mouse button also lets you "release" the cursor from the drawing area. Click on a tool and experiment with the right mouse button to see how it works.

3. Try out some of the other drawing tools. Try adding a tree and a house to our winter scene. Why not put a chimney on the house with smoke puffs coming out?
4. Time to color the snowman. First, click on the color you want in the color bar at the top of the screen.

Then click on the Water Faucet  coloring tool and move your cursor to the inside of one of the circles. Click on it and it will instantly "fill" with color. Click on all three circles to color them all. (You can color your tree and house, too, if you want! Just click on the colors you want in the color bar.)

There are three coloring tools:

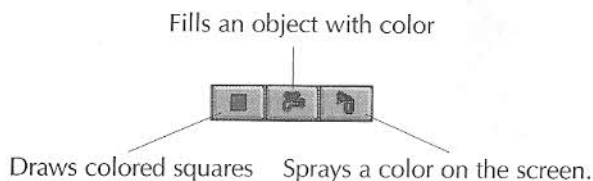





Figure 26. Coloring Tools in Paintbox.

5. Next we'll put some falling snow around the snowman!

Click on the Spray Paint  coloring tool and select white from the color bar. Experiment with the Spray Paint tool using the left and right mouse buttons.

6. Let's add a hat and some hair to the snowman's head. We can find a hat in **Sierra's School House's** supply of clip art!

7. Click on the Scissors  tool to choose from the library of clip art available. Use the Forwards (right-arrow) or Backwards (left-arrow) button to explore all of the clip art available.

8. Click on the hat and hair  in the clip art. Paintbox will then "cut" the image from the clip art library and let you "paste" it anywhere in your drawing.

9. Now let's copy the hat and move it somewhere else on the screen. First, you have to show which part of your drawing you want to copy.

Click on the Dotted Square  button next to the Scissors. Now draw a box around the hat and click to "anchor" it.

When you move your mouse around the screen, you'll see that the hat now moves with it. You've just made a copy of it!

Move the copy to a blank area on the page and click on it. (You can place this image many times on your screen, just as you did with the clip art.) To stop placing the hat, click with the right mouse button.

10. Let's save our picture. (You can also print it with the Printer button. If you are printing for the first time, **Sierra's School House** will ask you to select the correct printer and printer port before starting to print.)

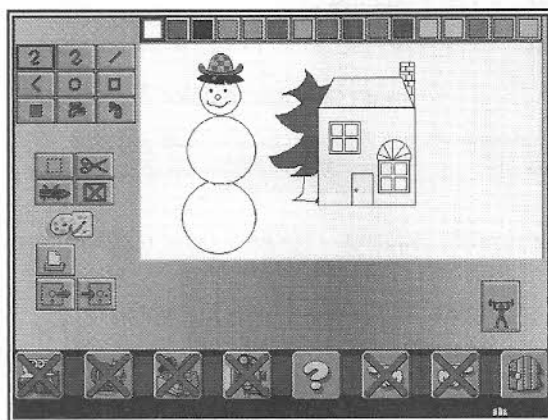
Click on the Save  button, type **Snowman** for the name and click the OK button.



Load

You can use the Load button to load your **Snowman** picture (or any other picture that comes with **Sierra's School House**) and add to it or change it in Paintbox.

Here's how our version of the finished picture looked! How about yours?



Paintbox, Level 2

At the second level, Paintbox lets you add more effects to your drawing and use the magnifying glass for more detailed work.

Here are the added features you'll find in Paintbox Level 2:

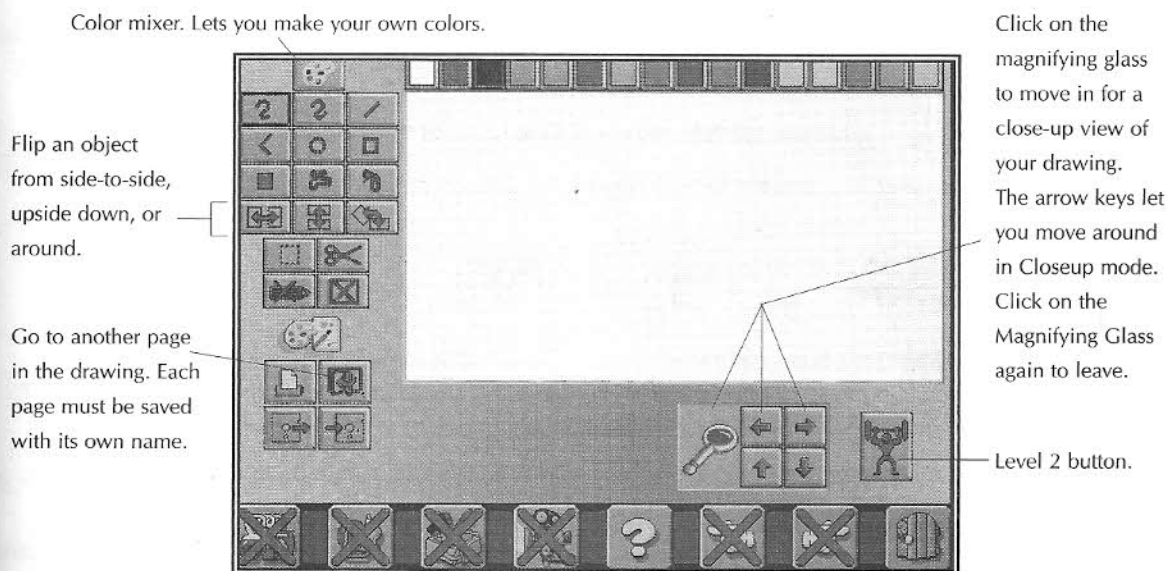





Figure 27. The Paintbox Screen, Level 2.

Learning Paintbox, Level 2

Just like we did in Level 1, we're going to draw a simple picture to see how the new features work in Level 2.

1. Make sure you are in Paintbox, Level 2. You should see a large muscle man at the lower-right of the screen.
2. First load our **Snowman** picture we created in Level 1.
3. Now click on the Change Page  tool to add a second page to our Snowman drawing. You can click on the Change Page tool to switch back and forth between the first and second pages of your drawing. Note that you must save each of the two pages under its own separate name before quitting Paintbox.
4. Click on the Scissors tool and find the hat  clip art again. Place it somewhere at the bottom of your second drawing page. When you're finished, click on the right mouse button to release the hat from the cursor.

- We're going to learn how to flip the hat around and rotate it. First, select the hat with the Dotted Box button. Click on the Flip Upside-Down  button and place your new copy of the hat somewhere else on the page. This is one of three new drawing tools you'll find in Level 2.

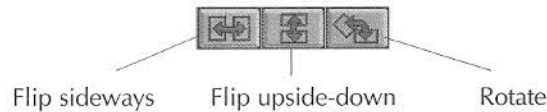



Figure 28. New Drawing Tools in Level 2.

- Play around with the other two drawing tools until your hat appears at four different angles on the screen, as shown below.



- Click on the Magnifying Glass button to zoom in and see the details of the hat. This puts you in Zoom mode. From here, you can move around your drawing using the arrow keys next to the magnifying glass. To view your whole picture again, click on the Magnifying Glass. You'll return to Normal mode.

- What if you wanted to color part of your drawing but couldn't find the right color on the color bar?

With the Color Mixer  button, you can change one of the existing colors to a new color. Click on the Color Mixer button now. A new screen appears as shown.

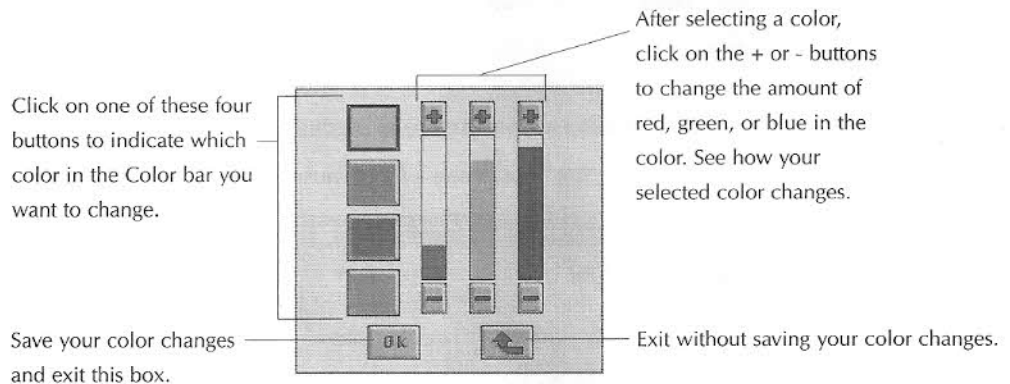


Figure 29. The Color Mixer Screen.

Select a color from the four boxes on the left of this screen and change it by adjusting the levels of red, green, and blue in the color. When done, click OK. Now you can use the newly mixed color in your drawing.

- Let's save the second page of our drawing under the name Hat. We'll use it again later in the Animation activity.

Creating Your Own Animations with the Animation Tool



If you've ever seen a cartoon, you're already familiar with animations. An animation is a series of separate pictures (often hundreds or thousands) which, when shown quickly together, give the illusion of movement. We often call each picture in an animation sequence a frame.

For example, we could draw an elephant inside a circle, as shown.



If we wanted to make him move around inside the circle, we would create a series of pictures or frames as shown below.



Frame #1



Frame #2



Frame #3



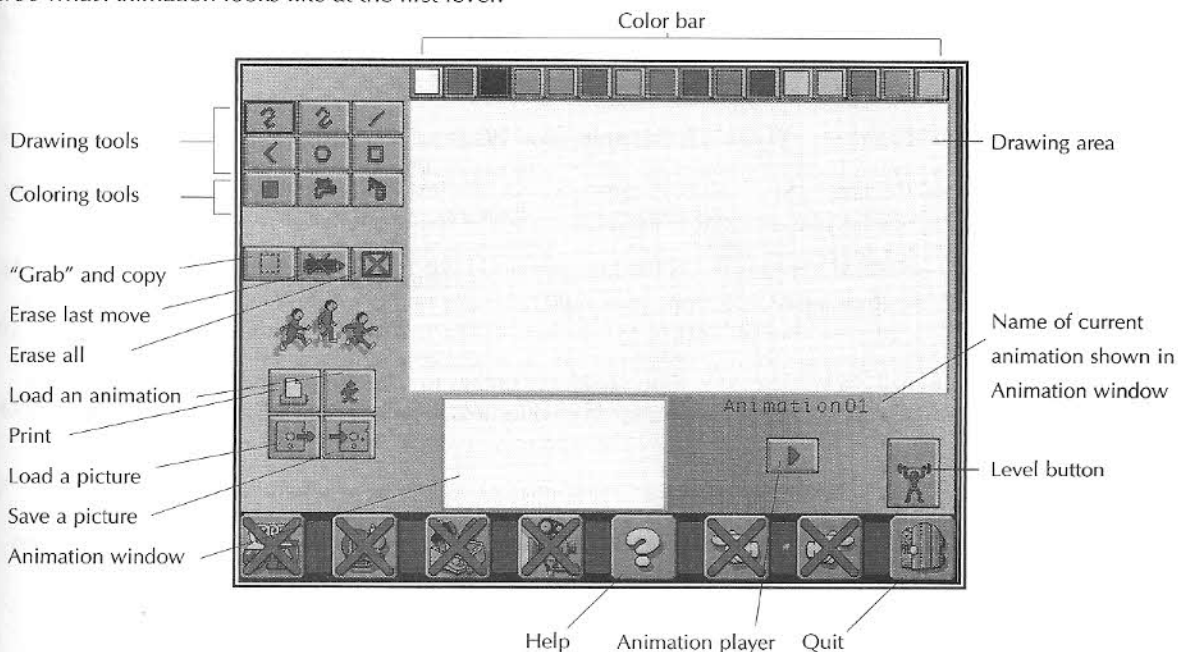
Frame #4

Figure 30. An Animation Sequence.

By showing each frame quickly, one after the other, it would look like the elephant is moving around inside the circle!

Animation, Level 1

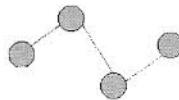
At the first level of the Animation activity, you can make your own simple animations using one or more objects. Here's what Animation looks like at the first level:




Learning Animation, Level 1

The easiest way to show you how to use Animation is to take you through the steps of drawing a simple animation. First, we'll draw a ball and make it bounce up and down. Then we'll make our hat flip upside-down and around.

Making a Ball Bounce Up and Down (One Object)



1. Make sure you are in the Animation activity, Level 1. To get to Animation, click on the Tools/Activities button in the button bar. When the Activities menu screen appears, click on the Animation icon.
2. Now, let's load our Hat picture we created in the Paintbox section. Use the Load button and click on the Forwards button to find the picture named Hat. Click on this image and it will come up in Animation's drawing area.
3. We'll work with the hat later. For now, let's use the Circle drawing tool to draw a small circle as big as this one on the page: 

NOTE: The size of the object you plan to animate is important because it must fit in the Animation window shown in Figure 31.

Notice you have all the same tools for drawing, coloring, and erasing in Animation as you did in Paintbox. (The only thing you can't do in Animation is flip objects, zoom in on them, or load clip art into your drawing. To do the most with your drawing, it's best to use Paintbox first.)

4. To create an animation, we must first place an object in the Animation window. Use the Dotted Box button to grab the circle and copy it. Now click at the bottom right of the Animation window to place the circle as shown.



Figure 32. The Animation Window.

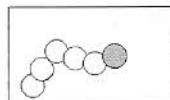
You have just created the first "frame" of your animation. See the text to the right of the Animation window that reads, 1 / 1? That means you are on the first and only frame in the animation.

The **Animation 01** text above it means this is the first animation you have created from your Hat picture. As you'll see later with the Running Man button, you could have any number of animations attached to one picture.


To make sure the animations you create will be saved, remember to save the picture you are working on before quitting Animation. The animations you've created for it will be automatically saved along with the picture.

5. Notice that after you place the circle, an image of it is still attached to your cursor.

Continue to place the circle in 5 or 6 other places inside the Animation window, as shown. Then, click on the right mouse button to release the image from your cursor.



Each time you click on an area in the Animation window, you create a new frame for your animation. An animation can be made up of as many as 50 separate frames!

6. Now, let's click on the Animation Player  button to play the animation we just created. See how the ball moves in the Animation window? Congratulations! You just made your first animation!
7. If you plan to quit Animation without going on to the next exercise, click on the Save button to save your animation and the changes you've made. When it asks if you want to replace the earlier Hat picture, click OK, then click on Yes.

Flipping a Hat Around (Using More Than One Object) and Adding Frames to An Animation






1. Let's make another animation for the **Hat** picture. We will make our hat flip around in a circle and land upright again. (You should still be in the **Hat** picture. If you aren't, click on the Load button and find the **Hat** picture before you continue).
2. Click on the Running Man  button to load an animation. An Animation selection screen appears as shown:



Figure 33. The Animation Selection Screen.

3. To create a new animation for our **Hat** picture, click on the New icon. When you return to the Animation screen, you'll notice the Animation window is blank and its new name, **Animation 02**, appears to the right of the window.
4. Using the Dotted Box button, grab the upright  hat and place it in the middle of the Animation window. Now release the image from the cursor by clicking on the right mouse button.
5. Go back to your drawing area, and grab the hat  that faces right. Carry it to the Animation window and place it to the right of where you last placed the hat. Once it's placed, release the image from your cursor by clicking on the right mouse button.
6. Repeat Step 5 with the upside-down and left-facing hats in your picture. End the animation sequence by placing the upright hat in the same position in the Animation window as it was when you started.

NOTE: Although we are using our hat to create each frame of the animation, we are not using the same object each time, as we did to make our ball bounce.

7. Click on the Animation Player button and watch your hat turn upside-down and land upright again. It should look something like this:



8. Save your Hat picture again so that both animations will be saved. Our bouncing ball will be saved under the name **Animation 01**, and our twirling hat under **Animation 02**.

Animation, Level 2

At the second level of Animation, you can erase a frame in your animation, add new frames, or delete your animation altogether. Here are the added features you'll find in Animation Level 2:

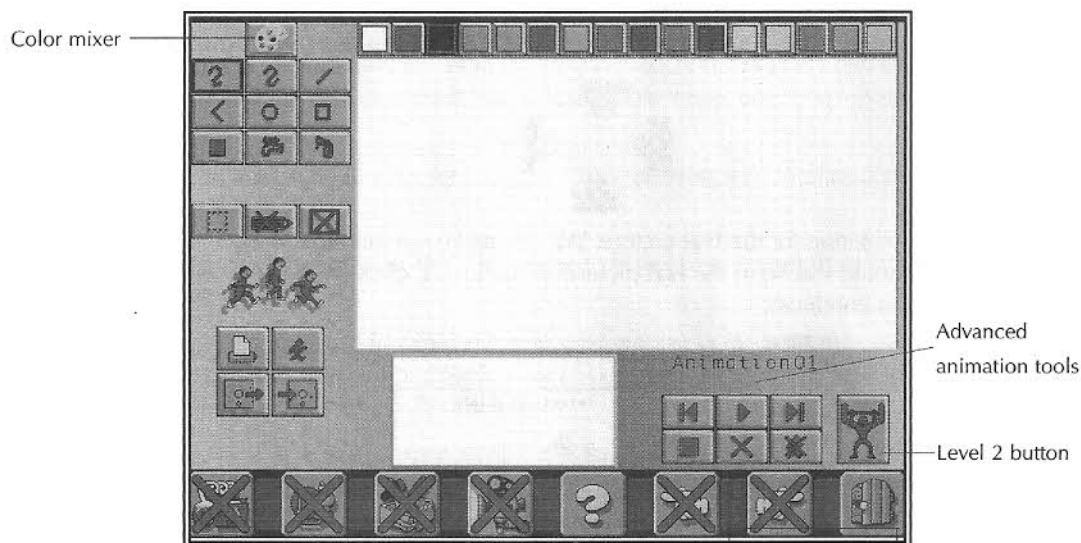


Figure 34. The Animation Screen, Level 2.



Learning Animation, Level 2

To help you learn about the advanced animation tools available in Level 2, we'll use one of our previous animations as an example.

1. Click on the Level button to make sure you are in level 2. This button should display a large muscle man.

If you no longer have your Hat picture on the screen, load it into Animation with the Load button. Once it appears in the drawing area, click on the Running Man button and select Animation 02 from the Animation selection screen. The first frame of the hat animation should now appear in the Animation window.

2. Let's take a look at each frame we placed in the hat animation. To go forward or backward one frame at a time, you need to click on two of the advanced animation tools available in Level 2.

These are the Reverse  and Advance  buttons. Play around with them now to see how they work. The top three buttons of the advanced animation tools work a lot like the buttons on a tape recorder.



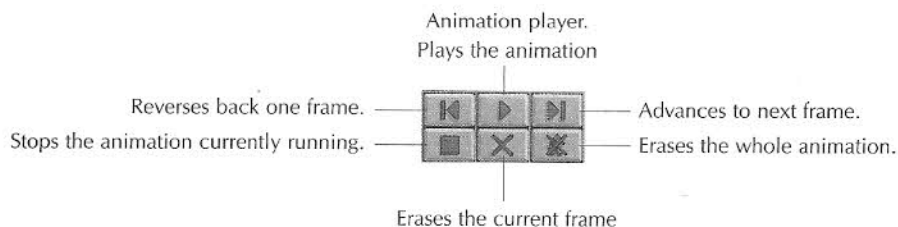






Figure 35. Advanced Animation Tools in Level 2.

3. Go now to the third frame in the hat animation. Try adding a frame the same way you did earlier: just grab an object on your drawing screen and place it in the Animation window. Click on the Animation Player button to see what happens.
4. We'll remove the frame we just added. Try finding it using the Reverse and Advance buttons.

Click on the Erase Frame  button when the correct frame appears in the Animation window. Be careful not to confuse the two Erase buttons!

 This button just erases the current frame that appears in the Animation window.

 Careful! This button erases the entire animation.

5. Save your Hat picture again with the Save button.
6. To exit Animation, click on the Quit  button.

Now that you've experimented with the features in both levels of the Animation activity, why not create a new drawing and think up your own animations for it? You're sure to enjoy hours of fun with this activity as you use your ideas to make your own animated cartoons!

Creating Multimedia Stories with Multimedia



A multimedia story combines several different forms of communication (words, pictures, sound, and animations) at once.

Multimedia lets you create a story that literally comes alive on your computer! All you have to do is combine your written story with pictures and animations you've already created in Paintbox or the Animation activity.

When your story is finished, it will be "interactive." An interactive story lets you click on certain pictures, words, or areas on the page as you are reading it. When you click on these areas, you'll see an animation or hear a sound that adds to your understanding and enjoyment of the story. In effect, the story "interacts" with the person who reads it.

To make multimedia stories, you can use either your own pictures and animations or those that come with **Sierra's School House**. You can also choose from our library of over 100 sound effects for your story.

Once your story is created, it will automatically appear in the Games menu screen displayed when you click on the Games button. That way, you can view it anytime as its own animated story. To edit your story, however, you must always open it from within the Multimedia tool.

Multimedia, Level 1

Let's see what Multimedia looks like at the first level:

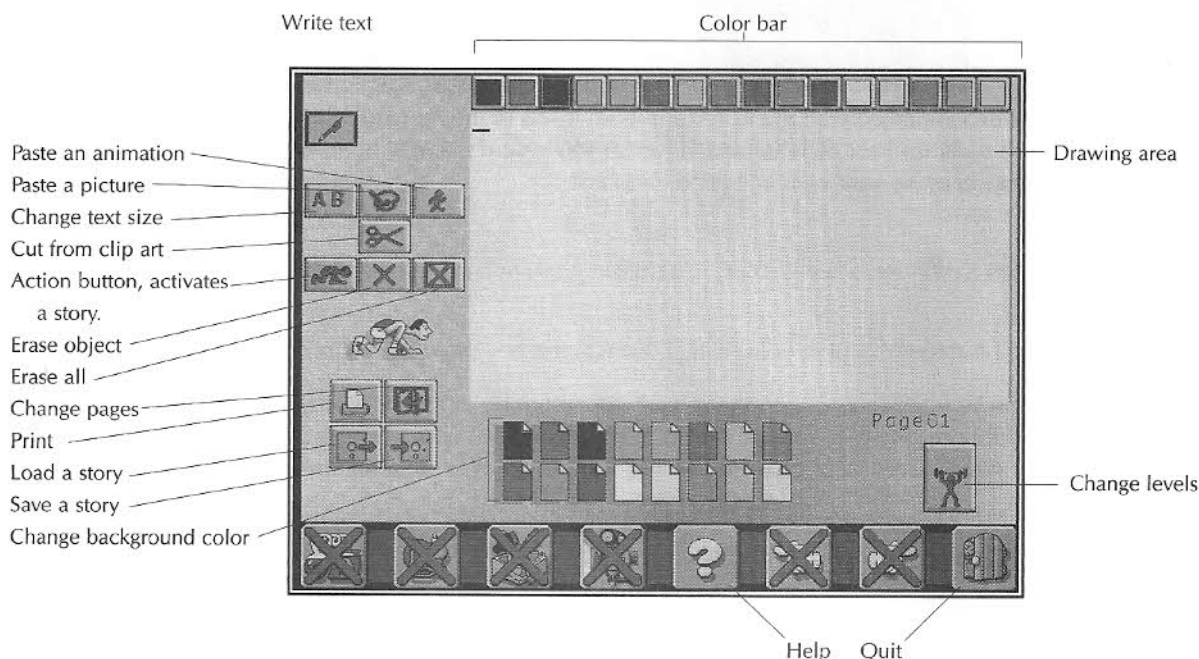


Figure 36. The Multimedia Screen, Level 1.



Differences in Multimedia


Many of the buttons you've seen in Paintbox or Animation work differently in Multimedia.


Load and Save Buttons


You'll notice the Load  and Save  buttons work differently in Multimedia.


In Paintbox and Animation, you can load or save only pictures with these buttons. In Multimedia, you can load or save only stories you've created in Multimedia. (Multimedia has other buttons that allow you to load pictures and animations into your stories.)

You can easily tell the difference between a picture, a picture with animations, an animation, and a story by how they appear on the different selection screens in the Multimedia activity:



 (Multimedia Story)
This is how a multimedia story appears on the selection screen when you click on the Load a Story button.

 (Picture)
This is how a picture you've created appears on the selection screen. Pictures that come with **Sierra's School House** will be shrunk to this size in the selection screen.


 (Picture with Animations)
When you try to load an animation, you'll often see this image displayed on the selection screen. This screen shows only the pictures which have animations attached to them. The animated pictures that come with **Sierra's School House** will also be shrunk to size in the selection screen.

 (Animation)
The Animation selection screen displays all animations attached to a picture. These images, similar to the **Animation 01** image on the left, are the first frames in each animation you've created.

The Erase and Turn Page Buttons

 The Erase button works differently here than it does in the Animation or Paintbox activities. Instead of erasing only the last object drawn or current frame, this button lets you erase any object you select on the screen. When you click on this button, your cursor will change to look like this: 


Just select an object on the screen and it will be erased. You can even select an active zone around the object and erase it.

 The Turn Page button allows you to create a new page for your story or go to another page. Unlike Paintbox, these pages are created automatically and are saved in the same file under the names Page 01, Page 02, etc. When we discuss Level 2 features, you'll see how this tool can help you create advanced multimedia stories.

Learning Multimedia, Level 1

To learn how Multimedia works, we'll start by loading an existing multimedia story and experiment with it. Then we'll create our own multimedia story.

Loading an Existing Multimedia Story

1. Make sure you are in Multimedia. To get to Multimedia, click on the Creativity Toolbox button on the button bar. When the Creativity Toolbox menu screen appears, click on the Advance button (the right-pointing finger) to see Multimedia. Then, click on it.
2. Next, click on the Load a Story  button and select the Train image from the selection screen.
3. The Train story should be loaded on the screen and appear as shown:

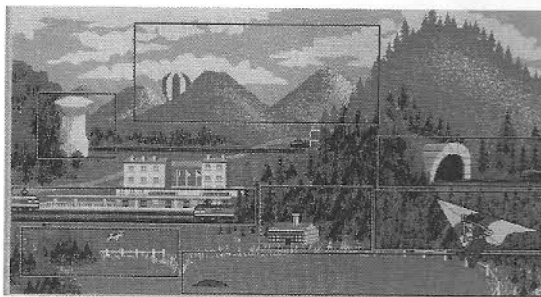



Figure 37. A Multimedia Story with Active Zones.



Notice all of the boxes in this picture? These are active zones. When you click on an active zone, the story comes alive! Before you can click on any of these zones on the screen, you must first "activate" the multimedia story.

4. To activate the story, click on the Action  button. The boxes you noticed earlier on the screen have disappeared.
5. Now move your cursor around the screen. When your cursor turns into a pointing finger, it means you are in an active zone. Click on it to see what happens.


Creating Your Own Multimedia Story


Since we've already created our own **Snowman** picture in Paintbox and our twirling hat animation in the Animation activity, we'll use them here in our multimedia story.

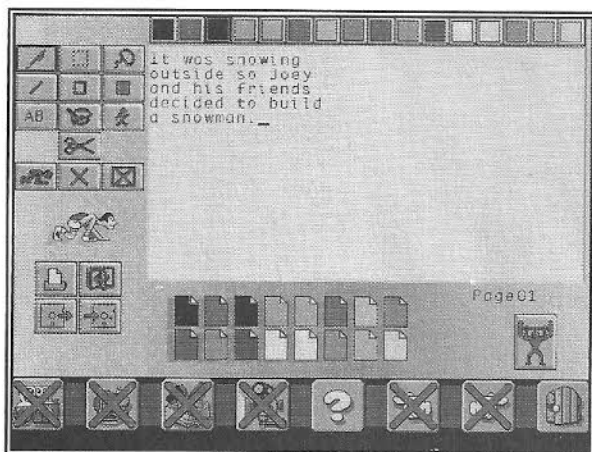
Can you think of a good story to write about the snowman and his hat?

1. First, let's make sure the Multimedia screen is blank. To clear the screen, click on the Load  button. Then click on New in the selection screen. (You can also click on the Erase All  button to clear the screen.)



- Now click on the Writing Pen  button and start writing your story. Since we'll be bringing in our Snowman picture and twirling hat later, leave some space around the text, as shown.

Your text can be written in any color and in a number of different sizes and styles. Just click on the AB  button to change the size and shape of your text. You can also click on a color in the color bar and continue typing.



- Let's bring in our snowman picture now. To load pictures, animations or clip art into Multimedia, you need to click on the following buttons:

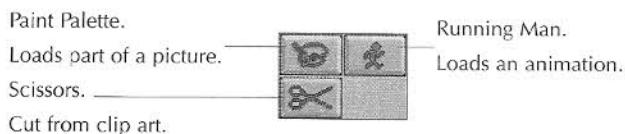




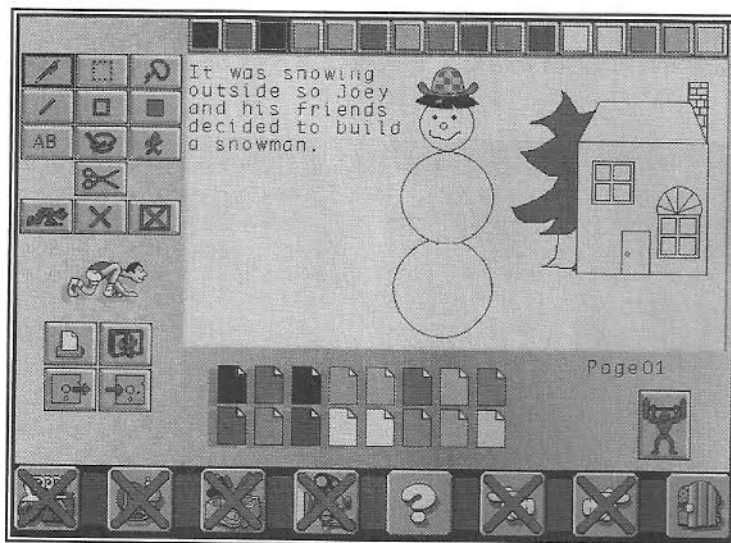
Figure 38. Loading a Picture, Animation or Clip Art.

- Click on the Paint Palette  button. When the selection screen appears, use the Forwards or Backwards button to find and select our **Snowman** picture.


Once the picture appears on the screen, your cursor will have changed to a dotted box as shown: 

Use this box to select part (or all) of the snowman drawing you want to bring into your multimedia story. When you return to your story, the selection will be attached to the cursor.

5. Place the drawing somewhere on the screen. (You may need to move your text around to fit the picture.)



6. Now let's bring in our hat animation.

Click on the Running Man  to load the animation. Select **Hat** from the selection screen. Then, select **Animation 02** from the second selection screen.

The first time you click on the Running Man button, you'll have to choose the specific picture containing the animations you want. Once the picture is selected, clicking on the Running Man will show you only the animations available for that picture.

NOTE: Although you can select as many pictures as you want in your story (with the Paint Palette button), you can select only one picture with animations for any given page of your story. This means you can use only that picture's animations on the page. One page of your story can contain as many as 10 animations from a picture.


7. Bring the hat animation in and place it right on top of the hat on the snowman's head.

Once it's placed, your hat animation will automatically appear on the screen with a box around it, indicating an active zone, as we mentioned earlier.



8. Let's activate the story. Click on the Action  button. Then click on the hat in your story. It will twirl around!

Congratulations! You've just made your first multimedia story! Using the Turn Page button, you can add up to 40 pages to your story.

9. To save your story, click on the Save  button. Type a name for your story and click on OK. Let's call our story SNOW. When it asks if you want a password, click on NO.

Multimedia, Level 2

In Level 1, we learned about creating basic multimedia stories and how an active zone works. By bringing an animation into the story, we automatically created our first active zone.

In Level 2, you get to decide where to put an active zone in your story. In other words, you can decide what part of your story should "interact" with the reader by moving or making sounds when you click on it. You can create up to 10 different active zones per page.

This section tells you how to create new active zones in your story and program the zones to come alive when you click on them. You can program an active zone to play an animation, make sounds, and even go to another page of your story when you click on it.

Here are the new features you'll find in Multimedia, Level 2:

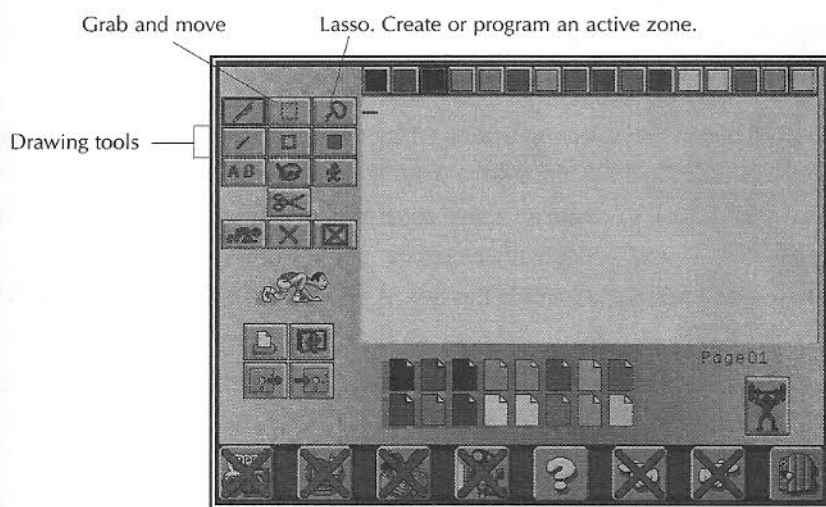


Figure 39. Multimedia, Level 2 Features.

What Can Be an Active Zone?

Any part of your story can be an active zone. It could be a word (maybe a different colored word), or part of a picture, or an animation.

When you load an animation into your story, it automatically creates its own active zone around it. You can still "program" new features for an animation, so that it makes sounds or does other things when you click on it.



Learning Multimedia, Level 2

If you've used Paintbox and Animation, you are already familiar with the drawing tools in Multimedia Level 2.

Note that the Dotted Box button works differently here than it does in Paintbox and Animation. Here, the Dotted Box only lets you move the objects you select on the screen. In Paintbox and Animation, the Dotted Box lets you copy the object first, then move it somewhere else on the screen.

This section will show you how to use the Lasso button to create active zones and program those zones to perform the actions you want when you click on them.




Creating and Programming Active Zones

1. Let's load our Snow story we created in Level 1. Click on the Load button and find Snow using the Forwards button.
2. We're going to add to our story. Type the following text at the bottom of the page:

*"The snowman was bored one day. He decided to play **ball**."*

Can you make the word 'ball' a different color from the rest of the text? It's going to be our active zone in the story.

Remember the bouncing ball we created in Animation? When you click on the word 'ball', we'll program the active zone to make a sound, make the ball bounce, then send you to the second page.

3. Click on the Turn Page  button and select New to create a second page for our story. Finish writing the story on this page. Then return to the first page using the Turn Page button.
4. Click on the Running Man  button and select Animation 01 for the bouncing ball animation. Place the ball animation somewhere at the bottom of the first page of your story.
5. Next, let's click on the Lasso  button to create an active zone. Your cursor will turn into a small lasso. Draw a box around the word 'ball'.
6. To program the active zone you've created, click inside this box. A new screen appears. This is the Active Zone Programming Screen, as shown.

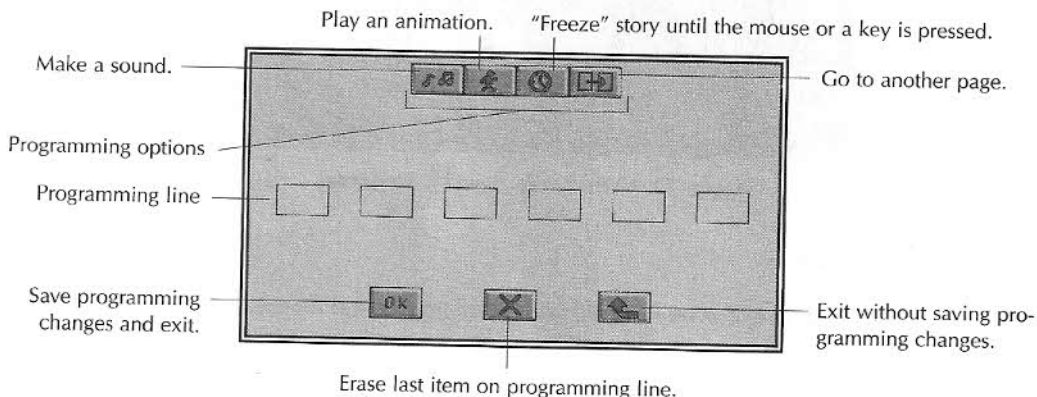




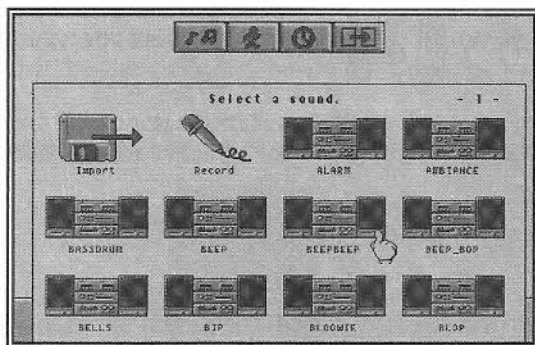
Figure 40. The Active Zone Programming Screen.



At the top of this screen are the programming options you have for your active zone: to make a sound, play an animation, freeze the story until a key is pressed, or go to another page. You can program your active zone to do only one of these things or all of them together. It's up to you.

See the six blank squares that make up the programming line in the middle of this screen? That's how many options you can "program" for one active zone.


7. Click on the Musical Notes  programming option. See how the Notes automatically appear in the first square of the programming line? (If you make a mistake, just click on the Erase  button to erase the last square you have in your programming line.)
8. Now click on the Musical Notes where they appear in the first square of your programming line. A new screen appears and asks you to select a sound. Click the Forwards button until you find and select the **Beep Beep** sound.




When you return to the Programming screen, the name of the sound appears below the square in the programming line.

NOTE: If you choose to play a sound, play an animation or turn a page in your programming line, you must indicate the specific sound, animation or page number you want to use, as we did with our **Beep Beep** sound.

9. After making a noise, we want our ball to bounce.

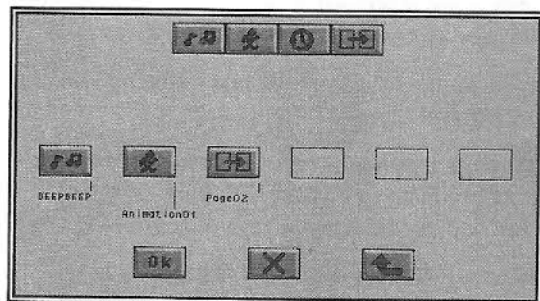
Click on the Running Man  option and click again where it appears in the programming line. Select Animation 01 for the ball animation. (Notice you can choose from any animations you've already placed on the page.)


10. After the ball bounces, we want the story to go automatically to page 2.

Click on the the Turn Page  option and click again where it appears in the programming line. Select **Page 02** from the selection screen.

NOTE: If you are adding animations to the programming line and you want to send the reader to another page, you should always add the Turn Page option at the end of the programming line. The Active Zone programming screen only lets you access animations from the current page you are on.

The finished programming line should look like this:



11. To save it, click on **OK**. Now let's try a test run!
12. Let's activate the story. Click on the Action  button then move to the word 'ball.' Click on the word and see what happens!

After you save this story, you may want to load other multimedia stories that come with the program and explore how their active zones were programmed. To see an active zone, just remember to click on the Lasso button first.

Have fun creating your own interactive stories!



Chapter 6 – Advanced Use

In this chapter, you'll see how to load your multimedia stories into the menu screens to create your own customized multimedia explorations, games, or activities! You'll also learn how to personalize and change the icons and images that appear on the menu screens.

Installing Other Items in Sierra's School House

If you choose, you can add to the items found in any of the menu screens on *Sierra's School House*. You can place any of your own pictures, animations, or multimedia stories you've created in any one of the menu screens. You can even install pictures, animations, or multimedia stories that a friend has created so that they will appear on a menu screen.

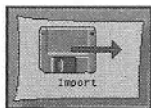
To load other items in any of Adi's menu screens, please do the following:

1. Select the menu screen where you'd like your item to appear. From Adi's Place (The *Sierra's School House* main screen) click on either the Games Gallery button, the Creativity Toolbox button, or the Theater Lab button on the button bar.
2. When the menu screen appears, click on the New icon in the upper-right corner.



If you see the item you want on the new screen that's displayed, click on it with your mouse. Otherwise, proceed to Step 3.

3. Now click on the Import icon and select the disk drive (Drive A, Drive B, or the Hard Drive) that contains your new program or file.



4. Once the program is loaded, it will appear with its own icon on the menu screen you selected.

Changing the Look of Icons and Images

Now we'll show you how to change the look of any icon or image that appears on the menu screens (such as the menu screen for the Learning Lab, the Games Gallery, the Creativity Toolbox, or the Theater Lab).

You'll find the key to changing icons is in the Help  button located on the button bar. Throughout most of *Sierra's School House*, the Help button is there to tell you about the function of certain features or buttons on the screen.

When you're in a menu screen, however, clicking on Help has a totally different effect. Clicking on the Help button here gives you the option to change the way your icons look or sound.

Here's how it works:

1. Click on a button on the button bar to access the menu screen containing an icon you'd like to change.
2. When the screen appears, click on the Help button. Your cursor should turn into a pointing finger with a question mark on it.
3. Now click on the icon or image you want to change. In this mode, instead of starting the story, *Sierra's School House* takes you to the Image Editing screen as shown:

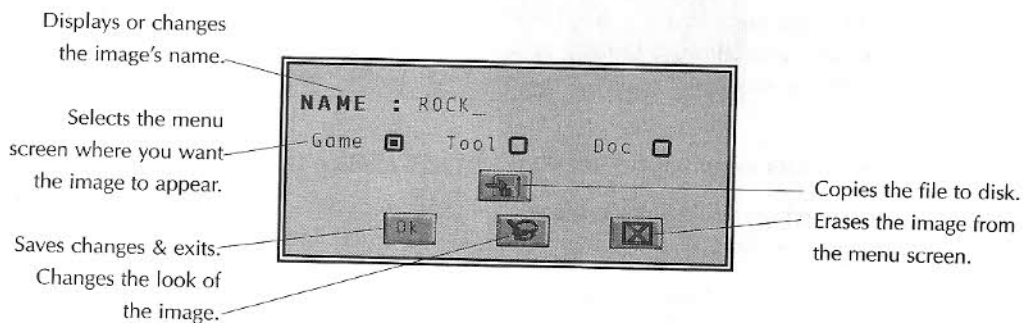


Figure 41. The Image Editing Screen.

4. Click on the Paint Palette button to change the way the image looks on the menu screen. A new screen appears as shown. Experiment with the buttons on this screen.

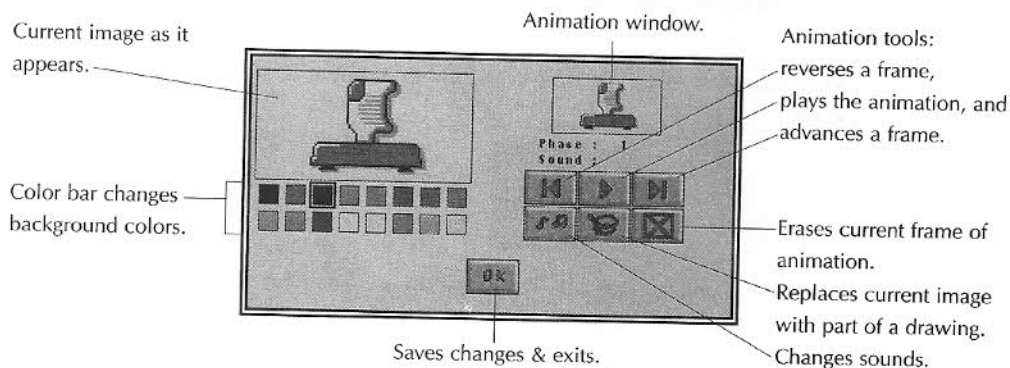


Figure 42. The Image Changer Screen.

Keep in mind, we are only changing the image that appears on the screen, not the actual document or story we created.

5. To save the changes you've made, click on OK. You should see the updated image on the menu screen.



Chapter 7 – How to Get Help

We've tried to make the program and this User Guide as easy to learn and use as possible. If, however, you have questions about using **Sierra's School House** that this User Guide can't answer, feel free to call, write or fax us directly for help.

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(206) 644-7967 (FAX)

Technical Support is also available on-line through:

- The Sierra Bulletin Board at (206) 644-0112. Get answers to our most frequently asked questions. Set your communications program to 8 data bits, 1 stop bit, and no parity (8-1-N).
- CompuServe. Type GO SIERRA at any command ("!") prompt to access Sierra's forum.
- America On-Line. Type the keyword SIERRA to access our forum.

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Outline of Sierra's School House Curriculum

Grade 2 Math

Chapter 1 - Numbers

Writing Numbers

- Writing Numbers through 10
- Writing Numbers through 100
- Writing Numbers through 1,000
- Numbers through 10 from Counters
- Numbers through 100 from Counters

Counting

- Before or After
- Count on or Back, Less Than 20
- Count on or Back, 20 to 100
- Which Picture Shows X Less Than Y
- Counting Exercises

Place Value

- Write the Number Between
- Identify Place Value
- Ascending / Descending Order

Estimation

- Costs
- Number of Items
- More or Less Than 10
- Number of Items in a Picture

Fractions

- Write Fractions $1/X$
- Write Fractions Y/X
- Exercises Using Fractions $1/X$
- Exercises Using Fractions Y/X

Chapter 2 - Calculation

Addition

- Single Digit
- Turn Around Facts
- Two Digit / No Trade
- Two Digit / Trade
- Three Number Sums

Subtraction

- Complete the Addition
- Subtraction from 9 and 10
- Calculate the Difference
- Subtract 9s
- Two Digit Subtraction

Multiplication / Division

- Multiplication from Pictures
- How to Multiply
- Multiplication Exercises
- Division from Pictures
- How to Divide
- Division Word Problems

Applications

- Exercises / Prices
- Exercises / Ages
- Exercises / 1 Digit
- Exercises / 2 Digit



Chapter 3 - Measurement

Length

- Height (Customary Units)
- Length (Customary Units)
- Estimating (Customary Units)
- Measuring Height (Metric Units)
- Estimating Length (Metric Units)

Capacity and Mass

- Capacity (Customary)
- Mass (Customary)
- Mass (Metric)
- Capacity (Metric)

Money

- Addition of Cents
- Counting Dimes, Nickels, and Pennies
- Counting Collections of Coins
- Exercises with Cents
- Exercises with Dollars

Time

- Two Ways of Reading Time
- Tell Time to 15 Minute Intervals
- Tell Time to 5 Minute Intervals
- Calculating Elapsed Time
- Time Exercises

Calendar

- The Month
- Number of Days in Each Month
- The Week

Chapter 4 - Patterns and Functions

Colors and Shapes

- Two or Three Shapes, Find the Next One
- Three or More Shapes, Find the Next Two
- Three Colors, Find the Next One
- What Comes Next?

Numeric Patterns

- Complete the Pattern, by 2s
- Complete the Pattern, by 3s
- Complete the Pattern, Non-Standard
- Complete the Pattern, Non-Standard with Pictures

Skip Counting

- Money
- Skip Counting by 2s, 3s, 4s
- Skip Counting by 5s, 10s, 25s, 100s
- Time by 5 Minutes and 1 Hour

Comparing Numbers

- Greater Than 1 - 99
- Less Than 1 - 99
- Greater Than 100 - 1,000
- Less Than 100 - 1,000
- Find the Greatest or Least Number in Each Box

Ordinal Numbers

- Find 1st, 5th, etc. through 20
- Find 2nd, 8th, etc. through 20
- Find 1st, 5th, etc. / 21 through 100
- Find 2nd, 8th, etc. / 21 through 100



Chapter 5 - Geometry and Data Analysis

Solids

- Identify Solid Figures
- Faces of Solid Figures
- Edges of Solid Figures
- Classify Properties of a Solid

Plane Figures

- Identify Plane Shapes on Solids
- Sides of Plane Figures
- Corners of Plane Figures
- Same Size and Shape
- Perimeter

Symmetry

- Figures with Symmetry
- Letters with Symmetry
- Symmetry on a Grid / Points

Graphs

- Read Data from a Pictograph / Most
- Read Data from a Pictograph / Specific Amount
- Read Data from a Bar Graph / Specific Amount
- Read Data from a Bar Graph / How Many of Each

Probability

- More, Less, or Equally Likely / Number of Things
- More, Less, or Equally Likely / Spinners
- More, Less, or Equally Likely



Grade 2 English

Chapter 1 - Writing

Sentences

- Subjects
- Predicates
- Subject-Verb Agreement
- Complete Sentences
- Complete Subjects
- Interrogative Sentences
- Exclamatory Sentences

Grammar

- Common Nouns
- Proper Nouns
- Singular Nouns
- Plural Nouns
- Subject Pronouns
- Noun Review
- Action Verbs
- Linking Verbs
- Adjectives
- Contractions

Editing

- Capitalization of Proper Nouns
- Capitalization of Addresses / Letters
- Punctuating Ends of Sentences
- Periods in Names and Initials
- Periods in Abbreviations
- Periods in Abbreviations of Words
- Commas in a Letter
- Commas in a List
- Punctuation Review

Chapter 2 - Spelling

Consonants

B, C, D, F, G, H, J, K, L, M, N, P, Q, R, S, T, V, W, Y, Z

Vowels

- Short Vowels
- Long Vowels
- Silent e

Sounds

- Blends: au, aw, oo, wh, sh, ch, th
- Blends: oi, oy, ou, ow
- Blends: fl, br, sk, sn, bl, sl, cr, cl
- Y Sounds Like e
- Y Sounds Like i

Affixes

- Suffixes -er, -est, -ly, -y, -ful, -less
- Prefixes dis-, re-, un-

Synonyms, Antonyms

- Synonyms
- Antonyms

Spelling

- Homophones
- Variant Spellings of ur, or, ar
- Wr = r Sound
- Kn = n Sound
- Gh and ph = f Sound
- Practice

Vocabulary

- Nouns
- Verbs
- Adjectives
- Colloquialisms



Chapter 3 - Studying

Organizing

- Alphabetizing
- Categorizing
- Classifying

Non-Fiction

- Title Page
- Titles / Subtitles
- Table of Contents
- Parts of a Book Summary
- Illustrations
- Maps

Dictionary

- Using the Dictionary
- Multiple Meanings of Words

Sequencing

- Following Directions
- Sequencing
- Qualities of a Good Listener
- Listening Study Skills

Chapter 4 - Reading

Story

- Setting
- Main Character
- Plot-Sequencing
- Predicting Outcomes
- Drawing Conclusions

Fiction

- Title Page
- Dedication Page
- About the Author Page
- Parts of a Book Review
- Create Your Own Title Page and Dedication Page

Paragraphs

- Identify Main Idea
- Identify Details
- Distinguish Between Main Idea and Details

Fantasy or Reality

- Fiction
- Fact
- Fiction / Fact Differences

Comprehension

- Same / Different
- Look at the Picture, Choose the Sentence
- Read the Paragraph, Answer the Questions
- Read the Paragraph, Identify Answers

Grade 2 Science

Chapter 1 - Earth

Sun, Moon, Planets, Stars

- Sun / Shadows
- Moon
- Stars
- Planets
- Synthesis

Weather

- Precipitation
- Temperature
- Wind
- Extremes
- Synthesis

Resources

- Energy / Stored / Defined
- Kinds of Energy
- Oil
- Gas
- Coal
- Electricity Generated
- Alternative Energy Sources
- Synthesis

Planet Earth

- Earth Overview
- Fresh Water
- Salt Water / Oceans
- Land / Rocks / Soil
- Land Forms
- Atmosphere
- Inside the Earth
- Synthesis

Chapter 2 - Life

Senses

- Touch
- Smell
- Sight
- What You See
- Hearing
- What You Hear
- Taste
- Synthesis

Basic Needs

- Food and Waste Removal
- Water / Air
- Shelter
- Body Requirements
- Care for Young
- Temperature Range
- Comparisons to Animals
- Synthesis

Plants

- Roots
- Stems
- Leaves
- Flowers
- Fruits
- Seeds
- Systems Overview
- Synthesis

Animals

- Food and Waste Removal
- Water / Air
- Shelter
- Body Requirements
- Care for Young
- Temperature Range
- Comparisons to Humans
- Synthesis



Chapter 3 - Physical

State of Matter

- Matter Defined
- Solids
- Liquids
- Gasses
- Synthesis

Magnetism

- Magnetism Defined
- Poles
- Pull
- Natural Magnets
- Law of Magnetic Attraction
- Magnetic Field
- Force of Magnets to Pass through Materials
- Materials Attracted to Magnets
- Shapes of Magnets
- Loss of Magnetism
- Synthesis

Sounds

- Overview of Sound
- Vibration
- Sound Travels through Matter
- Structure and Function of Ears
- Characteristics of Sound
- Synthesis

Friction

- Friction Defined
- Causes of Friction
- Friction Produces Heat
- Friction Makes It Difficult to Pass One Matter Across Another
- Reducing Friction
- Uses of Friction
- Harmful Effects of Friction
- Synthesis

Grade 3 Math

Chapter 1 - Numbers

Writing Numbers

- 2 Digits
- 3 Digits
- Change Words to Numbers
- Change Numbers to Words
- Applications

Place Value

- Identify Place Value
- Arrange Digits Correctly
- Identify Value of Each Digit
- What Is 1,000 More or Less Than...

Decimals

- Match Decimal to Illustration
- Match Illustration to Decimal
- Write it in Words
- Comparison of Decimals
- Comprehension of Decimals

Fractions

- What Fraction Is Shaded?
- What is the Fraction?
- Equivalent Fractions
- Which is More?
- Mixed Numbers

Chapter 2 - Calculation

Addition

- 2 Digit Addition
- Regrouping
- Adding Fractions with Like Denominators
- Adding Decimals
- Application of Fractions and Decimals

Subtraction

- Applications
- 2, 3, 4 Digit Subtraction
- Fraction Subtraction
- Decimal Subtraction
- More Applications
- Subtraction from Zeros

Multiplication

- Simple Multiplication
- Three Factor Multiplication
- Addition Relations
- Choose the Correct Product
- Long Multiplication

Division

- Relation to Multiplication
- Equation Division
- Set Up a Division Problem
- Long Division
- Applications



Chapter 3 - Measurement

Length

- Use Your Ruler (Customary)
- Use Your Ruler (Metric)
- Best Unit (Customary)
- Best Unit (Metric)

Money and Time

- Coin Word Problems
- Place Value
- Estimates
- Elapsed Time
- How Late?

Capacity and Volume

- Best Unit (Customary)
- Best Unit (Metric)
- Comparisons (Customary)
- Comparisons (Metric)
- How Many Boxes?

Temperature

- Compare Temperature to the Time of Year
- Read Temperature Scale
- Temperature in Celsius
- Applications

Area and Perimeter

- Perimeter of Shapes
- Design a Zoo / Which Shape Has a Given Perimeter?
- Beginning Area
- Area and Perimeter Problems

Chapter 4 - Patterns and Functions

Color and Shapes

- Color, Complete the Pattern
- Color, What's the Rule?
- Shape, Complete the Pattern
- Shape, What's the Rule?

Numbers

- Complete the Pattern
- What's the Rule? / Addition and Subtraction
- What's the Rule? / Multiplication and Division
- Applications with Age

Logic

- Blocks
- Who Am I?
- Shapes
- Mystery Keys

Patterns

- Post Office
- Common Numbers
- Number Triangles
- Grid Paths
- Ordinals

Chapter 5 - Geometry and Data Analysis

Coordinate Geometry

- Comparisons
- Writing
- Reading
- Move It!

Shapes

- Similar
- Congruent
- Life Shapes
- Hidden Shapes

Points and Lines

- How Many Segments?
- Right Angles
- Parallel and Perpendicular Lines
- Parallel and Perpendicular Lines in Shapes

Probability and Statistics

- Match the Graphs
- Read the Graphs
- Predictions
- Data Gathering
- Conclusions

Symmetry

- Shapes
- Letters
- Which Line?



Grade 3 English

Chapter 1 - Writing

Sentences

- Subjects
- Predicates
- Subject / Verb Agreement
- Complete Sentences
- Compound Sentences
- Interrogative Sentences
- Sentence Patterns
- Sentences with One Negative

Grammar

- Common Noun
- Proper Noun
- Plural Nouns - Regular
- Plural Nouns - Irregular
- Pronouns / Antecedents
- Verbs
- Adjectives
- Contractions

Editing

- Capitalization of Proper Nouns
- Capitalization of Addresses
- Punctuating Ends of Sentences
- Periods in Names, Initials, Abbreviations
- Periods in Abbreviations of Words
- Commas in a Letter
- Commas in a List
- Punctuation Review

Chapter 2 - Spelling

Structure

- Root Words
- Prefixes
- Suffixes -able, -ous, -teen, -ty
- Suffixes -less, -ful
- Word Endings -s, -es, -er, -ed, -ing
- Double Final Consonant CVC (consonant, vowel, consonant) Words
- Drop Silent e
- Syllabication

Sounds

- Consonant Blends and/or Digraphs at Beginning/End of Words
- Vowel Blends ai, ay, ee, ea, oa, oo, ow, ou, oi
- R-Controlled Vowel Patterns ar, er, ir, or, ur

Synonyms, Antonyms

- Synonyms
- Antonyms
- Synonyms vs. Antonyms

Spelling

- General Spelling Practice
- Homophones
- Gn = n Sound
- Eigh = ey Sound
- Mb and mn = m Sound
- Ph = f Sound
- Wr = r Sound

Vocabulary

- Nouns
- Verbs
- Adjectives
- Colloquialisms

Chapter 3 - Studying

References

- Table of Contents
- Glossary
- Encyclopedia
- Index
- Maps
- Charts
- Graphs
- Using the Library

Dictionary

- Alphabetizing
- Guide Words
- Entry Words
- Synonyms
- Accents / Syllabication
- Meaning
- Alphabetizing
- Practice

Sequencing

- Sequencing
- Time Order Word Clues

Chapter 4 - Reading

Story

- Setting
- Characterization
- Main Character
- Plot-Sequencing
- Predicting Outcomes
- Drawing Conclusions

Fiction

- Title Page
- Copyright Page
- About the Author Page
- Create Your Own Title Page or Copyright Page

Paragraphs

- Details
- Distinguish Between Main Idea and Details
- Identify Main Idea and Details
- Organizing a Paragraph
- Main Idea in a Topic Sentence

Fantasy or Reality

- Fantasy
- Reality

Non-Fiction

- Cookbooks
- How-to Books
- Science Books
- History Books
- Biographies and Autobiographies
- Identifying Types of Non-Fiction Titles
- Identifying Non-Fiction Titles



Grade 3 Science

Chapter 1 - Earth

Sun, Moon, Planets, Stars

- Sun / Star Properties
- Moon Properties
- Planet Properties
- Patterns of Change / Apparent Motion
- Patterns of Change / Moon
- Patterns of Change / Planets
- Systems / Solar, Galaxy, Universe
- Synthesis

Weather

- Precipitation
- Temperature
- Wind
- Extremes
- Synthesis

Conservation

- Definition and Uses
- Review Fossil Fuels
- Review Terms
- Review Electricity
- Alternative Power Sources
- Solar Power
- Wind Power
- Geothermal Power
- Nuclear Power
- Synthesis

Rocks & Soil

- Earth Overview
- Land Forms
- Types of Soil Defined
- Soil Erosion
- Rocks and Minerals
- Change
- Synthesis

Chapter 2 - Life

Skeleton and Muscle

- Skull
- Vertebrae / Spinal Column
- Rib Cage
- Pelvis
- Arms
- Legs
- Skeletal Systems
- How Skeletal System Relates to Other Body Systems

Habitats

- Butterfly / Meadow
- Frog / Water and Land
- Penguin / Arctic
- People
- Fish and Whale / Water
- Reptile / Desert
- Slug and Snail / Forest
- Wolf / Forest
- Synthesis

Plants

- Conditions for Growth
- Air
- Water
- Temperature
- Soil
- Nutrients
- Basic Composition of Seeds and Bulbs
- Protective Properties
- Methods of Seed Dispersal
- Germination
- Synthesis



Reptiles

- Definitions / Properties
- Identification
- Habitat
- Ecosystems
- Environment
- Place in Life Cycle
- Interdependence
- Comparisons to Other Animals
- Synthesis

Chapter 3 - Physical

Properties of Matter

- Matter Defined
- Solids
- Liquids
- Gasses
- Tools Used to Measure
- Observable Change
- Physical Change
- Synthesis

Basic Electricity

- Introduction to Electricity
- Simple Circuit
- Light Bulbs
- Cell Batteries
- Paths and Wires
- Conductors
- Nonconductors
- Synthesis

Liquids

- Liquids as Matter
- Liquids Compared to Solids and Gasses
- General Properties of Liquids
- Define Volume of Liquids
- Comparative Weight of Liquids
- Density
- Heating
- Cooling
- Synthesis

Machines

- Machines Defined
- How Forces are Used to Make Machines Work
- Various Force Sources
- Machine Types
- Lever
- Wheel and Axle
- Pulley
- Inclined Plane
- Wedge
- Screw
- Synthesis



Grade 4 Math

Chapter 1 - Numbers

Reading Whole Numbers

- Matching Written Numbers with Numerals
- Write the Written Form of the Number
- Match the Written Numbers with the Numeral
- Comparing Less Than and Greater Than
- Following Numbers

Fractions

- Comparing Visual with Numeric
- Writing Fractions in Words
- Comparing Fractions and Decimals
- Finding Equivalent Fractions
- Adding / Subtracting with Like Denominators
- Comparing Fractions with Greater Than and Less Than

Reading and Comparing Decimals

- Comparing Decimal Numbers to their Written Form
- Write Numerals from Words
- Comparing Greater Than and Less Than
- Which Is Largest?
- Which Is Smallest?
- Comparing Decimals / Equal Value

Place Value

- Place Value / Expanded Notation
- Place Value of Decimals
- Finding Correct Place Value of Whole Numbers
- Comparing Large Whole Numbers
- Arranging Decimals from Small to Large

Chapter 2 - Calculation

Addition

- Addition Facts
- Add Decimals
- Add Whole Numbers
- Add Decimal Numbers
- Adding Fractions with Unlike Denominators
- Adding Mixed Numerals

Subtraction

- Whole Number Subtraction
- Decimal Subtraction
- Subtracting Fractions with Unlike Denominators
- Making Change
- Magic Squares
- Subtracting Mixed Numerals

Multiplication

- Facts
- Word Problems with 10, 100, 1000
- Placement of Decimal Point
- Arrange Facts in Order
- Word Problems

Division

- Facts
- Long Division with 10, 100, 1000
- Decimal Division with 10, 100, 1000
- Word Problems

Chapter 3 - Measurement

Length

- Picking Equivalent Units
- Comparing Metric Units
- Estimating Customary Units
- Estimating Metric Units
- Estimating Word Problems

Capacity

- Equivalent Customary Capacity Measurements
- Comparing Metric Measurements
- Comparing Units
- Word Problems

Mass

- Standard Equivalent Weights
- Metric Equivalent Weights
- Standard / Metric Equivalent Weights
- Choose Best Estimate

Time and Temperature

- Adding and Subtracting Time
- Elapsed Time
- Equivalent Temperatures
- Reading Fahrenheit and Celsius

Perimeter and Area

- Perimeter of a Shape
- Perimeter of Shapes
- Word Problems
- Area of Squares and Rectangles
- Area Word Problems

Chapter 4 - Patterns and Functions

Patterns and Relationships

- Continue the Pattern
- Number Patterns
- Symmetry
- Axis of Symmetry
- Whole Numbers

Ratio

- Completing Proportions
- Comparing Proportions
- Tables of Proportions
- Completing Proportions / Money

Percent

- Comparing Percents and Decimals
- Equivalent Fractions and Decimal Percents
- Discounted Prices
- Recipes and Percents
- Sales Tax

Logic

- Venn Diagrams
- Shape Matching
- Post Office
- Common Numbers



Chapter 5 - Geometry and Data Analysis

Lines and Segments

- Segments
- Points
- Lines
- Rays
- Perpendicular Lines
- Parallel Lines
- Angles
- Circles

Figures on a Single Plane

- Shape Recognition
- Shape Classification
- Draw Diagonals

Statistics and Probability

- Probability Word Problems
- Bar Graphs
- Circle Graphs
- Line Graphs
- Points on a Grid

Volume

- Volume of a Solid
- Volume of a Rectangular Solid
- Cube Patterns
- Faces of Solids

Grade 4 English

Chapter 1 - Writing

Sentences

- Noun Subjects
- Pronoun Subjects
- Compound Subjects
- Predicates
- Complete Sentences
- Interrogative, Exclamatory, Imperative, Declarative Sentences
- Sentences with One Negative
- Compound Sentences

Grammar

- Common Nouns
- Proper Nouns
- Singular Nouns
- Regular Plural Nouns
- Irregular Plural Nouns
- Helping / Linking Verbs
- Present / Past Verbs
- Adjectives as Modifiers
- Singular / Plural Possessives
- Direct Objects

Editing

- Capitalization of Proper Nouns
- Capitalization of Addresses
- Punctuating Ends of Sentences
- Periods in Abbreviations
- Commas in a List
- Commas in a Letter

Writing Formats

- Friendly Letter
- Envelopes
- Postcards

Chapter 2 - Spelling

Structure

- Review Prefixes
- Review Suffixes
- Review Root Words
- Double Final Consonant CVC (consonant, vowel, consonant) Words + Endings
- Accented Vowel Ending Words + Endings
- Syllabication

Sounds

- Beginning ch, sl, cr, st, th, gh, wh, br, etc.
- Ending ch, sl, cr, st, th, gh, wh, br, etc.
- Sounds ai, ay, ee, ea, oa, oo, ow, ou, oi
- Sounds ear, eer, air

Synonyms, Antonyms

- Synonyms
- Antonyms

Endings

- Drop Final Silent e in Words Before Adding Endings
- Change y to i Before Adding -es or -ed
- Word Recognition



Chapter 3 - Studying

Research

- Main Topics
- Main Topics in an Outline
- Maps
- Charts
- Graphs

References

- Glossary
- Dictionary
- Encyclopedia
- Index
- Atlas
- Almanac

Dictionary

- Guide Words
- Pronunciation Key
- Accents / Syllabication
- Synonyms
- Identifying Multiple Meanings of Words Using Context Clues
- Definitions for Words with Multiple Meanings

Sequencing

- Time Order Word Clues
- Sequencing Events and Directions

Organizing

- Time Management
- Prioritizing Tasks
- Notebook Organizing
- Calendars

Chapter 4 - Reading

Story

- Setting
- Character Analysis
- Elements of a Plot
- Conflict
- Resolution

Paragraphs

- Main Idea
- Topic Sentence
- Key Words
- Details
- Difference Between Topic Sentence and Main Idea

Fact or Opinion

- Fact
- Opinion
- Generalizations

Non-Fiction

- How-to Books
- Cookbooks
- Science Books
- History Books
- Biographies and Autobiographies
- Art Books
- Sports Books
- Leisure Books
- Review of Non-Fiction Materials

Grade 4 Science

Chapter 1 - Earth

Planets in the Solar System

- Properties of Inner Planets
- Properties of Outer Planets
- Gravity
- Rotation on Axis
- Orbits
- Seasons
- Sun as Center of Our Solar System
- Synthesis

Weather

- Precipitation
- Temperature
- Wind
- Extremes
- Synthesis

Energy

- Definitions
- Uses of Energy
- Overview of Fossil Fuels
- Overview of Alternatives
- Individual Use
- Family Use
- Society Use
- Synthesis

Water

- Earth Overview
- Fresh Water
- Oceans
- Forms / Solid, Liquid, Gas
- Water Cycle
- Water as a Resource
- Synthesis

Chapter 2 - Life

Digestion

- Mouth
- Esophagus
- Larynx
- Throat
- Stomach
- Small Intestine
- Large Intestine
- Digestive System
- Nutrition / Choices
- Nutrition / Consequences
- Digestive System Related to Other Systems in the Body

Life Cycles

- Butterfly / Meadow
- Frog / Water and Land
- Penguin / Arctic
- People
- Fish / Water
- Whale / Water
- Reptile / Desert
- Synthesis

Diversity

- Mosses / Liverworts
- Ferns / Horsetails
- Fruit Plants
- Conifers
- Deciduous
- Wild and Garden Flowers
- Garden Plants
- Synthesis



Birds / Insects

- Definitions
- Properties
- Identification
- Habitat
- Ecosystems
- Environment
- Place in Life Cycle
- Interdependence
- Comparison to Other Animals
- Synthesis

Chapter 3 - Physical

Physical Matter

- Matter Defined
- Solids
- Liquids
- Gasses
- Tools Used
- Changes
- Synthesis

Electricity

- Introduction
- Static
- Current
- Simple / Parallel
- Simple Circuits
- Conductors
- Nonconductors
- Series Circuits
- Parallel Circuits
- House Wiring
- Synthesis

Gasses

- Gas as Matter
- General Properties
- Examples
- Air as a Mixture of Gasses
- Earth's Atmosphere
- Hot Air Rises
- Changes of State
- Synthesis

Heat / Light

- Heat Defined
- Mechanical Energy
- Chemical Energy
- Electrical Energy
- Radiant Energy
- Temperature
- How Heat Changes
- States of Matter
- Synthesis



Grade 5 Math

Chapter 1 - Numbers

Decimals

- Reading
- Writing
- Place Value
- Comparisons
- Ordering

Fractions

- Recognition
- Renaming
- Writing
- Comparisons
- Equivalents

Factors

- Prime and Composite Numbers
- Factors of a Number
- Common Factors
- Greatest Common Factor
- Least Common Factor

Reciprocals and Integers

- Simple Reciprocals
- More Than / Less Than 1
- Reciprocals of Mixed Numbers
- Identifying Integers on a Number Line
- Applications with Temperature

Chapter 2 - Calculation

Addition

- Decimals
- Fractions
- Adding Mixed Numbers
- Estimation

Subtraction

- Decimals
- Fractions
- Subtracting Mixed Numbers
- Estimation
- Order of Operation

Multiplication

- Multiplying Decimals
- Multiplying Fractions
- Multiplying Mixed Numbers
- Applications
- Estimation

Division

- Dividing Decimals
- Dividing Fractions
- Dividing Mixed Numbers
- Applications
- Estimation
- Order of Operations



Chapter 3 - Measurement

Length, Weight & Mass, Capacity

- Choose the Unit
- Conversion of Length
- Conversion of Weight
- Conversion of Capacity
- Which Would You Use...

Volume

- Compute Volume by Counting Boxes
- Compute Volume by Dimensions
- Match Volume with Correct Shape
- How Many Cubes Does it Take to Build It?
- Applications with Volume

Temperature and Time

- Fahrenheit
- Celsius
- Elapsed Time

Perimeter and Area

- Perimeter of Plane Figures
- Area of Rectangles and Squares
- Area of Triangles
- Area of Circles
- Circumference of Circles
- Surface Area
- Applications of Area and Perimeter

Chapter 4 - Patterns and Functions

Percents

- Recognition
- Equivalents
- What's Missing?
- Batting Averages
- At the Hoop

Exponents

- Comprehension
- Comparison of Exponents
- Powers of 10
- Ordering
- Exponent Order of Operations

Ratio and Proportion

- Matching
- Ratios to Fractions
- Fractions to Ratios
- Equal Ratios
- Map Skills
- Ratio Problems

Patterns

- Venn Diagrams
- Logical Classification
- Similar and Congruent Shapes
- Variables

Chapter 5 - Geometry and Data Analysis

Points and Lines

- Relationships Between Lines
- Coordinates
- What Kind of Shape Is It?
- Symmetry
- Congruent Segments

Polygons

- Matching Names to Attributes
- Congruent Polygons
- Similar Polygons

Angles

- Types
- Triangles / Missing Angle
- Quadrilaterals / Missing Angle
- Estimations

3-D Figures

- Naming
- Faces, Vertices, Edges
- Different Views

Probability and Statistics

- Predictions
- Possibilities
- Organizing Data
- Reading Graphs
- Averages



Grade 5 English

Chapter 1 - Writing

Sentences

- Subject / Verb Agreement
- Complete Sentences
- Interrogative, Exclamatory, Imperative, Declarative Sentences
- Compound Sentences
- Sentences with More than One Negative

Grammar

- Regular Plural Nouns
- Irregular Plural Nouns
- Helping / Linking Verbs
- Past / Present Verbs
- Adjectives as Modifiers
- Singular / Plural Possessives
- Direct Objects
- Adverbs
- Prepositions to, in, for, above, beyond, by, through

Editing

- Capitalization of Proper Nouns
- Capitalization of Addresses
- Periods in Names and Initials
- Periods in Abbreviations
- Commas in a Letter
- Colons

Writing Formats

- Friendly Letter
- Business Letter
- Envelopes
- Postcards
- Letter Format Review

Proof-Reading

- Indenting
- Punctuating
- Capitalization
- Misspellings
- Possessives

Chapter 2 - Spelling

Structure

- Review Prefixes
- Review Suffixes
- Review Root Words
- Double Final Consonant CVC (consonant, vowel, consonant) Words + Endings
- Accented Vowel Ending Words + Endings
- Syllabication
- Word Families

Synonyms, Antonyms

- Synonyms
- Antonyms

Misspellings

- Correct Spelling of Most Misspelled Words

Recognition

- Word Recognition of Most Often Used Words

Homophones

- Definition of Homophones
- Use of Homophones

Chapter 3 - Studying

Outlining

- Main Topics
- Main Topics in an Outline
- Sub-Topics
- Sub-Topics in an Outline

References

- Glossary
- Dictionary
- Encyclopedia
- Index
- Charts and Graphs
- Map Reading
- Atlas
- Almanac

Dictionary

- Guide Words
- Pronunciation Key
- Syllabication
- Meaning
- Synonyms
- Thesaurus
- Multiple Meanings
- Context Clues
- Definitions of Words with Multiple Meanings

Sequencing

- Time Order Word Clues
- Sequencing Events and Directions

Chapter 4 - Reading

Story

- Setting
- Character Analysis
- Elements of a Plot
- Conflict
- Resolution

Paragraphs

- Main Idea
- Details
- Identify Key Words
- Identify Topic Sentences
- Difference Between Topic Sentence and Main Idea

Fact or Opinion

- Fact
- Opinion
- Generalizations
- Propaganda Techniques

Compare and Contrast

- Comparisons
- Contrasts
- Venn Diagrams

Non-Fiction

- How-to Books
- Cookbooks
- Science Books
- History Books
- Biographies and Autobiographies
- Art Books
- Sports Books
- Leisure Books
- Review of Non-Fiction Materials



Grade 5 Science

Chapter 1 - Earth

Galaxies

- Review Objects in the Night Sky
- Solar System
- Stars
- Milky Way Galaxy
- Other Galaxies
- Synthesis

Climate

- Review Weather
- Weather and Climate Differences
- Factors Controlling Yearly Temperature
- Factors Controlling Yearly Rainfall
- Classification of Climates
- Global Climate Change Dilemma
- Synthesis

Pollution

- Different Kinds of Pollution
- Air Pollution
- Water Pollution
- Land Pollution
- Synthesis

Earth Systems

- Geosphere
- Biosphere
- Hydrosphere
- Atmosphere
- Interaction Between Water and Air
- Volcanoes
- Earthquakes
- Other Earth Shapers
- Synthesis

Chapter 2 - Life

Respiration and Circulation

- Respiration / Parts
- Oxygen / Co2 Exchange
- Circulation / Parts
- Blood
- Relation of Each to Exercise
- Relation to Other Systems

Ecosystems

- Forest
- Desert
- Fresh Water
- Salt Water
- Mountains
- City
- Grasslands / Meadows
- Synthesis

Interdependency

- Plants Defined
- Plant Cells
- Growth and Decay
- Energy Transfer
- Photosynthesis
- Cycles
- Interaction
- Habitat Dependency
- Structure and Function
- Synthesis

Mammals

- Definition
- Properties
- Identification
- Habitat
- Ecosystems
- Environment
- Place in Life Cycle
- Interdependence
- Comparison to Other Animals
- Synthesis



Chapter 3 - Physical

Chemical Matter

- Matter Defined
- Solids
- Liquids
- Gasses
- Tools Used
- Changes
- Synthesis

Electromagnetism

- Magnetism Reviewed
- Electricity Reviewed / Circuits
- Conductors
- Nonconductors
- Series / Parallel Circuits
- Electromagnets and How They are Made
- Electromagnets and How They are Used
- Synthesis

Light

- General Properties of Light
- Reflection
- Refraction
- Composition of Light
- Sources
- Synthesis

Energy Transformations

- Heat
- Light
- Chemical Energy
- Mechanical Energy
- Electrical Energy
- Nuclear Energy
- Energy Can Be Changed from One Form to Another
- Synthesis



PC Game Guides

NOTE: Not all of the games explained in this section are available in each *Sierra's School House* package. A standard game is available with every package. Additionally, a new set of games (most often, two games) will be displayed in the Games Gallery the first time your child opens any curriculum application (such as 3rd Grade Mathematics or 2nd Grade English). For every 900 points your child earns in the Learning Lab, each new game displayed will become 'active' for your child to play with and enjoy.

ADI'S CRAZY EIGHTS

Four Players: The object of *Adi's Crazy Eights* is to be the first player to play all of your cards. After the deal, the stack is placed on the table. You are dealt five cards at the beginning of the game. The top card of the stack is flipped over and becomes the discard pile.

Play begins with the player to the left of the dealer. With each turn, players try to play a card from their hand to the discard pile. Cards played to the discard pile must be of the same rank, or suit, or must be an eight.

If an eight is played, a suit is chosen by the player who played the eight. The next card played must be of that suit (unless it's an eight also).

Players who cannot play a card on their turn can take cards from the stack in order to make a play. Taking cards from the stack is unlimited. Cards may be taken from the stack without limitation.

SCORING: The winner of *Adi's Crazy Eights* is the first player to score 100 points. The winner of each hand receives the average score of the other hands. Eights count 50 points. Face cards count 10 points each. All other cards count their face value. When a hand ends in a draw, no score is awarded.

ADI'S CRIBBAGE

Two Players: The object of *Adi's Cribbage* is to move your pegs around the track and reach the finish line before your opponent does. As soon as one player reaches the finish line, all play stops and the game is over. Points are scored in a variety of ways, both during the play of the hand, and during the showing of the hand. Each player is dealt six cards.

After the deal, each player chooses two cards from the dealt hand and places them in the crib hand. The crib hand is a special hand that belongs to the dealer and only comes into play during the showing of the hands. The deck is placed near the dealer and one card from the deck is turned face up and placed on top of the deck. This card is the starter. If the starter is a jack, the dealer scores two points for "his heels." After the starter card is turned up, the play begins with the non-dealer.

Players, in turn, may play any card as long as the count does not exceed 31. Each card played adds to the count (aces as 1, face cards as 10). All other cards count their face value. If you cannot make a play because it would go over 31, you pass by saying "Go". When a Go is given, the other player continues to play cards in any order as long as the count remains 31 or less. When this player cannot play, the count begins again at zero with the player who said "Go" first. All cards played in the previous round of 31 are out of play.

When all eight cards have been played, the play ends and the showing of the cards begins. The non-dealer shows first, then the dealer shows, then the dealer shows the crib hand. In all three hands, the starter is included as if it were part of each hand.



SCORING: During the play, scoring consists of making the count 15 or 31, playing a card that makes a pair or a run, receiving a Go, playing the last card.

15 and 31: Two points are scored for making the count exactly 15 or 31!

PAIRS: Two points are scored for playing a card of the same rank as the previous card played. If the card is the third in a row of the same rank (pair royal), six points are scored. If fourth in a row (double royal), twelve points are scored.

RUNS: Sequences of cards that can be arranged by rank score one point per card in the sequence. Thus, if the last three cards played were 7,6,8 (of a suit), a run of 3 would be scored since the cards can be rearranged to form 6,7,8. During the play, there could be a run of up to seven cards.

GO: The player who is told Go scores 1 point but only when the count ends at less than 31.

LAST CARD: If the eighth card played does not make the count 31, the player that played the last card scores one point.

Scoring during the showing is as follows:

15: Each combination of two or more cards that total 15 scores two points.

PAIRS: Pairs score two points.

THREE OF A KIND (PAIR ROYAL): Scores six points.

FOUR OF A KIND (DOUBLE ROYAL): Scores twelve points.

RUNS: Each combination of cards that form a sequence of three or more cards scores one point per card.

FLUSHES: If the four cards in your hand are of the same suit, score four points. If the starter is also of the same suit, score five points instead. Four card flushes in the crib hand are not scored.

NOBS: If a jack in the hand is the same suit as the starter, score one point.

MATCH POINTS: Players score one match point for each game won unless the winning player won by more than 30 or 60 points. For winning the game by more than 30 points, two match points are scored. For winning the game by more than 60 points, four match points are scored. The first player to reach seven match points wins the *Adi's Cribbage* match.

ADI'S HEARTS

Four Players: The object of Adi's Hearts is to score fewer points than any other opponent by avoiding hearts and the Queen of Spades. Each player is dealt thirteen cards. After the deal, usually (depending on the passing option that is set) each player chooses three cards that they wish to exchange with another player.

The passing rule is as follows:

ALTERNATING PASSING: Passing alternates each hand as follows: left, right, across, and hold. Every fourth hand is a hold hand which means that no passing takes place.

After the passing of the three cards has taken place, the play begins. The play of the hand always begins as follows:

TWO OF CLUBS LEADS: The player with the two of clubs leads it and begins play.

Hearts is played in a series of thirteen tricks. The first card played to a trick determines the suit that must be followed by all other players, if able. Each player plays one card to the trick and the highest ranking card of the suit led wins the trick. The winner of a trick leads the next trick. Aces are high. Hearts may not be led until they have been "broken" (played onto a previous trick by a player who couldn't follow suit), or forced to play a heart due to having only hearts left.



SCORING: Each heart taken from a trick counts one point against the player who takes it. The Queen of Spades counts thirteen points against the player who takes it. However, if a player takes all hearts and the Queen of Spades in a given hand (called "shooting the moon"), all the other players score twenty-six points and the player who "shot the moon" scores zero. *Adi's Hearts* is played until any player has 100 points or more after a hand is completed, at which time the player with the least number of points is the winner.

ADI'S OLD MAID

The object of *Adi's Old Maid* is to avoid becoming the "old maid". There is one special card in the deck which is the old maid card. This special card is added to the deck, creating a 53 card deck. After all the cards are dealt, players must remove all pairs from their hands. After each player has done this, the play will begin with the player to the left of the dealer.

Each turn, the player whose turn it is must choose one card from the hand of the player on their right and then place that card into his own hand. If the card that was chosen creates a pair in the hand, the pair is removed from the hand. Whether or not the new card forms a pair, the next player now plays. This continues until all pairs have been removed and only the old maid card remains. Each hand of *Adi's Old Maid* has three winners and one old maid.

ADI'S SOLITAIRE

The object of *Adi's Solitaire* is to play as many cards as possible to the foundations. The foundations are four special piles on the left side of the screen. After the cards are dealt to the seven columns, the stack is placed on the table. Cards from the stack are flipped over one at a time and placed into a waste pile.

Cards may be moved around the columns from the waste pile if certain rules are followed. Build columns in descending order (K,Q,J,10,9, etc.) and at the same time in alternating colors (red, black, red, etc.). In order for cards in a column to be moved to another column, all face up cards must be moved as a single unit. The top card of the unit must be one rank lower and of the alternate color of the lowest card of the column that the unit is being moved to.

Cards from the waste pile are moved one at a time and may be moved to any column as long as the building rules are followed. Cards may never be played from a column to the waste pile. Empty columns may only be filled with kings. Cards may be moved to a foundation from the columns or the waste pile. Only completely uncovered cards may be moved to foundations. Build foundations in ascending order and of the same suit.

Once a card is played to a foundation, it may not be moved again. Play ends when there are no more useful moves left to be made.

SCORING: Each card played to a foundation scores one point.

BLACKOUT

NOTE: You may use the Help Index from the game's menu bar to learn more about playing and configuring *Blackout*.

Place the mouse cursor somewhere over a TARGET rectangle (a white square on the playing surface with a round target on it).

Press the left mouse button - this should turn the target rectangle red and make a "found" sound.

Repeat the above two steps until all target rectangles have been found.

If the non-target squares turn black before you find all the target rectangles, a "blackout" will occur, and the game will be over.

You can also click on "bonus" rectangles that have a "2 X" through a "5 X" message on them for extra points - these rectangles turn blue when clicked. Any time you click on any rectangle that is neither a target nor a bonus rectangle, you will hear a "missed" sound and the nine-rectangle area around where you clicked will be completely "blackened out." Your score may also be lowered as a penalty for the miss, depending on the game configuration.

You can use the "Pause" and "New" buttons at the lower left-hand corner to pause the game and/or start a new game. The game's status is always displayed in the status line along the bottom of the playing surface. Other options, like the playing level and speed, turning sound on or off, and many other game options, can be set using the choices from **Blackout's** menu bar. Be sure to read the on-line help before you change the game settings permanently.

BOW AND ARROW

Game Instructions: In the game **Bow and Arrow**, you are a regionally renowned archer from a time long past. Your goal is to overcome all obstacles placed before you by the evil warlord known as the Black Archer.

Bonus points are awarded when a sufficient number of targets have been hit during any round of play. Magic Feathers are awarded at the same time as bonus points. These feathers make you impervious to limited attacks. At least one arrow is awarded for each target. Each shot by the archer uses one arrow. Each time the archer is hit by an enemy, at least one magic feather will be removed. Arrows not used at a level are carried over to the next round. Note that only thirty arrows are shown on the Status display at any time. When less than thirty arrows are available, the arrow tokens will be visibly removed with each shot taken. Various amounts of points are awarded for each hit of a belligerent target. Typically, as the levels increase, higher scores are granted. Various amounts of points are subtracted when a friendly target is struck. To initiate each level of play, double click either mouse key or press any key on the keyboard.

A game will end when any one of the following criteria has been met:

- The Archer is out of arrows.
- The Archer is struck by an adversary without being in possession of a magic feather.
- The Player chooses menu option File->Stop or presses <F4>.

Moving the Archer and Shooting Arrows: Archer movement and arrow shooting are governed by specific mouse movements and button presses. Use Quick Help (menu option Help-> Quick Help) for quick reference of these operations.



Load arrow - Press right mouse button.

Draw bow - Press left mouse button.

Shoot arrow - Release left mouse button.

Walk arrow - Hold left mouse button down. Move mouse above archer's head to walk up the screen. Hold mouse below archer's feet to walk down the screen.

<Alt>+<F1> - Displays this Help file and pauses the current game, if in progress.

General Hints: A low pitched single beep generally means you did something wrong. At least, points will be subtracted. At the worst, you will not be able to continue the game.

- Read the story text for hidden clues.
- On levels with targets traveling vertically, call your shots. There is plenty of time. Nothing is attacking you.
- On levels where the targets are traveling toward you, stick to a single region of the screen and shoot only targets in your range.
- Sometimes the best way to survive is to saturate the screen with arrows. Shoot as quickly as you can.
- Save games often to limit the need for repeating levels.

LEVEL SPECIFIC HINTS:

BULLS EYE: Just keep trying. You really can hit it.

UNFRIENDLY SKIES: In this level you should try to help the dove get your message through to Khanin the Wizard. Do not shoot the dove. Save it!

DARK FOREST: This level requires the archer to destroy malicious trees who are continually throwing apples. If something has not been accomplished in a previous level, there is no way to kill the trees. Search back more than one level for the answer.

Solution to Level 9: As the story goes, in level 7, "... you decide to send a message to your friend Khanin the Wizard.. A passing dove agrees to deliver your message..." Later on in level 9, "...Hope the message got through to Khanin..." These are the clues to getting through the apple trees. In short, you must stop the vultures from catching the dove in level 7. This means ALL vultures must be stopped. If the message gets through, help will be readily available in the Dark Forest.

DON'T LET THE VULTURES GET THROUGH!

One final note: In level 9 at various resolutions, only part of the bottom tree is visible. You cannot shoot the apples from this tree but you must time your shots by dodging the apples and hitting the flame as it revolves to the front of the tree. Sometimes this may prove very difficult but the timing of on screen events assures that eventually the flame can be hit without being struck by an apple.

OUTPOST: It's tough to shoot the rat in this level. In fact, you can't get a clear shot. But arrows don't always have to take the shortest route. Go for the ricochet...

DRAGONS: No gaps in his armor. Think of the movies and aim for the soft, vulnerable parts.

DEMONS: No way to kill this one easily. There's only one way. Try disrupting his power surge with a well placed shot at the appropriate time.

IMPERIAL GUARDS: These ghastly mutations cannot be harmed when the power orb is in their possession. A well timed shot is required to hit the guards when the orb is out of their grasp.

THE DUEL: He doesn't run out of arrows. He pursues you across the screen. He is quick and agile... He can be defeated, honest.

CHECKERS

Checkers is played by two players with pieces in the form of disks. These pieces are called checkers or draughts. All these checkers are alike in form, but come in one of two colors, red or black. One player moves the black pieces, and the other moves the red.

All pieces stand and move solely on the black squares. Initially, all pieces are 'single men', but may become 'kings' as described below.

Black moves first, and thereafter the pieces move alternately. A player loses the game when he cannot move in turn. Usually, this is because all of his pieces have been captured, but this may also happen if all of his pieces are immobilized. Many games are drawn by agreement, when few pieces remain and neither player has an advantage sufficient to win.

NONCAPTURING MOVE: A single man may move only forward on the dark diagonal, one square at a time (when not capturing).

CAPTURING MOVE: The capturing move is a jump. If a red piece sits forward and adjacent to a black piece, and the black square behind the red piece in the same line is empty, the black piece may jump over the red piece into the empty square and remove the red piece from the board. If a piece makes a capture, and lands on a square from which it can make another capture, it continues jumping in the same turn. It may change direction during the jumps, but only forward if it is a single man.

If a player can make a capturing move, he **MUST** do so. He may not make a noncapturing move. If he has a choice between several captures in the same move, he has free choice.

CODE BREAKER

The object of the game is to solve a computer generated color code in less than sixteen tries.

The game board consists of sixteen rows of five peg holes each. In the center of the board is a column of seven colored pegs. The computer will randomly select five colored pegs and generate a secret pattern which you must try to guess. To make a guess, click on a colored peg, then click on an empty hole to fill it with that peg. Fill each hole with the peg of your choice and then click on the button marked Test. The computer will tell you how close your guess was to the true pattern by showing you a row of dots next to your guess. By clicking anywhere in a completed row, you can copy that row into your current guess in order to make changes. Each black dot indicates that you have a correctly colored peg in the right hole, while each white dot indicates that you have a colored peg placed in the wrong hole. You have sixteen tries to guess the computer's pattern, using the information gained by your previous guesses.



DRAXON ONE PINBALL

Nova 9 Super Jackpot: The object of Draxon is to vanquish that intergalactic tyrant Gir Draxon. In order to earn this playfield's Super Jackpot, you must Rid Nova 9 of Gir Draxon. This will require you to Turn on Sarah, Stay in Good Repair, Travel to Nine Planets, Make Crushed Ice, and Warp it Good.

Turn on S.A.R.A.H.: Place a ball in the Activate S.A.R.A.H. Trap Hold. Now hit the lettered targets S.A.R.A.H.. This scores 1,000,000 points and begins MULTIBALL play.

Stay in Good Repair: Put a ball in Sparky's Safety Zone Trap Hole. Scores 150,000 points and lights the Cosmic String ramp for three interplanetary journeys.

Travel to Nine Planets: Place a ball up the lit Cosmic String Ramp for an interplanetary journey. Scores 250,000 points. You must make nine interplanetary journeys up the ramp while lit thus requiring you to place three balls in the Sparky's Safety Zone Trap Hole.

Make Crushed Ice: Strike the Ice Crusher Target while lit. Each hit scores 100,000 points.

Warp It Good: Shoot a ball into the Warp Zone Cosmic Swirl. You may start to feel a bit dizzy, but just relax. You have won the Frequent Flier Super Jackpot 5,000,000 points.

GAME CONTROLS

PLUNGER: To shoot a ball into play, position the cursor over the plunger and hold down left mouse button until you wish to release the plunger. Or, hold down the down arrow key until you wish to shoot the ball.

FLIPPERS: (Shift) The left and right flippers are controlled by the left and right shift keys or the left and right mouse buttons.

GRUNCHING: (Control + Shift) Grunching towards the left or right is controlled by the left and right Ctrl + Shift keys.

DRAXON: LEVEL TWO

Lost In Space Super Jackpot: You must vanquish Gir Draxon to earn this playfield's Super Jackpot. This will require you to Remain in Flux, Entertain Pion-Quark, Wiggle Like a Worm, Mark the Spotted X, and Bi-Phasal Gir's Nasals.

Remain in Flux: Place a ball in the Galaxy Flux Hole. Try to remain calm. There is no need to adjust your screen. Those strange ball movements will end soon and, anyway, they just earned you 100,000 points.

Entertain Pion Quark: Place a ball in the Quark Control Trap Hole for 200,000 points. Shoot a ball into the Pion Trap Hole for another 200,000 points. This begins MULTIBALL play.

Wiggle Like a Worm: Put a ball in the Worm Hole. This scores 500,000 points.

Mark the Spotted X: Place a ball in the X Marks the Spot Lane three times while lit. This scores 1,000,000 points and what's this? Holy cow. Gir Draxon's head just broke through the play field's surface.

Bi-Phasal Gir's Nasals: Hit the Maximum Bi-Phasal Power Switch Target. Now place a ball in the Mass Loader Trap Hole. Play is suspended while the Modified Bi-Phasal Cannon is loaded. Time the movement of the Modified Bi-Phasal Cannon and fire at Gir's rather large nasal passages. (To fire cannon press shift key or left mouse button.) Two nasal shots at Maximum Bi-Phasal Power will vanquish Gir Draxon and earn you admiration among friends and family for winning Draxon pinball.



GAME CONTROLS

PLUNGER: To shoot a ball into play, position the cursor over the plunger and hold down left mouse button until you wish to release the plunger. Or, hold down the down arrow key until you wish to shoot the ball.

FLIPPERS: (Shift) The left and right flippers are controlled by the left and right shift keys or the left and right mouse buttons.

GRUNCHING: (Control + Shift) Grunching towards the left or right is controlled by the left and right Ctrl + Shift keys.

ECOQUEST: THE SEARCH FOR CETUS

Set out on a challenging undersea odyssey as you discover the delicate and miraculous balance of nature. As you unravel this perilous sub-aquatic quest, you'll learn about the important environmental issues facing each of us today. You'll also have the adventure of your life.

Join an enchanting cast of animated undersea characters as you search for Cetus, the great whale king. Only you can save a mysterious underwater city. Along the way, you'll explore the sunken ruins of ancient civilizations and rescue sea creatures who are hurt or poisoned by pollution.

Join young Adam and Delphineus, the dolphin, as they brave the terror of toxic waste, oil spills, deadly driftnets, and other environmental hazards.

Based on scientifically accurate information, *EcoQuest* shows the importance of protecting the environment and how each individual can make a difference.

ICONS AND CURSORS: At the top of the screen is an icon bar containing several icons that can be selected to execute the command choices available to you. To open the icon bar, press (ESC) or move the cursor all the way to the top of your screen. Some icons will have a menu of choices. Use the (Tab) key or mouse to move between choices within an icon menu.

WALK ICON: Choose WALK when you want to move the character from place to place on the screen. A walking character will move until it encounters an obstacle in its path, then stop.

WALK CURSOR (MOUSE MODE ONLY): When you choose WALK, the cursor will change to a walking figure. Place the feet of the figure at the place where you want to move the character and click the mouse button. If possible, the character will move to that spot. PLEASE NOTE: In Keyboard mode, the character's destination will be assumed to be the edge of the screen in the direction of movement, and will walk off the screen if not stopped. There will not be a special cursor onscreen.

SWIM ICON: The SWIM icon replaces the WALK icon when you are in the water. Choose it when you want to move the character from place to place.

SWIM CURSOR: When you choose SWIM, the cursor will change to a swimming figure. Place the feet of the figure at the place you want to move the character and click the mouse button. If possible, the character will move to that spot.

LOOK ICON: Choose LOOK when you want to have the character look at something onscreen.

LOOK CURSOR: When you choose LOOK, the cursor will change to an eye. Place the eye at the desired place on the screen and press (ENTER). If there is something to be seen at this place, a message will be displayed.

ACTION ICON: Choose ACTION when you want the character to perform an action on an object. (Example: getting a drink from a pond, opening a door, etc.)



ACTION CURSOR: When you choose ACTION, the cursor will change to a hand. Place the hand at the desired place on the screen and press (ENTER), click the mouse button. The necessary action for this screen position will be performed.

TALK ICON: Choose TALK when you want to initiate a conversation between game characters.

TALK CURSOR: When you choose TALK, the cursor will change to a talking head. Position the mouth on the person (or thing) and click the mouse button or press (ENTER). If conversation is possible, the character will talk, or a conversation will begin.

INVENTORY ICON: Choose INVENTORY when you want to see and select from the items you are currently carrying.

The Controls Icon: This icon allows four game variables to be adjusted.

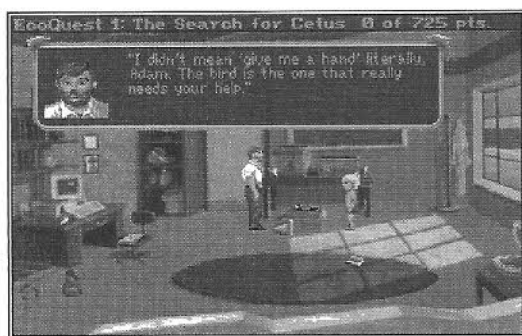
SPEED-Adjusts the speed of the game animation.

VOLUME-Adjusts the sound volume.

TEXT/SPEECH CONTROL-Allows selection between displayed text and spoken text. If the button is marked as TEXT, clicking on it will change to text mode. If the button is marked as SPEECH, clicking on it will restore speech mode.

GAME DETAIL-Adjusts the amount of non-essential animation in the game. If your game is running too slowly, you may want to adjust the Game Detail to lessen the amount of non-essential animation.

SAVE, RESTORE & QUIT -These functions are also accessed via the Controls Icon.



The Information Icon: Choose INFORMATION when you need to be reminded what the various icons do in the game. The cursor will change to a question mark. Pass the question mark over the other icons in the icon bar to see what they do.

Object Cursors: Each item in your inventory has a special OBJECT cursor associated with it. These can be used to perform game actions with your inventory items. Follow these steps:

1. You can choose the INVENTORY icon from the icon bar, or press the (Tab) key.
2. Move the ARROW cursor to the INVENTORY item you want to use, and press (ENTER), or click the mouse button. The cursor will change to look like the item you have selected.
3. Choose the OK icon. You will exit the inventory screen to the game.

4. Move the OBJECT cursor to the place onscreen where you want to use the inventory item and press (ENTER), or click the mouse button.

Using the Icon Bar in the Inventory Screen

- To use the icons in the inventory screen, choose an icon from the icon bar, then position its cursor on the inventory item, press (ENTER), or click the mouse button.
- Choose the LOOK icon and use the LOOK cursor to see a description of an item in the inventory screen.
- Choose the ACTION icon and use the ACTION cursor to use an inventory item to take action on another inventory item.

Pausing the Game: If you wish to pause the game, select the CONTROLS icon from the icon bar. The control panel states the game is paused. The game will pause until you select PLAY to resume play.

GOLD HUNT

Game Objective: In *Gold Hunt*, you are in search of a treasure hidden underground. You must try to find the treasure before you run out of energy and in the least number of tries possible.

Game Instructions: Use the mouse to position the "X" in one of the squares, or you may use the arrow keys on the keyboard. Press the left mouse button or the space bar to dig a hole. If where you dug is not where the gold is buried, the computer will let you know how many steps you are away from the gold. One step is equal to one square and you may step horizontally, vertically, or diagonally. By digging where you have dug, you can find out how far away you were during that point of the game.

Game Options: There are three levels of play. The size of the steps determine what level you are playing - level 1 is easiest, while level 3 is hardest. The default is level 2. You may change the energy level by choosing "Energy..." in the "Game" menu. The default is 20.

LOST SECRET OF THE RAINFOREST

Lost Secret of the Rainforest is a trek through lush jungles, mysterious caverns, and ancient ruins atop craggy, mist-covered peaks. You will be required to defeat the real-life dangers threatening the rainforests of South America.

As you explore this exotic ecosystem, you will encounter endangered animal species, rare flora, and remote native cultures. Your challenge is to prevent their extinction by poachers and other outlaws who would destroy the environment to satisfy their greed. If you're successful, you will learn the amazing truth that lies behind the enigmatic face of the rainforest.

GAME COMMANDS: All of the game commands are located in an icon bar which is normally hidden at the top of the screen. To access the icon bar, move the cursor to the top of the screen. You can also access the icon bar by pressing ESC on the keyboard.

To choose an action, click on the icon that represents that action. Then click on the area on the screen where you want to perform that action. For example, to look at an object, access the icon bar and click on the LOOK icon. Then click the LOOK cursor on the object you want to LOOK at. The following paragraphs describe each of the available actions in more detail.



WALK ICON: Choose **Walk** when you want to move your character from place to place on-screen.

WALK CURSOR: When you choose **Walk**, the cursor will change to a WALK icon that varies from game to game. Place the feet of the figure at the place where you want to move your character to and click. Your character will move to that spot, avoiding any obstacles in its path.

LOOK ICON: Choose **Look** when you want to have your character look at something on-screen.

LOOK CURSOR: When you choose **Look**, the cursor will change to an eye. Place the eye at the desired place on the screen and click. If there is something to be seen there, a message will be displayed.

ACTION ICON: Choose **Action** when you want your character to manipulate an object.

ACTION CURSOR: When you choose **Action**, the cursor will change to a hand. Place the hand at the desired place on-screen and click. The appropriate action will be performed.

TALK ICON: Choose **Talk** when you want to initiate a conversation between game characters.

TALK CURSOR: When you choose **Talk**, the cursor will change to a Talk Icon. Position the Talk cursor on the person (or thing) you want to speak to, and click. If conversation is possible, your character will talk, or a conversation will begin.

ITEM ICON: The **Item** icon shows the last inventory item you selected. Choose **Item** when you want to use this item.

INVENTORY ICON: Choose **Inventory** when you want to see and select from the items you are currently carrying. Within the Inventory screen are several options: **?**, **Look**, **Action** and **OK**. Choose **?** and click on any menu icon to learn the function of the icon. Choose **Look** and click on any inventory item to get a description of that item. To use that item on another item, the item must first be selected with the **Arrow** icon and then clicked on the second item. (Example: putting jewels into a pouch). To select an item for use, click on the **Arrow** icon then click on the desired inventory item. (See Inventory Object Cursors, below.) Choose **OK** to leave the Inventory screen and return to the game.

INVENTORY OBJECT CURSORS: Each item in your inventory has a special object cursor associated with it. Each of these cursors looks like the **Object** it represents. OBJECT cursors can be used to perform game actions with your inventory items.

To use an OBJECT cursor in the game, choose the **Inventory** icon from the icon bar, or press the TAB key. Move the arrow cursor to the inventory item you want to use, and click. The cursor will change to look like the item you have selected. Choose the **OK** icon. You will exit the inventory screen to the game. Move the **OBJECT** cursor to the place on-screen where you want to use the inventory item and click.

Control Panel Icon: When you choose the CONTROL PANEL icon, several options will be displayed: **SAVE**, **RESTORE**, **RESTART**, **QUIT**, **HELP**, **ABOUT**, **PLAY**, **TEXT**, **VOLUME**, **SPEED**, **DETAIL**.

Choose **SAVE** when you want to save your game. Choose **RESTORE** to restore a previously saved game. Choose **RESTART** to begin the game again. Choose **QUIT** to stop playing.

The **SPEED** lever adjusts the speed of your character's on-screen movement. Place the cursor on the lever and hold down the left mouse button as you move the lever up (faster) or down (slower).

The **VOLUME** lever adjusts the sound volume of the game music. Place the cursor on the lever and hold down the left mouse button as you move the lever up (louder) or down (softer).

The **DETAIL** lever adjusts the amount of non-essential animation in the game; if your computer system is running

the game too slowly, you may want to adjust the game detail to eliminate non-essential animation. Place the cursor on the lever and hold down the left mouse button as you move the lever up (more detail) or down (less detail).

The **TEXT** lever, available only in selected games, adjusts the amount of time text messages will remain on your screen. Place the cursor on the lever and hold down the left mouse button as you move the lever up (less reading time) or down (more reading time).

HELP ICON: Choose ? and click on any menu icon to learn the function of the icon.

Pausing Your Game: If you wish to pause the game, select the **CONTROL PANEL** icon from the icon bar. The game will pause until you select **PLAY** to resume play. Alternatively, just bringing up the icon bar will also cause the game to pause.

HERE'S HOW THE ECORDER WORKS

To Record Something: Click on the inventory icon on the icon bar to open inventory. Now you see a little picture of the Ecorder. Click the Look Icon on inventory objects if you don't know which one. Click the arrow icon on the Ecorder. Now the Ecorder appears in your inventory display window icon. The cursor changes to the Ecorder. Click on the inventory exit icon to close the inventory window. Run the Ecorder cursor all over the screen. When you locate an object that can be recorded, the cursor changes color. If you lose your cursor by accident, just click on the inventory display window in the icon bar to get it back again. When the Ecorder cursor is large, click the left mouse button. Now you get a message that the Ecorder is recording. You get 1 point each time you collect data.

To Review Your Stored Information: Click on the inventory icon on the icon bar to open inventory. Click the inventory hand icon on the Ecorder. Now you see the Ecorder on the screen. Click the Ecorder on the screen. Click the question mark button on the Ecorder. This gives you simple directions about using the Ecorder. Click the power button to turn on the Ecorder. Now you have a menu of choices.

Enter Your Name: Select this category by clicking on the directional dial, then click on the enter button. Now you see a window where you can enter your name by typing on your keyboard. Press return on your keyboard when you are done. Now the Ecorder will remember your name whenever you enter it. If you want to leave Adam's name there - that's fine, too.

Rainforest Facts: Select this category by clicking on the directional dial, then click on the enter button. This is your database. Click on the enter button. Now you have a list of categories. Click on the directional dial to move up and down the categories. Click on the enter button to select a category. Now you have a submenu that lists all the items you are looking for. Notice that the items are ghosted until you record them in the game. Click on the directional dial to move up and down the menu. Click on the enter button to go to a highlighted item, that is, one you have recorded. Now, if you have recorded the item in the game by using the Ecorder, you see a small picture of the item and a description. Some of these are clues for game puzzles! Check it out! Click on the talk button to hear the Ecorder pronounce the item's name. Click on the escape button or click on the enter button to return to the previous menu. Return all the way to the introductory menu.

Print My Fact Sheet: Select this category by clicking on the directional dial, then click on the enter button. Now the Ecorder will send the entire database to a printer. You will get all the items, whether you have recorded them or not. Enjoy!



Test Yourself: Select this category by clicking on the directional dial, then click on the enter button. You can test yourself at any time. The test will give you ten items to identify. Type in the number of the appropriate choice to identify the icon. Note that these are the same icons that you collect, so you can learn to recognize them. We'll give you lots of points if you get all the items right! You can take the test as much as you want! Become a rainforest expert! Move the cursor to the side of the Ecorder. The cursor changes to "exit".

TIPS FOR ADVENTURERS

- Look everywhere. Thoroughly explore your surroundings. Open doors and drawers.
- Explore each area of the game very carefully, and DRAW A MAP as you progress through the game. Make a note of each area you visit, and include information about objects found there and dangerous areas nearby. If you miss an area, you may miss an important clue!
- Get objects you think you will need. You can see an inventory of items on hand by choosing the Inventory icon at any time.
- Use the items you have picked up to solve problems in the game. Different approaches to a puzzle may bring about a different outcome.
- Be careful, and remain alert at all times — disaster may strike in the most unlikely places!
- Save your game often, especially when you are about to try something new or potentially dangerous. This way, if the worst should happen, you won't have to start over again from the beginning. Save games at different points, so you will always be able to return to a desired point in the game.
- Don't get discouraged. Spend some time exploring another area, and come back later. Every problem in the game has at least one solution, and some have more than one.
- Bring along some help. You may find it helpful (and fun) to play the game with a friend.

PAULIE PYTHON

The object of the game is to guide **Paulie Python** through multiple scrolling screens eating all the Mice without crashing into the walls or himself. The screen is completed when all the mice are eaten. Avoid the bouncing balls. Paulie can be killed if he gets hit in the head by a ball. The bonus for a given screen is the amount of time left on the bonus timer multiplied by the level. You can either use the cursor keys on the keyboard or the mouse to control Paulie's movements. Each mouse Paulie eats adds to his length making it more difficult to avoid crashing into himself.

The sound may be toggled on and off using the F3 key or the Sound option on the Game menu. The game may be paused by using the F4 key or the Pause option on the Game menu.

STARTING A NEW GAME: To start a new game, select the New option from the Game menu or press the F2 key.

SCHEME OF THINGS: This setting allows you to decide what will happen after **Paulie Python** clears the screen of Mice. The Grand Tour option progresses through the screens one after another in the order they appear in the screen set. The Surprise Me option randomly chooses the next screen from all screens in the current screen set.



The My Way option prompts you to choose the next screen each time a screen is cleared.

ATTITUDE (speed): The speed of the game action is set by Paulie's attitude. He can move like a Garter Snake (slowest) all the way up to the Black Mamba (fastest). When set to Mouse, you can use either the mouse or the cursor keys. When the mouse is set to Full Screen you do not have to keep the cursor in the main window, but the function keys and menus are disabled. When the mouse is set to Client Area, the function keys and menus are accessible, but Paulie's direction can only be changed when the cursor is in the client area of the main Paulie window.

PEG SOLITAIRE

The object of the game is to remove pegs from the playing board one at a time until only one is left. When the game begins, all but one of the holes in the playing board have been filled with pegs. A peg can be removed by jumping over it with an adjacent peg, if there is an empty space on the other side for the jumping peg to fit into. To move, click on the peg next to the one you want to remove, and then click on the hole on the other side of the target peg. Your selected peg will move into the hole, and the target peg will disappear. If you change your mind after selecting a peg, you can deselect it by clicking on a different peg before you click on the hole. When there are no more pegs which can be jumped, the game ends.

Game Menu: By using the game menu, you can select either of two versions of the game, and set the style of peg you want for your game.

GAME 1: The playing board for this version is triangular. For each new game, the computer randomly selects which position will have the starting hole. Jumps may be made horizontally or diagonally.

GAME 2: The playing board for this version is a square cross. The starting hole is always in the center. Jumps may be made vertically or horizontally, but not diagonally.

PEG: You will be presented with a selection of peg styles. Click on the one you want to use, then click on OK.

SOUND FX: This selection toggles the game's sound effects on and off.

EXIT: Choose this option to end your game.

Graphics Menu: Use this menu to select the graphics for your game. Ordinary causes your game to appear as a standard playing board, with your choice of peg styles. The Frogs option displays the game as jumping frogs on a lily pad pond, and the peg button is disabled.

SCORING: The object of the game is to leave as few pegs on the board as possible. For game 1, three pegs left is an average score, two remaining is pretty good, and a single peg left is perfect. For game 2, the harder version, four or five pegs left is average, two or three remaining is pretty good, and a single peg left is perfect.

PEPPER'S ADVENTURES IN TIME!

Colonial Craziness! Pepper has a BIG problem. Her Uncle Fred, the family's mad scientist, has scrambled colonial America into one big hysterical, historical omelet! It looks like the British are going to win the war this time... unless YOU can set the facts straight!

Ben Franklin, Baby! If you want some help with this sticky situation, you'll have to talk to Ben Franklin, but be careful! Uncle Fred's confused him, too! You'll have to help Ben out, or the world will never know about his accomplishments and inventions. Once you get to know Ben, you'll be amazed by his wisdom... and cracked up by his sense of humor!



Cosmic Canines! This is all too much for one kid to handle, so Pepper brought some backup—her mischievous mutt, Lockjaw. You'll actually get to play as a dog! Go on, do all the doggie things you've always wanted to try. Sniff out mysteries. Dig holes. Chew things up. BITE PEOPLE!

Truth Icon: Both Pepper and Lockjaw have a TRUTH icon in their icon bars.

When you click this icon on almost any object on the screen, it will let you know if the object is historically accurate (whether it belongs in this time period), or if it is an anachronism (it doesn't belong). The answer will always be TRUE or FALSE, followed by an explanation. It is important for children to use this icon, as many answers to the History Quiz will be revealed here.

Quiz Icon: Both Pepper and Lockjaw have a Quiz icon in their icon bars. When you click on this icon, a list of facts to look for will appear. These are the facts you will need to discover to prepare for the History Quiz at the end of the act. After the History Quiz facts, there will always be a list of the player's major goals for the next act. If you forget what you're looking for at any point in the act, you can check the facts by using the Quiz icon.

Talk Menu: When you talk to some of the characters in *Pepper's Adventures in Time!*, you will have the ability to use a Talk Menu to ask them about certain subjects. Every talk menu has four pictures, each one representing someone you can talk about. Three of the pictures are always the same. They represent Ben Franklin, the Pughs, and Lockjaw. The fourth picture represents the character to whom you are talking.

To use the Talk Menu, just click the microphone on the character with whom you want to talk. If the character has a Talk Menu available at that time, the Menu will appear. Now click on the picture you want to talk about. The Talk Menu will vanish, and you will converse with the character about that subject. When you're done with the conversation, you can bring up the Talk Menu again by clicking your microphone on the character. When you've exhausted a Talk Menu with a particular character, it won't appear again until the next act. You will be able to click on that particular character in the next act to find out new information.

You can exit a Talk Menu at any time by clicking anywhere outside the Menu. If you don't want to ask about every subject on a Talk Menu, you don't have to. You can just walk away after the Talk Menu vanishes. We suggest that you talk to each character as much as you can. You just might find out something really useful!

In *Pepper's Adventures in Time!*, children get the opportunity to play as two different characters: The young adventurer Pepper, and her faithful dog, When playing Lockjaw, a different icon bar will appear. The icons on this bar have specific meanings.

The WALK icon causes Lockjaw to move about the screen. Just click the icon where you want him to go.

The NOSE icon allows Lockjaw to sniff people and things. Click the NOSE icon on anything you want to smell.

The EYE icon causes Lockjaw to look at things. Click this icon on anything you want to look at.

The TEETH icon can be used for chewing, eating, drinking, or biting. You never know exactly how this icon will react until you click it on something.



A Schematic for Ben Franklin's Famous Kit/Key Experiment (In which he proved that lightning from the Heavens is actually Electrical Fire.) Objects used in this Experiment:

- A Fine Silk Kite
- A Brass Key
- A Silken String
- A Complete Leyden Jar

The Answers to the Postal Clerk's Questions About Ben

NOTE: These questions may come in any order!

- Was Ben born on Milk Street in Boston? TRUE
- Answer true or false, kid: Was Ben the oldest child in his family? FALSE
- Ben really loved the soap-making business, right, kid? FALSE
- Silence Dogood is Ben's cousin. True or false, kiddo? FALSE
- Ben ran away to Philadelphia when he was seventeen, right? TRUE
- The Leather Apron Club was a bunch of guys who worked with leather, right, kiddo? FALSE
- Answer true or false, lad: The King of France once sent Ben a letter of congratulations for his electricity experiments. TRUE
- Is Ben planning on going to England this year, kid? TRUE
- Ben met Deborah when he was just a boy in Boston. True or false, lad? FALSE

The Leyden Jar: The Leyden jar consists of a large glass bottle, wrapped inside and out with tinfoil. It may be filled with water or iron shot, and should be stoppered with a rubber cork pierced through by an iron rod. The Leyden jar is capable of storing powerful charges of electrical fire, and should be handled with extreme care. The noted American scientist Ben Franklin once electrocuted and cooked a turkey with such a jar, but not before he nearly electrocuted himself.

PLANET PINBALL THREE

Reformat Day Super Jackpot: Reformat The Future to earn this playfield's Super Jackpot. This will require you to Enter the Super Computer Room, Light the Lasers, Flush the Droid, Reformat the Hard Drive, and Reformat Life.

Enter the Super Computer Room: To open the gate to the Super Computer Room, hit the X. 6 and 9 Targets. Shoot a ball up the Super Computer Room Entrance Ramp. Receive 100,000 points.

Light the Lasers: Hit the Light the Lasers Target, then hit the Laser Kickers. More bang for your ball, more bang for your buck. Each hit scores 100,000 points.

Flush the Droid: Hit the Security Droid Target, then place a ball into the Droid Toilet Flush Icon Hole. What happened to the ball? Better watch carefully. This scores 1,000,000 points.

Reformat the Hard Drive: Strike the R-E-F-O-R-M-A-T targets, and then hit the illuminated Enter Target. Eee gads, what's that Hard Drive doing on the playfield? This scores 1,000,000 points.



Reformat Life: Hit the Disk Target, then place a ball into the Roger Wileo Jr. Trap Hole. Hit the Sequel Police. Next, place the ball into the Sludge Vohaul Trap Hole. Now hit the illuminated Enter Target again. You have won Planet Pinball and the Super Jackpot. 10,000,000 points!

GAME CONTROLS

PLUNGER: To shoot a ball into play, position the cursor over the plunger and hold down left mouse button until you wish to release the plunger. Or, hold down the down arrow key until you wish to shoot the ball.

FLIPPERS: (Shift) The left and right flippers are controlled by the left and right shift keys or the left and right mouse buttons.

GRUNCHING: (Control + Shift) Grunching towards the left or right is controlled by the left and right Ctrl + Shift keys.

PLANET XENON PINBALL

In the Beginning: Save planet Xenon from a desolate future in which the evil Sludge Vohaul rules.

In order to earn this playfield's Super Jackpot, you must find a Different Future. To do this, Shoot the Sewer, Light Up Lloyd, Jam the Cyborg, Put an End to Astro Chicken, Remember Your Dog Kit, and Hijack the Time Pod from the Sequel Police.

Shoot the Sewer: Place a ball up the Shoot the Sewer Ramp. This scores 100,000 points.

Light Up Lloyd: Shoot a ball into the Professor Lloyd Holographic Trap Hole while lit. This scores 1,000,000 points.

Jam the Cyborg: Hit the Cyborg Head Target. He'll laugh at you and since he thinks it's so funny, hit him again. Each hit scores 100,000 points.

Put an End to Astro Chicken: Place a ball in the Astro Chicken Trap Hole. Astro Chicken will come marching onto the playfield and spin around. Watch the ball kick out. Watch Astro Chicken go splat! Hit the String Drop Target while lit. This scores 100,000 points.

Remember Your Dog Kit: Hit the Buckazoids. Slime and Pocket Pal Drop targets. Complete your Dog Kit and score 200,000 points.

Hijack the Time Pod from the Sequel Police: After completing all of the above tasks and putting a ball through each of the RIP lanes a Sequel Police figure will appear. Steamroll him with a ball and then shoot a ball into the Time Pod. This scores the Super Jackpot 5,000,000 points!

GAME CONTROLS

PLUNGER: To shoot a ball into play, position the cursor over the plunger and hold down left mouse button until you wish to release the plunger. Or, hold down the down arrow key until you wish to shoot the ball.

FLIPPERS: (Shift) The left and right flippers are controlled by the left and right shift keys or the left and right mouse buttons.

GRUNCHING: (Control + Shift) Grunching towards the left or right is controlled by the left and right Ctrl + Shift keys.

PUZZLE GAME

The object of the game is to restore the picture to its original form by unscrambling the square puzzle pieces. The Slide Puzzle takes a picture, divides it up into a square grid, and then scrambles the pieces, leaving a blank space



in the upper left-hand corner of the grid. Clicking on the puzzle piece next to the blank square causes that piece to slide into the open space. Move the pieces around one by one until you have rebuilt the original picture.

Game Options: 99 You can use this menu to set the difficulty level of the slide puzzle by choosing the size of the square grid. The larger the grid, the more difficult the puzzle.

Easy: 3x3 grid

Medium 4x4 grid

Hard: 5x5 grid

X-tra Hard: 6x6 grid

Select **Sound FX** to toggle the game sounds on and off, and choose **Exit** to end your game.

Picture Menus: With this menu, you can either choose one of the available pictures to be used for your puzzle, or tell the computer to pick one for you. If you tell it to choose a specific picture, the game will use that selection every time you play. If you select the **Random** option, the computer will choose a different picture each time the game is restarted. Select **Show** at any time to see what your completed picture should look like.

QUEST FOR DAVENTRY PINBALL

QUEST FOR DAVENTRY Super Jackpot: Rescue the Kingdom of Daventry to earn the Quest for Daventry Super Jackpot. This will require you to follow the Flight of Wisdom, See Crispin's Counsel, Raise Walls of Stone, Meet with Mushka, Weep Upon A Willow, Stock Up in Serenia, Ingratiate Queen Icebella, and Flipper the Flipper to Mordack's Island.

Follow the Flight of Wisdom: Place a ball in the Cedric Tree Trap Hole. Follow Cedric the owl as he flies about the playfield by directing a ball to the object above which he is perched. This will award 100,000 points.

See Crispin's Counsel: Put a ball in the Crispin Hut Trap Hole. This scores 100,000 points.

Raise Walls of Stone: Hit the Open and Sesame Targets. Now shoot a ball into the Endless Desert Temple Stone Wall Trap. But hurry, the wall is coming down. This scores 500,000 points.

Meet with Mushka: Strike the Gypsy Man Drop Target, now place a ball into the Madame Mushka Wagon Trap Hole. This scores 50,000 points.

Weep Upon A Willow: Place a ball into the Witch's Tree Hovel Trap Hole. The passage is narrow and if you miss, well, let's not talk about it. Precise shooting scores 500,000 points.

Stock Up in Serenia: Hit the four Town of Serenia Drop Targets. This scores 400,000 points.

Ingratiate Queen Icebella: Shoot the ball into the Queen Icebella Mountain Castle Trap Hole. Oh no, it's that hideous, smelly creature, Yeti. Hey, he just grabbed your ball!! Shoot a ball through the Yeti Cave Opening. Just look at that Yeti bounce. This scores 1,000,000 points and begins MULTIBALL play.

Flipper the Flipper to Mordack's Island: Put a ball into the Old Man's Waterfront Hut Trap Hole. Watch as Mordack Island rises out of the water and a Mermaid splashes over to its base to form a ramp with her flippers. Shoot a ball up the Mermaid's Flipper Ramp and into the Mordack Island Trap Hole. Game over. Super Jackpot. Whoopy do!



GAME CONTROLS

PLUNGER: To shoot a ball into play, position the cursor over the plunger and hold down left mouse button until you wish to release the plunger. Or, hold down the down arrow key until you wish to shoot the ball.

FLIPPERS: (Shift) The left and right flippers are controlled by the left and right shift keys or the left and right mouse buttons.

GRUNCHING: (Control + Shift) Grunching towards the left or right is controlled by the left and right Ctrl + Shift keys.

SLAM!

Slam! is an "air hockey" game. You play against a computer opponent with adjustable quickness and aggressiveness.

To start playing, click anywhere on the table with the left mouse button. This "grabs" your paddle, and the cursor disappears. To let go of the paddle and restore the cursor, click the left mouse button again.

The game ends when one side gets 11 points. If you would like to quit the current game and start a new one, select NEW under the GAME menu.

If you don't like the colors, you can change them. At any time, while the cursor is visible (i.e. you are not "holding" your paddle), position the cursor over the part of the table whose color you want to change, and click the right mouse button. The standard Windows "color picker" dialog box will appear, allowing you to choose the color you desire. All changes you make will be automatically saved for future sessions.

OPPONENT: This menu selection brings up a dialog box containing the current quickness and aggressiveness settings of the computer opponent. Each can be set to a number between 1 and 100 inclusive.

A lower aggressiveness setting causes the computer opponent to protect its goal more and "go after" the puck less. Setting the aggressiveness higher causes the computer to abandon the defense of its goal more often to go on the attack.

The quickness setting determines how fast the computer can react to things happening on the table. A low number will make the computer sluggish and more apt to miss the puck.

VIEW ANGLE: This menu selection brings up a dialog box in which you can set the "table angle". When set to 0, you are looking at the table edge-on (NOT a good idea!).

COLORS: This brings up a dialog box that allows you to set the table, puck, and paddle colors to their default values.

SOUND: Select this menu item to enable or disable sound effects. When sound is enabled, a check mark will appear next to SOUND in the OPTIONS menu.

SMASHER & SUPER SMASHER

The object of **Smasher & Super Smasher** is to crush bricks by hitting them with the ball. The ball bounces off of your paddle at the bottom of the screen. You can control your paddle with either your mouse or the arrow buttons on your keyboard.

SCORING: You earn points by smashing bricks. Some of the bricks have special characteristics, when you hit them, they cause your ball to do special things. The special bricks are worth more points. When the ball is blinking it means there are no more special bricks.

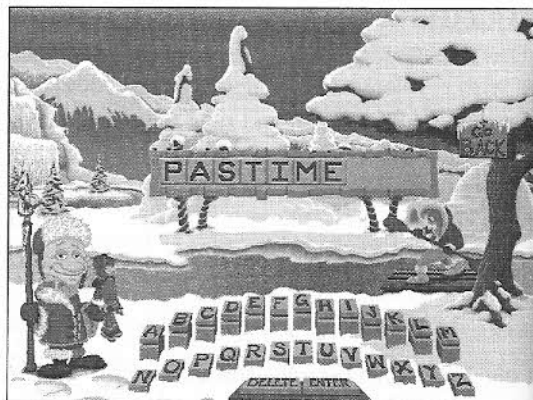
Exit: To quit **Smasher & Super Smasher** just click on the escape key.



SPELLING BLIZZARD

Your mission is to step on lettered stones to spell tricky spelling words. If you run into a tricky spelling word, don't worry. Yobi will give you a MagicSpell, a special memory trick (called a mnemonic) at the bottom of the screen.

After correctly spelling the tricky Spelling Puzzle, you will be challenged to a Spell Down along the river. For each correctly spelled word, you move upstream. For each incorrectly spelled word, you stand still. After you correctly spell several words, you will face another tricky spelling word. You continue your journey, meeting one tricky spelling word followed by a variety of Spell Down words until you reach the end of the river.



The Map: After loading, the first screen of Spelling Blizzard is a map. Yobi uses this map to keep track of your progress. As you play the game, a red line appears showing the course you have traveled upstream on the Mighty Spelling River. Each time you correctly spell a tricky spelling word, Yobi will place a red dot on the map, extending your red progress line on the map. Click on a red dot to hear a previous tricky word you spelled.

Total Distance to Travel: Yobi keeps track of the top ten explorers (players). To see how many miles you and others have traveled, look at the number to the right of your name. The total traveling distance to complete the game is 100 miles.

Types of puzzles: There are two types of spelling puzzles.

1. **Spelling Puzzles:** Here you learn tricky spelling words. You always start Spelling Blizzard with a Spelling Puzzle.
2. **Spell Down:** Here you practice general spelling words. You get to the Spell Down after correctly solving a Spelling Puzzle.

Collecting Lettered Stones and Other Objects: To collect a lettered stone or an object, step on it. (You can move around using your arrows keys or your mouse.) The letter of the stone will appear above Yobi's head on the reader board. You can always ask Yobi for information by clicking on the object while you're in Pause mode.

How to Use the Ice Block as a Bridge and How to Throw a Fish: To use the ice block as a bridge, simply slide the ice block into the water at the narrow area of the river. To throw a fish to feed an animal, press the space bar. If you are too close it will go over the animal's head.

Spelling Puzzle Obstacles: You will face many obstacles while solving the Spelling Puzzles. If you need a clue about an obstacle, pause the game and ask Yobi.

Moose: The moose has big antlers that can hurt you. He paces back and forth and does not turn. The moose is harmless unless you get too close to it.

Walrus: The walrus is constantly swimming. If you get too close it will come out of the water and annoy you, but it can't hurt you. It can be bribed when it is out of the water. Once he is satisfied by a fish he cannot move.

Polar Bear: The polar bear guards its den. However, if you get too close, it will charge. The polar bear can be bribed with a fish.



Wolf: Like the polar bears, wolves guard their dens, but once you've captured the wolf's attention, it will align with you and mimic your every movement. You cannot bribe a wolf.

Killer Whale: A killer whale moves continually in the water. You can stand on the shore and throw a fish at it as a bribe. You must time this just right or your bribe will be wasted. At this point you can get on its back and ride it across the river. The bribe wears off soon, so get to the other side of the river quickly.

Penguin: Penguins are always moving at top speed in the water and on land. A penguin may be annoying, but it presents no hazard to you. The penguin will only block your way (you can bribe it to move) and will steal your fish if it gets there first.

Abominable Snowman: The abominable snowman will stalk you anytime you get close to it. It will annoy you by throwing snowballs at you. If you are hit by one of his snowballs, it will daze you and make you stumble.

Fire Trickster: The fire trickster will throw fire balls at you if you get too close. It is easily recognized by its bright yellow and orange colors. The fire trickster can throw balls a short distance in any direction. The fire trickster can be neutralized with a fire potion (orange bottle) or blocked by an animal, a block of ice, or a big snowball.

Wind Trickster: The wind trickster watches your every move and blows you across the playing field in either a north, south, east, or west direction. Try to use the wind's strength to move you where you want to go. The wind trickster can be neutralized with a wind potion (light blue bottle) or blocked by an animal, a stone wall, a block of ice, or a big snow ball.

Dart Trickster: The dart trickster also follows your every move and blows darts at you across the playing field... even over trees. Time your movements to avoid the darts. The dart trickster can be neutralized with a dart potion (brown bottle) or blocked by an animal, a block of ice, or a big snow ball.

Ice: While on ice, you will continue in the direction you are moving until an object stops you. Only after you have stopped can you change your direction. Use your sliding movement on the ice to collect letters. Animals will not go on the ice. You can push a big snowball onto the ice and it will continue to travel in the direction you pushed it until an object stops it.

Glacial Crevasse: No animal will go into a glacial crevasse... and neither should you. Everything disappears when it gets too close to the edge.

Stone Wall: Stone walls are helpful obstacles against tricksters, but that's all they do.

Water's Edge: You can't go any farther than the water's edge unless you get on the raft, ride a killer whale, use a block of ice, or a big snowball as a bridge.

Snow: The snow is a protected area for you. No animal will go onto the ice until you push the animal onto it. However, you are not protected from tricksters on the snow.

Land: The land is a very pale yellow color. You and all land animals can walk across it.

Fir Trees: The trees are obstacles for you, but they do not block any of the trickster antics.

Letter Tablets: All of the letters of the tricky spelling words (plus a few extras) are found on letter tablets scattered on the playing field.

Mackerel: A mackerel (fish) is used to bribe animals. A mackerel will cause a changed behavior in an animal for approximately 10 seconds. After 10 seconds, the effects of the fish wear off, but you can always use another



mackerel. For example, three mackerel will result in changed animal behavior for 30 seconds.

Time Stop: The little red bottle represents a time stopping potion. When you walk over the time stop potion, everything ceases to move except you. Move quickly because it wears off within 10 seconds!

Ice Block: The ice block is useful when crossing water. If you push the block of ice it will keep going until it hits the opposite bank. You can hop on the block of ice and use it to navigate on the river. Once it is in motion you can't change the direction until it stops.

Big Snowballs: When you push the snowballs on land, they serve as excellent barriers to tricksters. When you push them into the water, they serve well as stepping stones, but will melt after a very short time.

Walk Over Water: When you step on this blue bottle, you will be able to walk across the river. Move quickly for it wears off within 10 seconds.

Fire Ball Protection: When you step on this little orange bottle, you are protected from the Fire Trickster's balls of fire for about 10 seconds.

Dart Protection: When you step on this little brown bottle, you are protected from the Dart Trickster's red darts for about 10 seconds.

Wind Protection: When you step on this little light blue bottle, you are protected from the Wind Trickster for about 10 seconds.

Trinket: Trinkets appear in every tenth tricky spelling word puzzle. When you acquire one, it will appear in color on the Map. Collecting them is not required to complete your journey.

Asking Yobi for Help: To ask Yobi for help, click on the Pause sign at his feet. The game will stop. Yobi will then give you a clue about whatever you click on. Click on Play to continue the game.

How to Spell a Word: In the Spelling Puzzle game, your goal is to step on the lettered stones in the right order to correctly spell a tricky spelling word. The lettered stones will appear on the reader board above Yobi's head as they are collected.

Incorrect Spelling: If you step on the lettered stones in the wrong order, incorrectly spelling the word, the screen will fade to black. When the screen reappears, Yobi will ask you to spell the word again.

Correct Spelling: When you step on each lettered stone in the right order, you will have correctly spelled a tricky spelling word. Congratulate yourself and watch Wali (you) paddle up the Mighty Spelling River for your next challenge... the Spell Down.

Repeating a Tricky Spelling Word: Each time you click on Yobi he will repeat the tricky spelling word.

Milestone Map Dots: For a tricky spelling word to appear on the Map, you must complete both the Spelling Puzzle game and the Spell Down.

Restarting the Game: If you feel you have made a mistake while playing a tricky spelling word puzzle, click on the Restart lever on top of Yobi's hut.

Quitting the Game: To quit Spelling Blizzard, click on the Map sign hanging above Yobi's head. Once you are at the Map screen, click on the Quit stone.



WORD SEARCH

The object of the game is to locate all of the listed words, which are hidden somewhere in the letter grid. Search the letter grid until you believe you have located one of the hidden words. They may be hidden in a straight line anywhere in the grid, horizontally, vertically, diagonally, forward, or backward. Click on each letter of the word until you have the highlighted letter to unmark it. When all of the letters in the word have been correctly identified, the found word will be marked off the list. Continue until you have located all of the hidden words.

Game Options

GAME: Use this menu to **Restart** your game, toggle the sound effects on and off with Sound FX, or Exit from *Word Search*.

CATEGORIES: Use this menu to select one of the ten categories. There are thirty words in each category; sixteen of them will be randomly selected for each game of Word Search.



Mac Game Guides

NOTE: Not all of the games explained in this section are available in each *Sierra's School House* package. A standard game is available with every package. Additionally, a new set of games (most often, two games) will be displayed in the Games Gallery the first time your child opens any curriculum application (such as *Sierra's School House* grade 3 Math or grade 2 English). For every 900 points your child earns in the Learning Lab, each new game displayed will become 'active' for your child to play with and enjoy.

3D Brick Bash

This game is similar to the classic game of Break-Out, where you use a paddle to hit a ball against a wall of bricks, destroying the bricks. The main difference is that in 3-D Brick Bash the playing area is 3-Dimensional.

Objective: Keep the ball from hitting the floor by bouncing it off your paddle. Also direct the ball somewhat by hitting it with different areas of your paddle. Hitting it close to the edges makes it travel at a greater angle, while hitting it dead center makes it travel straight up and down.

Bonus Points: Bonus points are received for finishing levels quickly and not losing any balls on a level. Every 3 levels an extra ball is awarded.

Special Bonus Points: From time to time, targets decorated with a letter appear on the back wall. If you can manage to hit one with a ball, you get a special bonus depending on the letter.

(N) - Skips to next level, awarding full bonus points

(X) - Awards an extra ball

(B) - Bonus points are added to your score

(S) - Ball turns into destructible rubber for 20 floor bounces. This means the ball bounces safely off the floor, and very quickly too. This can destroy many bricks.

(C) - Ball is controlled by the paddle for 10 paddle bounces and still bounces up and down, trying to stay over the paddle. By moving the paddle carefully you can get rid of many bricks, especially the hard ones in the corners.

Tricks: It is possible to use the mouse button to slow down and speed up the ball. Clicking the mouse just before the ball hits the paddle gives it an extra push, while clicking the button, and releasing it just before the ball hits slows the ball down. If your click or release is not close enough to the moment the ball hits, there will be little or no effect.

Special Commands

Start On Level: Allows you to start a practice game at any level you reached in a previous non-practice game. Starting a game using this command will not earn a high score.



Clear High Scores: After asking you if you are sure, this command will clear out the high scores. It also erases the record of the highest level you reached in those games.

Kinder, Gentler Speeds: Makes the ball speed up less during games. This is good for practice, making the game more relaxing, or allowing younger children to play.

Hints

- The ball speeds up after hitting the paddle a certain number of times. Getting the ball to hit bricks from above allows you to kill more bricks without hitting it with your paddle as often. This is also the way to get the most out of controlling the ball after you hit the (C) target. The longer the ball stays up, the less you have to use your paddle.
- The bonus targets are often quite difficult to hit. If you are not in a good position when the target appears it may not be worth your while to attempt hitting it.
- It is useful to slow down the ball sometimes by releasing the mouse just before it hits your paddle. Some levels are almost impossible to finish without slowing the ball down.

3-D Paddle Bash

Game Play: Service of the ball alternates between you and the computer. The player who reaches 11 points first, wins. To accelerate the ball, click the mouse button immediately before the ball hits the paddle. To slow down the ball, click, then release the mouse button as soon as you see the ball coming towards you.

Skill Levels: You can choose from five different skills levels ranging from Basic Opponent to Mean Opponent by clicking on the Opponent Menu. You can also customize an opponent by clicking on Customize Opponent in the File Menu.

The Castle of Dr. Brain

In Dr. Brain's castle, you'll solve many puzzles. Some require planning ahead, others require the ability to recognize patterns, still others depend on using logic, and all of them take persistence. To access the control panel, move your cursor to the top of the screen.

The Dr. Brain Icon Bar: At the top of the game screen is an icon bar. Each icon represents an activity you can perform in the game. The icons in **Dr. Brain** from left to right are:

Look: Looks like an eye. Choose Look for a description of something you see on screen.

Do: Looks like a hand. Choose Do to make something occur on screen.

Item: Looks like a picture frame. If you are using an item, that item will be shown in the frame. If not, the screen will be blank.

Inventory: Looks like a book bag. Choose Inventory to see what items you have picked up, or to use one of those items.



Controls: Looks like a slider bar. Choose Controls to change the volume or difficulty level of the game, or to save, restore or quit your game.

Go Back: Looks like an arrow pointing back the way you came. Choose Go Back to leave the puzzle or room you are in now and go back to the room you came from.

Help: Looks like a question mark. When you choose Help you will be able to get information by moving the question mark cursor on the other icons in the icon bar.

Dr. Brain: Click on Dr. Brain to get a description of the room you are in.

Hint Coins: You will begin the game with one hint coin, and earn more as you solve the puzzles. If you get stuck trying to solve a puzzle, click on the coin slot in the puzzle window to buy help. In some puzzles a hint coin will buy a hint about solving the puzzle. If a coin buys a hint, you can click on the coin slot to see the hint again without spending more hint coins. The more hint coins you have left over at the end of the game, the higher your score will be.

The Puzzle Interface: Each puzzle comes up onscreen in a puzzle box. Each puzzle box has three buttons:

Coin Slot: Clicking on the Coin Slot button gets you help with the puzzle if you have a hint coin to buy that help.

Exit: If you are unable to complete the puzzle or want to quit the game or do something else in Dr. Brain's castle, clicking on Exit will allow you to leave the puzzle and come back to it later.

Question Mark: Clicking on the Question Mark tells you about the puzzle – what you need to do, how to use the controls, and what kind of help your hint coins will buy.

Checkers

Checkers is a two player game with red pieces and black pieces. The objective is to capture all the opponent's pieces by jumping over them (capturing them). All pieces stand and move solely on the black squares. The player with the black pieces gets to go first. A player loses the game when he cannot move in turn. Usually, this is because all of his pieces have been captured, but this may also happen if all of his pieces are stuck in place.

Noncapturing Move: A piece may move only forward on the dark diagonal, one square at a time.

Capturing Move: A capturing move is a jump. For example, if a red piece is diagonal from a black piece and the square behind the red piece in the same diagonal line is empty, the black piece may jump over the red piece into the empty square and remove the red piece from the board. If a piece makes a capture, and lands on a square from which it can make another capture, it continues jumping in the same turn. It may change direction during the jumps, but only forward. If a player can make a capturing move, he must do so.

Advancing: Initially, all pieces are "single men" and may only move forward. When a piece reaches the opponent's side, it becomes a "king" and may move forward and backward diagonally at will, even when capturing.



Concentrate

Click on any square to see a hidden picture. Click on a second square. If the pictures match, they will stay. If they don't match, they will go away. Remember the location of the pictures. Keep on clicking on the squares until all matches have been made and all pictures are showing. The time it took you to win will be displayed.

Desert Trek!

The objective of **Desert Trek!** is to travel 1,000 kilometers across the great Gobi Desert. Your journey will be a difficult one, though, as many dangers stand in your way: hungry cannibals who are relentlessly chasing you, the threat of death by thirst, hunger, fatigue, wild Berbers hidden in the sands who wish to kidnap you, dangerous paths in the desert sands, sandstorms, and thieves traveling in caravans. Do not despair, since there are things to help you out on your journey: oases, friendly caravans, abandoned campsites where you might find a stash of gold, and trading posts where you can purchase supplies and useful items.

There are 4 turns to a day, which is broken up into morning, midday, evening, and night. Traveling at a normal pace or fast pace, resting, approaching, or avoiding use up a turn. Eating, drinking, using an elixir, or using the binoculars do not use up a turn.

Game Status and Supplies

Thirst: Your thirst increases by at least one for each turn. If your thirst increases beyond the maximum, you die. Drinking eliminates thirst. Your thirst increases more during the middle of the day, when the sun beats down on you, and your thirst increases more per turn, on average, at higher skill levels.

Hunger: Your hunger increases by at least one for every turn you take. If your hunger increases beyond the maximum, you perish. Eating eliminates your hunger. Note that your hunger increases more per turn on the higher skill levels, but your hunger increases at a constant rate independent of the time of day.

Fatigue: This measures how tired your camel is. Be careful not to run your camel to death (you can't cross the desert on foot). Resting will give your camel a break. Your camel becomes more fatigued when traveling at a fast pace than a normal pace and is more fatigued per turn at higher skill levels.

Health: This measures how healthy your camel is. The less healthy your camel, the less your camel can travel per turn. Having your camel drink an elixir will restore some, if not all of your camel's health. Also, approaching an oasis will restore some of your camel's health. Needless to say, don't let your camel's health reach zero, or you'll be finished too. Your camel can become injured during normal travel (higher probability at a fast pace) if you hit a dangerous path and don't avoid it or successfully navigate it. If you are chased by thieves your camel may suffer.

Food: Every time you eat, your food supplies diminish a little. Be careful not to run out of food. You can find food at an oasis, purchase it at a trading post, or, if you're lucky, get some from a friendly caravan. Eating will decrease your hunger, but not as much at higher skill levels.

Water: Every time you drink, you use up some of your water. Running out of water is not advised as you won't last long without it. You can find water at the same places you find food. Drinking will decrease your thirst, but not as much at higher skill levels.



Elixirs: Elixirs restore your camel's health, but be frugal. You can buy more elixirs at trading posts. Giving your camel an elixir increases your camel's health, but not as much at higher skill levels.

Gold: Gold, which can be found at abandoned campsites, is used to purchase supplies at trading posts. You may also find gold useful in bribing the guard if you get kidnapped.

Compass: If you have a compass, a compass symbol will appear to the right of the Save button (just below the view of the desert). Look at the arrow on the compass to see which direction you are going. Compasses are exceedingly useful during sandstorms.

Distance Traveled: You need to travel 1,000 kilometers to win the game. A graphical "thermometer" displays how far you've traveled, as well as how far the cannibals have traveled.

Cannibal's Distance: Keep your distance from the cannibals, as they will gladly make a meal of you if they can catch up to you.

Journal: The journal contains a description of your travels across the desert. All events are recorded here, so you may review your adventure at any time.

Desert Events and Locations

Cannibals: The cannibals are constantly chasing you, traveling every turn (when you eat or drink, they can travel a couple of kilometers even though you don't use up a turn), even during sandstorms. The cannibals never need to rest, so stay well ahead of them. If they catch up to you, you've had it.

Wild Berbers: You may be captured by Wild Berbers during your journey. They will keep you in a jail cell. Fortunately, your local embassy won't let you rot there, but they may take a couple of turns to negotiate your freedom (meanwhile, the cannibals will gain on you). You can wait to be released or try to escape. If you fail to escape, you could be killed, or at the very least, set back by negotiations. While waiting, your thirst, hunger, and camel fatigue will decrease somewhat – the Berbers will feed you a little. You can bribe the guard if you have enough gold. If you do bribe the guard, the guard will be generous enough to feed you – your thirst, hunger, and fatigue will go to their minimums.

Sandstorms: During a sandstorm, you can't see where you're going and you may inadvertently travel in the wrong direction. If you have a compass, you'll be able to tell which direction you're traveling in. In either case, you will not be able to travel far in a sandstorm.

Dangerous Path: From time to time, the path ahead will become dangerous. You might be able to negotiate the dangerous path. Then again, you might not, injuring your camel. Avoiding the dangerous path is safest, but doing so may set you back.

Caravans: If you see a caravan in the distance, you can approach, avoid, or ignore it (by just going on your merry way). Caravans can be friendly or unfriendly. Friendly caravans, if approached, may give you food and water, allow you to travel with them, or both. Unfriendly caravans will chase you (backwards), steal supplies, or both. Ignoring an unfriendly caravan doesn't mean they'll ignore you. Trying to avoid an unfriendly caravan may set you back a little, but it certainly beats an encounter with them.



Oasis: At periodic intervals, you may spot an oasis in the distance. Approaching an oasis will allow you to rest and replenish your supplies. All your stats (thirst, food, fatigue) will go to their minimums, your camel's health will increase, and your food and water will be replenished.

Abandoned Campsite: You will occasionally spot an abandoned campsite in the distance. They were probably abandoned quickly, as raiders strike fast and without mercy. This means that there's a chance valuable gold has been left behind.

Trading Post: Trading posts sell food, water, elixirs, compasses, and binoculars. Bring your gold, because prices aren't cheap. In the trading post, click on the item you want to purchase (prices are shown to the right of the item), or use the Buy menu. You can eat, drink, and give your camel elixirs while in the trading post, so you can max out your stats and supplies if you have enough money. When you have finished shopping, click on the "Exit" button.

Commands:

Normal Pace: Traveling at a normal pace, you won't get as far, but your camel gets less fatigued and there's a much smaller chance that your camel will get injured. The distance you travel depends on the time of day – you can travel most at night, least during the middle of the day. Remember, the healthier your camel, the farther you can travel per turn.

Fast Pace: If you really need to distance yourself from those pesky cannibals, you'll need to use this command. On average, you can travel twice as far (compared to normal pace), but your camel will become fatigued much faster, and there's a higher probability your camel will get injured (and any injury will be more severe).

Approach: Use this command to approach things you see in the distance, like trading posts, caravans, abandoned campsites, and oases. Be careful not to approach an unfriendly caravan!

Avoid: If you want to avoid something in the distance, like an unfriendly caravan or a dangerous path, use this command. Avoiding an object may set you back a little (but it doesn't always, you may still travel forward while avoiding an object), and can certainly be better than encountering an unfriendly caravan or a dangerous path.

Use Binoculars (Buy Binoculars): If you have binoculars, you can use them to scan an empty horizon for objects (caravans, abandoned campsites, trading posts, oases) or to try to ascertain the characteristics of an object you see in the distance (Is that caravan friendly? Is that trading post open?). Binoculars become useless over time, as the desert sands aren't kind. Binoculars are useful if you are trying to find a source of supplies when you are low, or if you want to figure out if what you see is real, friendly, or useful. You can only use binoculars once a turn (except when you spot something on an empty horizon, in which case you can use them once more on the same turn). Clicking on the Binoculars icon will buy binoculars at a trading post.

Buy Compass: Clicking on this icon will buy a compass at a trading post. You will know you have a compass if the compass symbol appears between the Cannibal's Distance and Gold Amount icons. Compasses are very useful during sandstorms.

Eat (Buy Food): If you are very hungry, eat some food. Your hunger will decrease, and the amount will depend on what skill level you're playing. At a trading post, clicking on this icon will buy food. Eating does not use up a turn, but the cannibals will get a bit closer to you while you eat.

Drink (Buy Water): If you are very thirsty, drink some water. Your thirst will decrease (the amount will depend on what skill level you're playing). At a trading post, clicking on this icon will buy water. Drinking does not use up a turn, but the cannibals will get a bit closer to you while you drink.

Rest: Resting will reduce your camel's fatigue, but uses a turn. The amount of rest your camel gets is determined by the time of day (more rest at night, less during the day) and the skill level you're playing. Objects you see in the distance stay right where they are when you rest since you don't go anywhere. Resting during a sandstorm doesn't give your camel much rest.

Elixir (Buy Elixir): If your camel is injured, give your camel an elixir to improve your camel's health. The amount will depend on what skill level you're playing. At a trading post, clicking on this icon will buy an elixir. Administering an elixir does not use up a turn, but the cannibals will get a bit closer to you while you do so.

The following commands are used when you are being held captive by Wild Berbers:

Pay Bribe: If you have the gold and need to escape quickly, you can bribe the guard. Bribing the guard has the added benefit of reducing your hunger, thirst, and camel fatigue to zero.

Wait: If you have time to wait (the cannibals are far behind), or don't have the gold to pay the bribe, you can wait for your embassy to negotiate your release. Your hunger, thirst, and camel fatigue will decrease a little as you wait, since the Wild Berbers do feed you a bit.

Escape: If you do not have the gold to bribe the guard, and you don't have time to sit and wait for your embassy to negotiate your release (the cannibals are close behind and just about to catch up to you), you can try escaping the prison. One of three things may happen: you may escape, you may be killed during the escape, or you may fail and remain in jail. A failed escape attempt will prevent the embassy negotiations from progressing that turn.

The Even More Incredible Machine

This game gives you many wacky puzzles to solve. Use various parts to make a contraption that somehow or another solves the goal stated on screen.

Puzzles: Any new puzzle will begin with its title across the top of the control panel, and the goal directly under the puzzle preview. Click on the puzzle preview area where the cursor says "Play".

Puzzle Colors:

Green text = Solved puzzles; White text = Current puzzle; Red text = Puzzles not yet solved

To Start a Machine: When playing a puzzle, click on the runner in the starting blocks at the top of the parts bin.

To Stop a Machine: Click anywhere at anytime.

To Return to the Control Panel: Click on the bent arrow in the upper left corner of the icon showing a runner at the starting blocks.

To Move Parts: Click on a part in the parts bin and drag it where you want it on the play field.



Modify Parts: Once a part is placed onto the play field, move the cursor over the object to reveal the handles. Click on the handles to modify parts as described below:

Flip Parts: Click on the red arrows at the bottom left or right of a selected part to flip the part.

Size Parts: Click on the blue arrows and drag to adjust the part.

Recycle Parts: Click on the trash can at the upper left of the selected part. This returns the part to the parts bin.

Passwords: Each time a puzzle is solved a password is provided for later access. After quitting the game, a password of the last puzzle solved will appear on the screen. Passwords have two parts. The first word is needed to return to a level. The cryptic stuff after the dash is for the score.

Steps to Make a Freeform Puzzle:

1. Click on the wrench in the Control panel.
2. Create a machine.
3. Clear the parts bin.
4. Lock down parts, remove some key parts and put them in the parts bin.
5. Add decoy parts if desired.
6. Type in a goal.
7. Save the puzzle.

Note: Solutions for Freeform puzzles are not recognized by the game. Players are on the honor system when solving a Freeform puzzle.

Freeform Puzzle-Making Tutorial: "TONSOFUN"

1. Click on the wrench in the Control panel.
2. Load the tutorial machine titled "TONSOFUN" from the Control panel by clicking on the Load Disk (the arrow pointing away from the disk). You can also select Load Machine from the Freeform Menu.
3. Clear parts bin. While still in the Control panel, click in the parts bin to bring up the Adjust parts bin. Click on the bomb to clear the parts bin.
4. Remove and lock down parts. Decide which parts should be displayed and which parts should be put in the parts bin. For "TONSOFUN" removing the teeter-totter, the magnifying glass, the flashlight and the monkey motor would be good choices. Once these parts are in the parts bin, lock down the remaining parts by clicking on the lock at the upper right corner of any selected part. Locking down parts prevents the person solving the machine from moving parts around.
5. Add decoy parts (optional) to make the puzzle more challenging. To add a decoy, click once on the part to be added. If there are too many decoys, click on the decoy part in the parts bin to remove it. Decoys can be added to a puzzle at any time. Be careful, too many decoys could change the solution to a puzzle, making it much easier than intended.



6. Name and save the puzzle. Now return to the Control panel by selecting the arrow icon and click on the box under the puzzle preview area. Type "Open Jack's box so he can talk with Pokey" and hit the return key. The description should now be in the box. Save the puzzle for later use. Click on the disk icon (the arrow pointing toward the disk) or select Save Machine from the Freeform menu. Type in a name and click Save to finish the puzzle. This puzzle can now be enjoyed by all.

Music Hot Keys: In Freeform mode, the numbers 1 through 9 or the letters of the alphabet A through L on the keyboard reveal several different tunes. You can also select tunes from the Music menu.

Pause Hot Key: To pause a puzzle or machine press "P" on the keyboard or select Pause from the menu.

Parts Information

Baseball: It falls, bumps around and doesn't bounce much.

Basketball: It falls, bumps around and is pretty bouncy.

Bowling ball: It is really heavy when dropped and doesn't bounce much.

Eight ball: Once it's hit, it moves in a straight line until it smacks another object or goes off the screen.

Cannon ball: It is a really heavy thing to drop or roll into something else.

Super ball: When it falls and hits something, it's anyone's guess where it will bounce. It gains more velocity with each bounce.

Tennis ball: Same size as the baseball but has a lot more bounce and is not as heavy.

Balloon: Tie a string to it. Watch it pop when it hits gears, scissors, candle, rocket flame, or nail. It can pull up the teeter-totter, shoot the gun, trigger the boxing glove, or push the bellows.

Nail: It pops balloons and can be used to support Mels too!

Teeter-Totter: Tie a rope to an end or drop heavy things on either side to propel objects up.

Bellows: Drop something on it or push it up with a balloon and it blows air to push balloons or blow out candles.

Boxing Glove: Push the button and it punches things.

Trampoline: Things keep bouncing higher and higher on this.

Eye hook: Tie a string to it to hold things down or up.

Pulley: Run a rope through it.

Gun: Tie a rope to the trigger. When the rope is pulled, the gun fires a bullet.

Scissors: Drop something on the handles and they cut rope or pop balloons.

Light Switch / Outlet: Use as an electrical power supply. It provides power when the switch is turned on.

Generator: It transfers rotational energy into electrical energy when connected to a mouse motor, monkey motor, etc. The generator comes with its own outlet and puts out power for electrical parts.



Solar Panels: Turn on the light bulb or light the candle next to it and it provides power to electrical parts.

Fan: Plug it in and it blows air.

Vacuum: Plug it in and it sucks up just about anything.

Electric Engine: Plug it into the light switch and add a belt. It powers objects.

Brick Wall: Stretch it up or down. It acts just like a brick wall. Dynamite blows these up.

Pipe and Curved Pipe: Stretch this one like the brick wall. Dynamite can't blow these up.

Wood Wall: Exactly like the brick wall. Dynamite blows these up.

Dirt Wall: A lot like the brick wall. Things roll slower on this stuff and don't bounce as high.

Incline: Objects go up or down on this. It's used to direct floating balloons too. Dynamite can't blow inclines up.

Rope: Ties to just about anything—teeter-totters, balloons, buckets. You can even run the ropes through pulleys.

Belts: To connect a mouse motor with a conveyor belt choose the belt icon from the parts bin. Put the cursor over the mouse motor and click once. A red line will appear from the motor to the tip of the cursor. Move the cursor over the conveyor belt. When the line turns green, click once to secure the belt. If the line remains red, the parts are probably too far apart to be connected. Move them closer and try again. All belts are connected the same way.

Belts and Ropes: Select a belt or rope by clicking once. Put the cursor over the mouse motor and click and drag the cursor over to the conveyor belt. When the line turns green, release the mouse button to secure the belt to the conveyor belt.

Gear: Use a belt to connect to a power supply part. Mesh gears together to change the direction of the power supply.

Conveyor: Belt this up with a power supply part. It carries objects short and long distances.

Jack-in-the-box: Belt this up to a power part. Jack pops up and flings objects up in the air.

Windmill: Blow on it to make it spin. Use it with a belt to power another object.

Magnifying Glass: Use it with any light source to ignite any objects which have a fuse.

Flashlight: Drop an object on the button to turn it on. Use it with the magnifying glass to light things. It powers solar panels.

Light bulb: Tie a rope to the string and pull down to turn it on. Use it with the magnifying glass to light things. It powers solar panels.

Cannon: Light this with the candle, rocket, or magnifying glass. Blows holes in brick walls!

Dynamite: Light sticks with candle, rocket, or magnifying glass. Blows up brick and wood walls (but not ramps) and propels objects.

Rocket: Light it with the candle or magnifying glass. It shoots up in the air.

Candle: Light this with the magnifying glass or rocket. Use it to light the rocket, dynamite, etc. It heats the teapot.

Teapot: Light a candle under it and use the steam to push things up.



Dynamite Plunger: Drop an object on the plunger and it really blows things up!

Bucket: Tie a rope to this or drop something heavy inside it to make things go up or down.

Cage: Tie or cut the rope holding this to catch the cat, Mel, or the mouse.

Pokey the Cat: He goes after Mort mouse and Bob the fish especially if he is really close to the fish bowl, or if the fish bowl is broken. He munches fish and mice.

Mort Mouse: Runs after cheese and away from Pokey the Cat.

Cheese: Colby - Mort's favorite!!

Mouse Cage: Bump this one and she'll start running in her cage. Tie a belt to it to power objects.

Bob the Fish: Break the bowl and it attracts Pokey the Cat.

Monkey Exercise Bike: Pull down the string to open the shade so Kelly the monkey sees the banana. Once she sees it, she peddles like crazy. Attach a belt to the wheel and the monkey powers anything that is driven by a belt.

Mel Schlemming: He keeps on going and going... If he falls too far, he dies! Ernie Alligator loves munching Mels.

Mel's House: Mel's main goal is to make it home safely.

Ernie Alligator: Eats Mels and Morts. He flips objects with both his snout and tail.

Pinball Bumper: Objects bounce off this thing in all different directions.

Frog Xing

Rules of the Road: Your goal is to guide your frog to the landing on the other side of the road and river. Along the way, you must dodge cars and trucks and avoid drowning in the water. You can cross the river by jumping aboard a lily pad, a log, or a turtle. Beware of the alligator and of the snake!

To complete a level, you must land one frog in each dock. You may not land two frogs in the same dock. Be very careful when docking as the docks have walls on their sides which can smash the frog.

Scoring:

Catching the girl and boy frogs... 50 points

Docking after a kiss... 200 points

Docking with both a kiss (heart) and a bug... 400 points

A time remaining bonus is added when docking.

Docking (plain)... 100 points

Docking and catching a bug... 200 points

Completing a level... 100 x level

Keyboard: The i, k, j, l keys move forward, back, left, and right, respectively. You may change the keys in the Game menu.



Hot Spot

The **Hot Spot** board is comprised of four concentric rings of connected squares, plus a center square called the "hot spot." The goal of the game is to place tiles on every square of the board. You will always start on the outer ring and work in towards the "hot spot." The "hot spot" will always be the last square filled – placing a tile in the "hot spot" will win the game.

Before you start a game of **Hot Spot**, you should choose a difficulty level from the submenu under the "Options" menu, and you should choose what sort of undo functionality you'd like (also from a submenu under the "Options" menu). These two options can not be changed during the course of a game.

To start the game, click on a tile in one of the corners around the board and drag the tile onto a square on the board. You can either hold down the mouse button while you drag and let go when the tile is where you want it, or you can click once and drag the tile, then click again to place it.

Tiles in any ring can not match their neighboring tiles in the same ring by color or by symbol. Tiles in the inner rings, and the tile in the "hot spot," must match one of the connecting tiles of the next outer ring by color and the other by symbol.

There are 16 different tiles, consisting of every combination of four colors and four symbols. The "pouch" from which Hot Spot draws the next tile contains two of each of the 16 tiles, making 32 in all. There is just a single pouch, so regardless of which tile you place, the next tile drawn from the pouch will be the same. Before each game, Hot Spot checks the arrangement of the pouch to make sure that the game you are about to play is solvable. In theory, you can win every Hot Spot game with a perfect score.

Tiles placed on the outer ring are worth one point each. The next inner ring is worth five. The third ring is worth 25. The fourth inner ring is worth 125. Placing a tile in the "hot spot" is worth 394 points. If, after filling the "hot spot," the tile you left unplaced could have been placed in the "hot spot" instead of the tile you actually placed there, you will receive an additional bonus of 223 points. A perfect score is 1,023 points but any score over 250 points is excellent. Hot Spot displays your score to the left of the playing board, using binary notation with the least significant bit at the top. Negative scores are shown in red. Games do not automatically end when there are no valid moves; this gives you the opportunity to undo one or more moves to try to play the game further.

LandSlide

The goal of **LandSlide** is to build a continuous bridge from one goal to the other: One player tries to build a bridge between the left and right edges of the play area while the other tries to connect the top and bottom edges.

Players take turns selecting any available hex (all unoccupied hexes are available). Bridges do not have to be straight lines. The winning bridge must only be a solid path from one goal to the other.

Lose Your Marbles!

The objective of **Lose Your Marbles!** is to fill the board with marbles so no row, column, or diagonal has two of the same marble. You can use up to 10 different types of marbles, but the fun of **Lose Your Marbles!** lies in filling the board with as few different marbles as possible.



Lose Your Marbles! can be played with several different board sizes. For the 5 x 5 board, the best possible solution uses only 5 different marbles. The 6 x 6 board can be solved with 7 different marbles, as well as the 7 x 7 board. The 8 x 8 board requires 9 different marbles.

During a game, you can place a marble at the current position by typing its number (0 through 9). It doesn't matter which numbers you use; you could solve the 5 x 5 board with marbles 3, 4, 6, 8, and 0 if you really wanted to.

You can move to other positions on the board using the keyboard (i, j, k, m keys), the arrow keys, or the mouse. To erase a marble from its current position, press Space or Delete.

To change the size of the board before you start a new game, select one of the board sizes from the "Options" menu. (You do not have to set the board size before opening a saved game, since the board size is stored with the saved game data.) If you are happy with the board size, select "New game" from the "File" menu to start a new game.

During a game, you can shift the entire playing board in any direction. Marbles shifted off the edge of the board will wrap around to the opposite side. Be aware that shifting the board will probably cause more problems than it solves. Diagonals which used to be fine may end up with duplicate marbles after shifting. (Don't panic; you can always shift the board back to the way it was.)

Lumpy

Lumpy is based upon the ancient game of Go. Go is one of those games that has only a few simple rules, but somehow manages to offer unlimited complexity.

Equipment: **Lumpy** is played on a square, "wooden" board that is crisscrossed with intersecting lines. Each player uses round, flat playing pieces called "stones" – one player uses black, the other white. The stones are played on the intersections of the lines, not in the squares. The traditional board is 19 x 19 lines, but most beginners start with a 9 x 9 board.

Playing Lumpy: With each turn a player may either place a single stone on the board, or pass. Unless captured, the stones stay where they are. Black always goes first.

The object of the game is to control the largest amount of "territory" on the board. A player's territory includes that player's stones in addition to the area they surround.

A "liberty" is a vacant intersection horizontally or vertically adjacent to a stone. Although the stones don't move during the game, you can think of a liberty as a sort of "escape route" along the lines of the board. A stone, or group of same-color stones, is captured when all of its liberties are taken by its opponent. Captured stones are removed from the board.

A stone can be played on almost any empty point on the board. There are just a few exceptions. First, suicide moves are illegal. In other words, your move cannot take the last liberty of a group of your own stones, thus self-capturing them. However, the capture of your opponent's stones has a higher priority—if the suicide move takes the last liberty of a group of enemy stones in the process, then the move is legal and the enemy stones are removed.



Second, your move cannot recreate a former board position. Sometimes you'll get in a situation where it would be possible for both sides to capture and recapture the same two stones over and over. Because of this rule, after the first capture, the other player can't immediately re-capture. Instead, he or she has to play somewhere else on the board. After two consecutive passes, the game is finished.

Mac Box

The objective of Mac Box is to locate all the stones on the play field. To locate the stones, you can fire lasers through the play field. This will give you information as to where the stones are located. When you first play this game, select "Show Help" from the Help menu. A help screen will appear giving you an explanation of whatever area you currently have your cursor over. These help screens cover all important information about game play.

MacBrickout

Instructions: Knock out the bricks and don't let the ball go off the bottom of the screen. The more bricks you hit before missing the ball, the more points you get.

Hints:

- In 2-player mode, each player must complete an entire level before the other player gets a turn.
- You can not change how hard you hit the ball nor can you spin the ball.
- The ball responds to angle: If you hit the ball on the center of the paddle, it will travel straight up and down. On the edges of the paddle you can achieve near horizontal motion.
- Operate the paddle slowly and gracefully. Quick jerky movements will cause you to lose the ball.
- When you hit the Erase button in the high score list, all the scores disappear and the Erase button changes to an "Unerase" button. Hit that button and your scores come back. Once you hit the OK button, the state of the high score table is remembered.
- Click the mouse button to pause the game. Also, if you are using a mouse, remember keep it clean so it can roll smoothly.

MacMines

The objective of **MacMines** is to locate all the mines on the playing field as quickly as possible. As you uncover squares (hopefully those without a mine), a number may be revealed. This number tells you how many mines are located adjacent to the square with the number. For example, if a square has a 2 in it, there are two mines somewhere in the 8 surrounding squares. Your job is to use the information provided by these numbers to correctly locate all the mines on the playing field.

To start the game, simply click on any one of the squares to uncover it. The timer will start. To win, you must correctly mark all mines (via shift-clicking) and uncover all the unmined squares on the playfield.



Game Settings: All game settings, including Skill Level (Custom Level too), Game Options, and Click Options are saved for you when you quit **MacMines**.

Craters: This option will place a number of craters on the play field depending on your skill level. Craters do not contain mines, but they don't give you any information about how many mines are located in the surrounding squares either.

Moving Mines: This option allows a single mine to move from one location to another hidden location at periodic intervals depending on your skill level. Be careful, a place you correctly marked as a mine before may no longer be correct if that mine decided to move.

Randomizer: This places a single randomizer square on the playfield. When you uncover this square, all the mines will move from their present locations to new locations (following the same rules as for the moving mines option).

Click Options: Here are the default actions taken for clicking on the minefield:

Click: Uncovers the square.

Shift-Click, Control-Click, or Command-Click: Marks the square as a mine.

Option-Click: Marks the square as questioned.

If you wish to change any of these actions, select Click Options from the Options Menu. From this dialog, use the pop-up menus to select the action to be taken for each type of click. This will be saved for you so that next time you play, the same options will be in effect. Select Defaults from this dialog to get back to the defaults described above. Note that **MacMines** must be on a writable volume for these changes to be saved.

Super-Click: A super-click is accomplished by clicking on a number in the minefield (in other words, an already uncovered square that has at least one mine next to it). Let's call this square the super-clicked square. If you have already marked as mines the number of adjacent squares indicated in the super-clicked square, all unmarked adjacent squares will be uncovered (be careful since if you made a mistake in marking the squares, a mine might be automatically uncovered and you'll lose). If the number of uncovered squares equals the number indicated in the super-clicked square (minus any already marked adjacent squares), all unmarked squares will be marked as mines.

Skill Levels

Easy: Hides 10 mines on an 8 x 8 field. The craters option creates 5 craters, and the moving mines options moves mines every 10 seconds.

Intermediate: Hides 45 mines on a 16 x 16 field. The craters option creates 20 craters, and the moving mines options moves mines every 20 seconds.

Difficult: Hides 99 mines on a 30 x 16 field. The craters option causes 40 craters, and the moving mines options moves mines every 30 seconds.

Custom: You get to specify the above perimeters. High scores and level statistics are not kept for custom levels.



Best Times and Statistics: For every combination of skill level and options, the best 10 scores and level statistics are kept (number of attempts, number of successes, and average time per success). Since there are 3 skill levels and 3 options which can be mixed/matched, there are 3x8 or 24 best times and statistics lists. When you bring up the best times and statistics list, the best times and statistics for the current skill level and options set are shown (if you are using a custom level, the easy level for the same set of options will be shown). The skill level is indicated at the top left of the window by three buttons labeled "E"asy, "I"ntermediate and "D"ifficult. Only one skill level can be viewed at a time. The options set is indicated at the top right of the window by three buttons labeled "C"raters, "M"oving mines, and "R"andomizer square. Any combination of these three indicators is allowed (example: craters and moving mines). Click on an options set button to toggle its state (on/off) or on a skill level button to see any list you desire.

MongoPong

Like the classic computer game "**Pong**", two players (or one against the computer) use paddles to keep balls out of their goals while directing them into their opponent's goal. **MongoPong** adds bumpers, tubes, moving goals, multiple balls, opponent freezing and a whole lot more. For a complete explanation of game play, look at General, Controls, and Options under the Help menu.

Otello

Otello is a two-player strategy game. The two players, black and white, take turns with each placing a single piece of his own color on an unoccupied square on the board. White makes the first move. In making a move, a player must bracket some of the other player's pieces with ones of his own. When a piece is placed on a square, all bracketed pieces in all directions are "flipped" to become the opponent's color. If there are no squares that allow a player to make a legal move, the player loses his turn.

The game ends when there are no empty squares or when neither player can make a legal move. The winner is the player with the most pieces. To see ideas for good game play strategy, look at Hints under the Game Menu.

Pegged!

The objective of **Pegged** is to remove all but one peg from the playing board. Pegs are removed from the board by jumping one peg over another. You can only jump one peg at a time. The jumped peg is automatically removed from the board. Diagonal jumps are not allowed.

Winning/Losing: When only one peg remains, you win. If there is more than one peg left on the board and there are no legal moves remaining, you lose.

Playing: Start a game by clicking and dragging a peg. If you want to start over, simply select New Game from the File menu (or use the Play smart-icon).

Taking Back Moves: Use the Take Back command from the File menu (or use the smart-icon) to undo a move. You can take back as many moves as you want, all the way back to the beginning of the game.

Large Board: By clicking on the zoom box in the main **Pegged** window, or selecting Large Board on the File menu, you can change the size of the **Pegged** window between the regular size and a "large" size (which is exactly twice the size of the regular board).



Auto Advance: With the auto advance feature turned on, the next puzzle will automatically be selected for you once you solve the current one. If you have just solved the last puzzle for a board, the first puzzle on the next board will be selected.

Saving the Current Puzzle and Board: The current board and puzzle number you're on will automatically be saved when you quit *Pegged* so next time you play you start where you left off.

Boards: There are numerous peg board styles and each board presents its own challenges. Select a board style from the Board menu (or use the appropriate smart-icon).

Puzzles: Each board has a number of puzzles to solve. Use the Puzzles menu to select the puzzle you want to solve (or use the appropriate smart-icon).

Pentominoes

Pentominoes is a game with a deceptively simple objective: fit twelve different pieces on a game board. Pieces may be rotated and flipped to fit on the board, but they may not overlap each other.

To play *Pentominoes*, you should select a board from the "Board" menu. There are over 90 boards to choose from, but it's best to start with the Basic Rectangles 8 x 8 board. This board is easier than all the others because it has 64 spaces to fit your 12 pieces into — that's 4 more spaces than you need! You can leave the 4 blank spaces anywhere you like and still win.

To place a piece on the playing board, first highlight the 5 spaces on the board where you want the piece to go. (If you're just starting out, you can see what each piece looks like in the pieces palette — check Options/Show pieces palette while playing.)

To actually place a piece after you've highlighted the appropriate squares on the board, hit Return, Enter, select Options/Place piece, or click on the piece in the palette bar (if you have the "Show Pieces Palette" option selected. To remove the last piece you placed, select Edit/Undo. You can also remove any piece you've already played by double-clicking on it, or clicking on it once and hitting Delete or selecting Options/Remove piece. You may use each piece only once.

Poing!

Quick Start: Start a game by clicking the "New Game" button. You'll see a brief description of level 1. To begin playing level 1 click the "Begin" button. Each time you successfully complete a level, you'll see a similar description of the next level; the game will always wait for you to click "Begin" before starting any level.

The goal in each level is to hit targets with the ball. You'll be given one target at a time. If you hit it, it will vanish and a new one will appear somewhere else, until you either hit all the targets for that level, or you run out of time. If you run out of time, the game is over.

You control the ball by placing bumpers in its path. When the ball hits a bumper, it bounces off at a 90° angle. There are two kinds of bumpers: ones that lean right, like a slash /, and ones that lean left, like a backslash \. To place a bumper, press the slash or backslash keys on your keyboard. The bumper will appear just ahead of the ball, so that the ball hits it and changes direction almost immediately.



Bumpers stay put until you start a new level, or until you remove them. To erase a bumper, press the Space bar just before the ball reaches the bumper. You can also change an existing bumper to the other kind of bumper by pressing / or \ as usual just before the ball reaches the bumper.

If you find that the ball moves too fast at first, try selecting the "Slow Ball" option in the Preferences menu.

Scoring: You get ten points every time you hit a target. You also get bonus points when you complete a level with time left over: one point for every remaining tenth of a second.

Time Limit: Each level has a time limit. There is a digital clock on the scoreboard which will show the amount of time you have left. To advance to the next level, you must hit all the targets before time runs out. You get bonus points for time left over. Five seconds before time runs out, the game will say "Uh-oh!" as a warning.

Targets: There is always exactly one target for you to hit. If you hit it, it will disappear and a new one will appear somewhere else at random. Each level has a certain number of targets you must hit before time runs out. The scoreboard will show you how many targets you have left to hit.

Traps: Traps are like flypaper. If the ball hits one, the trap will grab and hold the ball for two seconds, then release it. The only penalty is the loss of time.

Flippers: Some levels have "flippers." This means that every time the ball hits a bumper, the bumper will change from a / to a \, or vice-versa. Flippers make it much more difficult to predict the ball's motion.

Decor: Just for fun, the artwork will change every few levels. One background, called "Concentration", is special because its / and \ bumpers look identical, making it harder to predict what the ball will do unless you can remember which bumpers are which.

Patterns: Most levels start out with no bumpers, but some levels have a pre-set pattern of bumpers already in place when the level starts.

Shatterball

Shatterball is a 3-D version of **Breakout**. The goal is to clear the field of bricks by shattering them with repeated hits of a small ball.

Startup: You'll be presented with the stage selection screen. Just click on a number to play that stage.

Gameplay: A ball drops: grab it and throw toward the bricks. To grab or catch the ball, hold down the mouse button. Releasing the mouse button is equivalent to throwing the ball. Keep the ball alive by blocking it when it comes toward you: it will shatter to dust if it hits the glass. Catch it, and throw again.

Pausing: Hitting any key will pause the game. Clicking on the play field, or hitting the spacebar, will resume play.

Bricks: Some bricks will shatter with a single hit, some require multiple hits, and some may simply not shatter. Some will be invisible until hit.

The Paddle: The hollow rectangle is your paddle: it follows the movements of your mouse. You will use it to block, catch, and throw the ball.

Blocking: Just move the paddle between the ball and the screen. A sweeping gesture is recommended.



Catching: Press and hold the mouse button, then block as usual. You don't have to time the click the mouse: just get the button down before the ball gets there. (If the paddle doesn't flash when you press the button, you are out of catches and this won't work.)

Throwing: Continue to hold the button down after a successful catch. As you move the paddle, the ball will be dragged along, lagging slightly. Stop dragging, then release the button to throw: the ball will fly.

Zelvins: Hitting the light or dark rectangles on the rear of the court produces light or dark Zelvins. Zelvins look like shimmering balls, but they're not exactly physical. For example, they travel right through the bricks that block the regular ball. Catching a light Zelvin gives you extra balls, a dark Zelvin gives you extra catches, and one that flashes back and forth gives you both. You don't need to hold the button down to catch the Zelvins: just block them with the paddle. You'll know you got one when your paddle gets all shimmery for a second. You can even snare a Zelvin while holding the ball after a catch.

Balls and Catches: You have two resources to keep track of: balls and catches. The ease of Zelvin generation varies from stage to stage, so stock up when you can. You get an extra catch when you use each new ball. Balls can be traded for catches by just letting the ball shatter (you do lose some time in this procedure, while the new ball is produced.)

The Paddle Menu: "Set Paddle Power" allows you to customize the throwing feel of the paddle. "Drag" sets the overall power of the paddle: the higher the setting, the greater the attraction for the ball (and the shorter the lag between ball and paddle). "Throw" sets the speed ratio at which the ball flies into the chamber.

Scoring and Champions: Time determines your score: the shorter the better. The "Stage Champs" board shows the best time for each stage. "Big Champs" are those who have completed the most stages, or have the shortest total time if the game was finished.

Sid & Al's Toons

There are three main areas in *Sid & Al's Toons*:

Solve-A-Puzzle: Sid, the yellow mouse, will take you to Solve-A-Puzzle where there are 100 different puzzles which mess with your brain at varying levels of difficulty.

Head-2-Head: The icon of Sid and Al in boxing gloves takes you to the Head-2-Head area where you can take on the opponent of your choice.

HomeToons: Al, the blue cat, will take you to HomeToons. That's where you get to make your own cartoons with access to all 71 gadgets and characters.

Special Jigsaw Screen: This nifty little screen will pop up on your monitor each time you start the game. There's a picture hidden beneath all those blue and purple jigsaw pieces. Each time you solve a puzzle, another piece of the jigsaw will be revealed. Complete all the puzzles in all four levels (that's a total of 90 puzzles!), then fill in the blank on the jigsaw screen to win 10 bonus puzzles! If you can solve all ten of those, too, you'll win front row seats to a totally wild victory celebration!

Controls & Contraptions

Control Panel: Click on the Remote Control icon to bring up the Control Panel. Click on the Remote Control again when you want it to go away.



Action!: Click on the green Traffic Light to start up a Toon.

Grab-A-Gadget Bin: All the critters and parts are crammed into this little bin. There are 71 parts in all. Use the fat arrows at the bottom of the panel to scroll through all the available stuff. Click on the part you want with the mouse, then drag the part to the desired location and release the mouse button. (Note: You can also return parts to the Grab-A-Gadget bin by moving them back over to the bin and clicking the mouse button.)

Scroll Through the Parts: Click on the arrows to look at all the parts you can use to solve the puzzle.

Note: To stop a Toon you need to click on the red Traffic Light or anywhere else on the screen.

Signs: Click here to bring up the Main Menu.

Piggy Bank (Load): Choose the Piggy to load a different puzzle.

Clapper: Click here to see the title and goal of the puzzle you've selected. The goal tells you what you need to do to solve the puzzle. Note: CD ROM players don't have this button since all puzzle goals are spoken.

Honker: Click here to adjust your sound and music options. There are all kinds of hot tunes at your disposal, ranging from bebop to jazz.

Nuke-a-Toon: Click here to black away all the new parts you added to a puzzle. Then you can start over.

The End: Click here to quit.

Manipulating Parts

Handles: As soon as you plop down a part on the stage, a bunch of small Handles will appear all around it. Each part does different things, so some of them have more handles than others. Here's what the different handles do:

Turtle: Flips a part left to right or right to left.

Dog: Flips a part from up to down or down to up.

Spring: Stretches a part downward.

Flower: Stretches a part upward.

Accordion: Stretches a part to the right.

Worm: Stretches a part to the left.

Toilet: Flushes a part off stage and back to the Grab-A-Gadget bin.

Computer: Only seven parts have this handle. Click here to adjust the function of a programmable part.

Highlight & Handles: Once a part is placed on the stage, highlight the part by moving the cursor over it. The part will have a rotating yellow dotted border once it's highlighted. The toilet, dog, turtle, and computer need only a click to manipulate a part. To manipulate the spring, flower, accordion, and worm, you must click and drag the handle to the desired length and then click again to release it.

Toon Tip: After you've solved a puzzle, you can check to see if your solution is the same as ours. Just switch over to HomeToons, load in the solved puzzle, then hit the Traffic Light.

Hot Keys: Use the following Hot Keys to go straight to the parts you need in the Grab-A-Gadget parts bin:



A = AI	X = Explosives
F = Food	W = Walls
R = Rope Parts	I = Inclines
C = Belt Parts	P = Pro Parts
E = Electrical Parts	M = Misc. (Teapot through Gum)
B = Balls	

(Note: You can only use Hot Keys when you're in Home Toons).

Hometoons Control Panel: HomeToons is where you get to make your own puzzles using any of the parts in the Grab-A-Gadget bin. All you need to do is create a puzzle (a series of events or reactions that lead to some final conclusion – like making a piano fall on top of AI's head). To make a puzzle of your own, rig up a whole series of actions you want to take place (including the ending), then remove a few strategic parts stored in the Grab-A-Gadget bin. Let your friends try to figure out how those parts fit into the game to solve the puzzle.

Piggy Bank: In the Piggy Bank (Load) function, you can choose puzzles from four levels of difficulty, plus any Toons you've made yourself and saved. Click on any of the five pictures to see the file names and titles of puzzles in that level. Each of the four levels contain fifteen regular puzzles and five locked bonus puzzles (with the exception of Cake Walk, which has 30 Tutorials.) You have to solve all 15 of the regular puzzles to unlock the bonus puzzles. If you solve all 90 puzzles (that's every single puzzle at all four levels, including the bonus puzzles), you'll be given a secret password. Use this password to fill in the blank on the Special Jigsaw Screen (see the beginning of this user guide), and you'll unlock ten MORE outrageous puzzles (which you'll find double-padded in the Really, Really Hard level and the Looney Bin level)!

Screen Shots: To do a "screen shot" (into a PICT format), hit the [Command] + [Shift] + [3] key. The cursor will turn into a nifty watch icon while the grab is in progress.

Difficulty Levels

Cake Walk: All the puzzles at this level are Tutorials. Tutorials show you how different puzzle parts work, and give you puzzles to solve while you practice using those parts. There are 30 Tutorials in this level and no decoys are used.

All Brawn, No Brains: These puzzles are a little bit tougher than the ones in Cake Walk. There are 15 unlocked puzzles and five locked puzzles in this level.

Really, Really Hard: At this level, the puzzles start getting tough. Use the Tutorial puzzles in Cake Walk to learn how to deal with the new, more difficult parts. There are 15 unlocked puzzles and five locked puzzles, plus five double-locked puzzles in this level.

Looney Bin: Watch out! The puzzles in this level will send your brain into contortions. There are 15 unlocked puzzles and five locked puzzles, plus five double-locked puzzles in this level. The ten double padlocked puzzles can only be opened by solving all 90 puzzles in the game!

Hometoons: Whenever you make a Toon of your own (you have to be in HomeToons to do this), you can save it into this bin. Then you'll have it available to load just like any other puzzle. See if your friends can crack your puzzles! Have contests! But keep a close eye on your buds because HomeToons puzzles are on the "honor system" – the game won't acknowledge correct solutions for HomeToons puzzles.



Canisters & Padlocks

A closed film canister appears in front of the file name of every unsolved puzzle.

Once you've solved a puzzle, this open film canister appears before the puzzle's file name. It'll help you keep track of how many puzzles you've solved and how many you have left to go.

A padlock appears in front of the file names of the five bonus puzzles at each level except Cake Walk. After you've solved all fifteen of the regular puzzles at that level, the padlocks will disappear, and you'll be able to take on the bonus puzzles.

There are ten super gnarly double-padlocked puzzles: five in the Really, Really Hard level, and five in the Looney Bin level. But you must solve every single puzzle, plus every bonus puzzle in the whole game, to crack them open!

How to Delete HomeToon Puzzles: From the HomeToons bin, find the puzzle you want to delete. Take note of the file name, then exit Toons. From Finder, locate the folder indicated by the by the Folder Name area of the HomeToons bin. Drag your chosen file to the trash can and select Empty Trash.

Piggy Bank Save: If you've just made a puzzle you want to save, click on Piggy Bank and choose Save. The big green Piggy screen will come up. Then click on the Title space. Write in a name for your new Toon, and hit the yellow Save button.

HomeToons Check List: This nifty tool lets you go through the whole Toon-making process from one easy check list. Here's what each function does:

Make-a-Toon: Click on this to go back to the Toon you're creating.

Goal: Click on this to write in a goal.

Lock All Parts: Click on this to automatically lock all the parts on the stage into your puzzle. Then go back to your Toon and use the Unlock Handle to select any parts you don't want locked down. They'll appear in the Grab-A-Gadget bin when you go to Test-a-Toon. (Some of these unlocked parts can be decoys – these serve no purpose in solving your puzzle. You stick them into the game just to mess with people's heads!)

Tune Toon Tunes: Click on this to select music for your new Toon. This music will be played each time you load that particular Toon back into action.

Test-A-Toon: Click on this to check out your finished Toon. Play it out just as you would a regular puzzle.

Save-A-Toon: Click on this to go to Piggy Bank. Then hit the yellow Save button... and finito! Your puzzle is complete.

OOPS: Click on this to exit the checklist and go back to work on your puzzle.

Toon Tip – Clone a Part: If you want to copy one of the parts on the stage, just put the cursor on it and double-click the mouse button and a duplicate copy will go wherever you move it. In HomeToons, parts can be duplicated as many times as you like. But in Solve-a-Puzzle, you have a limited number of copies available for each part – this number is written next to the part in the Grab-A-Gadget bin.

Puzzle Parts

Ropes: Use ropes to tie things down, hang things in the air, or hoist stuff up off the ground with the help of a pulley. Ropes can only be used for hitching two objects together (such as an eye hook and a piano, or an anvil and a teeter-totter). Ropes can only be tied to certain parts: teeter-totter, eye hook, pistol, lunch whistle, anvil, piano,



balloon, and trap door. Click on the rope in the Grab-A-Gadget bin and bring it out onto the stage. Click again on top of the first object you want tied, drag the rope toward the second part you want roped (you'll see the rope stretching as you move it). Click the mouse again when the rope turns from pink to green.

Belts: Use these to attach any two rotating parts together. (Follow the same procedures described for the rope.) If you want to power something with Cliff Ant or the Chow-Man Motor, you'll have to hitch a belt between the motor and the rotating part you want to drive (a gear, a conveyor belt, Skeleto-Bobbin, or the Trans-Roto-Matic). The parts you want to hitch together have to be pretty close, because belts don't stretch very far. Belts are pink while they are active and will not hitch to another part until they turn green. Only one belt can be attached to each rotating part. Belts can only be tied to certain parts—conveyors, gears, Cliff Ant, Chow-Man motor, Trans-Roto-Matic, and Skeleto-Bobbin.

Pulleys: Pulleys can be used between any two parts that can be connected by rope. Tie one end of a rope to an object then run the rope over as many pulleys as you like, and tie the other end of the rope to another part.

Skeleto-Bobbin: Here's a cool rig for turning "rotational" (around in circles) movement into "translational" (back and forth) movement. Hitch it to Cliff Ant, the Chow-Man Motor, or to a gear by connecting a belt from the skull head wheel to the belt part. Tie a rope to the fingers and hitch the other end to any rope part you want to yank (such as the teeter-totter).

Trans-Roto-Matic: This weird little device turns "translational" motion (back and forth movement) into "rotational" motion (around in circles). You can hitch it up to gears or conveyor belts by attaching a belt to the big gear in the center. The big gear in the center will turn one rotation for every time something bumps the spring on the end of the "translational" rod. You can also tie a rope to the eye hook at the end of the rod and hitch the other end of the rope to something you want yanked.

Tunnel: You can get Sid or Al to use this tunnel by leaving some kind of goodie on the far side of the doorway. Al will also chase Sid inside. The tunnel comes with two openings: an entrance and an exit. Drag the tunnel icon onto the stage and click on the spot where you want the entrance. You'll automatically be given a second tunnel icon, which you can drag to the position where you want an exit. Click again to set it down.

Power Supplies: "Electric" parts (the vacuum, the hair-dryer, and the timer) need to be plugged into a Power Supply before they'll work. To do this, just grab the Power Supply from the Grab-A-Gadget bin and set it down on the stage. Then take an electric part and set it down right next to the Power Supply—(make sure you put the Power Supply down first—it won't work the other way around). You'll know the machine is plugged in if a little yellow plug appears in the socket of the Power Supply.

Bik Dragon: Bop him on the tail with something and watch him spew fire. Use him to light the fuse of a bomb, heat the teapot, pop balloons, or to torch Sid and Al. Gravity has no affect on Bik.

Eunice Elephant: Drop something on Eunice's trunk and she'll chuck it into the air. Whack her on the rump and she'll blow stuff out of the way with a giant blast from her trunk. Whenever she sees Sid Mouse, she freaks out and changes directions. She sucks in any peanut (and anything else in the area) within snarfing range. Eunice is not affected by gravity.

Hildegard Hen: If something whumps her, she'll lay an egg or many eggs. She's not affected by gravity.

Teapot: Use Bik Dragon or the hair-dryer to get this baby cookin'. Then use the steam to move stuff around.

Ratapult: Bump this bad boy with another object and Phil Rat hurls boulders into the air.



Balloon: This floats very well. Tie it to stuff or use it to bump into stuff and force reactions.

Air Mattress: Way bouncy. Anything you drop on it will gain height with every bounce.

Magnifying Glass: Sid looks through this lens to freak out Al and make him run away.

Piano: Drop it on characters and objects to get reactions. Tie a rope to it, then use a pulley to hoist it up. Heave it onto the teeter-totter and hurl stuff into the air.

Anvil: Just to be nasty, you can drop it on Sid and Al. It has pretty much the same uses and behaviors as the piano.

Hat Pin: Excellent little tool for popping balloons...or for poking Sid and Al. It can be pointed in four different directions.

Pencil: Drop it on Sid's head and see what he does to Al. Put it in front of Al and check out what he does to Sid.

Bubble Gum: Sid and Al are both major bubble-blowers. Set a pack of gum in front of either critter and he'll head for it. Then he'll chow down a big wad, blow a bubble, and float into the air.

Egg: An egg. Way breakable.

Fish: This dead fish is just the kind of meal Al likes best. Put one on the ground wherever you want him to go.

Cheese: Sid Mouse will suck down this big hunk o'cheddar first chance he gets. Use it to move him in the direction of your choice.

Peanut: Eunice Elephant sucks up peanuts with so much force that all kinds of other stuff gets sucked toward her too. Use her suction-power to pull any object that's affected by gravity.

Banana: Sid and Al both like to scarf down a banana now and then. Watch out though. Those loose banana peels can be slippery.

Teeter-Totter: Tie a rope to one end to yank it up or down. You can also drop something heavy on one end and use it to fling another object into the air.

Eye Hook: Use this little guy with a rope to tie things down, or to hang stuff in the air.

Scissors: Drop something on the handle and the scissors can snip ropes. If Sid or Al spot a pair of scissors, they'll march over and pull down on the handle.

Pistol: Tie one end of a rope to the trigger, and tie the other end to a balloon (or something affected by gravity). It'll spew lead wherever you point it.

Lunch Whistle: Tie something heavy to the pull-cord to make the whistle blow. Sid and Al will stop EVERYTHING when it's time for a lunch break.

Trap Door: Tie a rope to it and give a tug, or bump it from underneath to make it fall open. You can also blast it open with a bomb.

Conveyor Belt: Use a belt to hitch this baby to a motor (such as the Cliff Ant or the Chow-Man Motor), then use it to move stuff.

Gears: These rotate when you hitch them up to a motor by using a belt. You can line them up against each other in a row to reach the distance and determine the direction of rotation you need. Gears must be placed either



beside or on top of each other — they won't work if you put them together at funky angles.

Cliff Ant: If something smacks him on the behind he'll start cranking his motor. You can hitch a belt up to his motor and use it to turn a gear, the conveyor belt, or some other rotating part.

Chow-Man Motor: Drop some food on the Chow-Man's tray and he'll make the treadmill turn. You can hitch the treadmill up to the conveyor belt or some other rotating part.

Vacuum: This bad boy Mega-Vac will suck up all kinds of stuff, including some of your favorite critters. Plug it into an outlet, flick the switch, and you've got action.

Hair-dryer: Hitch it up to an electric outlet and use it to blow stuff away.

Timer: When the time's up, a hand pops out of the side and smacks into anything that's in the way. It must be hooked up to an electrical outlet to operate.

Up/Down Counter: Hit the button on one end and it forces the other end out. Use it to bump stuff and cause a reaction. You can program it to count up or down to a desired number. **Thumpulator:** When something hits either of the red buttons, the Thumpulator arm pops out and smacks into anything in its way. If you drag down the little spring icon underneath the part, you can make it duplicate up to five times. Each time you hit the button, the next arm pops out.

Electro-Ramp: This heavy duty incline flips around automatically when certain critters or objects move beneath its lights.

Message Machine: Use a rope to pull open the curtain or bump the button on the bottom to reveal a hidden letter. You can program the machine to display any letter you choose. Then you can line a whole bunch of them up so the combined letters form a word.

Ball Bomb: Drop it, slide it down an incline, or set it on top of any wall you want to blow up. Bik Dragon can light it for you or you can set it off with a World War II Bombshell. You can also use it to obliterate Sid and Al. But it won't blow up inclines.

World War II Bombshell: This monster warhead explodes on impact. It does pretty much everything the Ball Bomb does, except you don't have to light it.

Dust Bunny: This nasty little wad makes all sorts of different things happen when you drop it on a character's head. You can also use it to bump into objects and force reactions.

Rock: Drop it on objects to force a reaction. Slide it down a ramp. It doesn't bounce much, loses energy pretty fast, and does serious damage if you drop it on top of Sid or Al.

Ball-o-Yarn: You can roll this spiffy kitty toy down an incline or drop it on something to cause a reaction. It bounces around a little, but quickly loses energy.

Bob Baseball: This guy bounces a little, and even talks!

Soccer Ball: A hit in Europe. It bounces like Bob Baseball.

Beach Ball: This coastal favorite is pretty bouncy.

Marble: This is the only part in the "ball" category that isn't affected by gravity. It won't roll down ramps or drop through the air unless it's whacked by another object. It maintains its speed until it thumps into something else.



Ball Bearing: Roll it down ramps, or drop it on things. It's heavy and doesn't bounce much.

Striped Super Ball: One fast 'n bouncy fella. It gains momentum with each bounce.

Dinky Blue Ball: Drop it, roll it, plink it off Al's head. It's bouncy, but will eventually stop.

Small Super Ball: This little orb acts just like the Striped Super Ball. It just isn't full grown yet.

Ladder: This helps critters get from one level of flooring to another. Any time Sid or Al pass in front of a ladder, they'll stop and climb it. You can get them to do this by plunking down a piece of their favorite grub on the far side of the ladder you want them to climb up or down. Al will also chase Sid up and down ladders.

Rug: Here's a nifty booby trap to put over a gap between floors. Sid can scamper right across. But Al's just a wee bit too hefty.

Wall-O-Steel: You can use this part to build a wall or a floor. It'll stretch to any length you need. The Ball Bomb or the World War II Bombshell can blast through it.

Wooden Wall: It has the exact same uses as the Wall-O-Steel, but it's not as slippery when you use it as a floor.

Rock Wall: Same as the other walls, but has very little slippage on the surface.

Log Wall: Same gig as the other walls, but with LESS slippage than steel, and MORE slippage than rock.

Vertebrae Wall: Just like the other walls, but little slippage.

Dog Bone Wall: Same deal as the other walls, but with a very slippery surface.

Candy Cane Incline: Build ramps out of this part by duplicating them and sticking them end to end. You have a choice of four angles. Roll balls down them, or make Sid and Al slide over them.

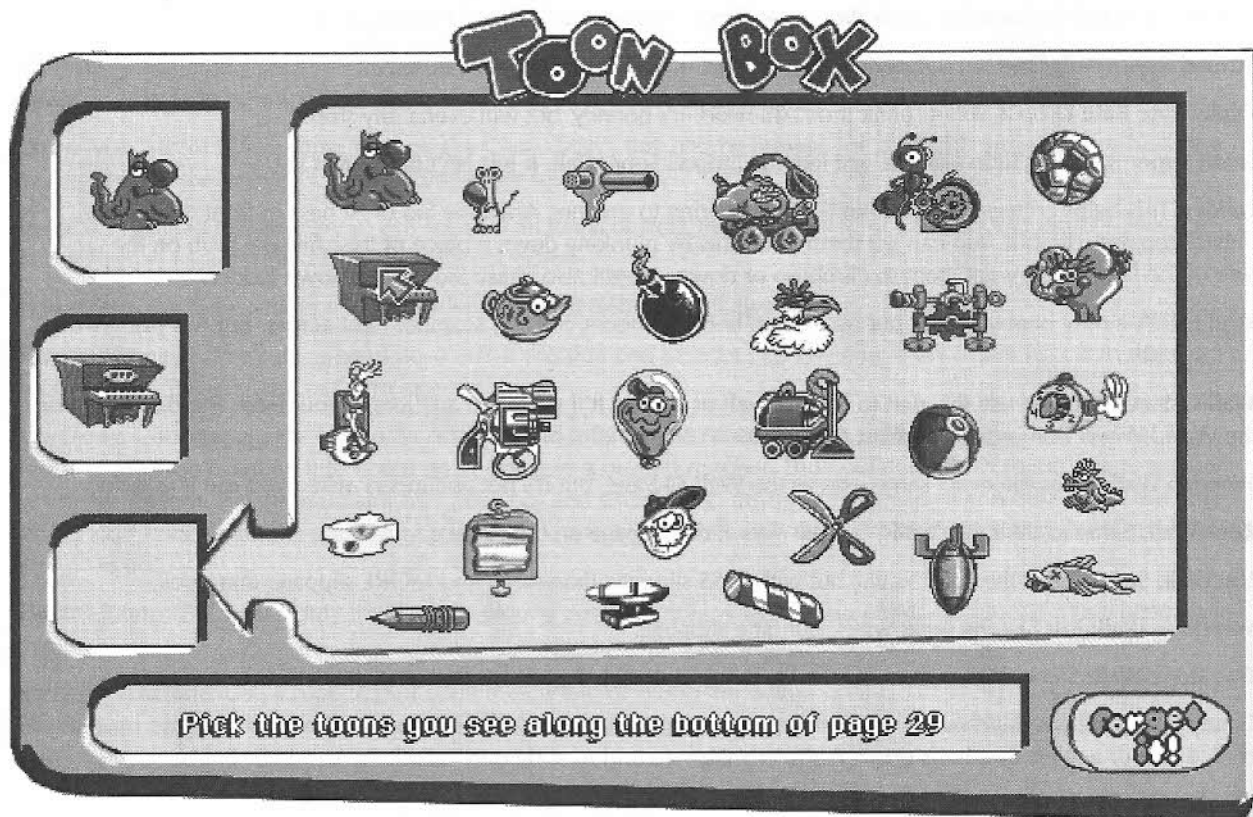
Tile Roof Incline: Pretty much like the Candy Cane Incline, but not quite so slick.

Thatched Straw Incline: Like the other inclines, but not very slippery.





















































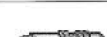



































































Stone Incline: Like the other inclines, but a lot slower to slide down.

Vertebrae Incline: A lot like the other inclines, but way slower to slide down.

Cracked Bone Incline: Just like the other inclines. A little slicker than the Stone Incline slope, but less slick than the Candy Cane.



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Sokoban

In **Sokoban**, the player tries to get treasure chests (round things) through a maze to their proper locations (outlined squares). The chests are so heavy you can only push them one at a time. Be careful you don't get a chest trapped in a corner; they have no handles so they can't be pulled.

Moving: There are several ways to move. You can use the arrow keys to move up, down, left, or right. Shift-arrow key will move you as far as possible in that direction, including pushing treasures. Control-arrow key will move you as far as possible without pushing. Instead of using the arrow keys, you can also use the numeric keypad 2, 4, 6, 8, or the letters w, a, s, and d. Choosing "Set Keys..." from the Edit menu lets you change w, a, s, and d to whatever other keys you prefer (the numeric keypad and arrow keys can't be changed). Of course, shift and control work with all the different key sets.

You can also use the mouse to move. The cursor indicates which way you'll move if you press the button (and you can drag yourself around, too). If you see a cross hair cursor, then clicking will move you to where you clicked by the shortest possible route. Or if you don't want to use the mouse to move long distances, hold down the option key. Then move the marquee around (with your favorite movement keys); when you let go of the option key, the player will zoom to the square you selected (if there's a clear path).

If you want to zoom to a square diagonally next to you, there is a shortcut. Instead of clicking on the square or pressing Option left-up, pressing one of the diagonally located keys on the keypad (7, 9, 1, or 3) will do the same thing. You can also use the q, e, z, or x keys if you're left handed (unless you changed them with the "Set Keys..." command.)

Menu Items: There are also several menu items that will help you.

- **File Menu:** From the File menu, you can restart the level if you get stuck. You can also make a temporary save before you mess up, and revert to it when you get stuck later. Or if you're really stuck, you can move on and try another level, then come back later and work on the unsolved levels. There are over 350 different levels included (separated into different collections), and you can make your own levels, too.
- **Edit Menu:** From the Edit menu, you can undo (and then redo) up to 10,000 of your last moves. So a couple of extra key presses in the heat of playing doesn't mean having to start the level over. There are many shortcuts for undoing: press function key F1 (often labeled "undo"), or the ESC or ` key (in the upper left corner of your keyboard). Shift-F1 (or shift-ESC or shift-`) is a shortcut for redo. Option-undo will undo several times, back until the previous push of a treasure (you can also use the option-key with redo, and it works with both the keyboard equivalents and the menu commands themselves).

Spelling Blizzard

Please see the **Spelling Blizzard** instructions in the PC Game Guide section of this Handbook.

Trist

The object of the game is to move stones around the board and score enough points to win the game. To see a complete Tutorial explaining game play, strategy and scoring click on "Tutorial" in the Options menu.



Yobi's Magic Spelling Tricks

In this game, you collect letters to spell words. The instructions for this game are identical to *Spelling Blizzard*, previously explained in this guide. However, the games have several different obstacles as explained below.

Obstacles: The instructions for the Fire Trickster, Wind Trickster, Dart Trickster, Stone Walls, Water's Edge, Land, Trees, Letter Tablets, Time Stop, Walk Over Water, Fire Ball Protection, Dart Protection, Wind Protection, and Trinkets are identical to the Spelling Blizzard instructions. The following items are unique to Yobi's Magic Spelling Tricks.

Rhinoceros: The rhinoceros has a pointed snout that can hurt you. The rhinoceros paces back and forth but does not turn. You can bribe the rhinoceros to move by giving it an apple.

Alligator: The alligator is constantly swimming and if you get too close it will charge at you. You cannot bribe the alligator.

Lion: The lion likes to stay near his home, but will charge if you get too close. You cannot bribe the lion.

Tiger: If you get too close to the tiger he will align with you and mimic your every move. You cannot bribe the tiger with an apple.

Elephant: Elephants tend to get in the way, but you can bribe them with an apple then push them out of the way. While the elephant is eating your bribe, his trunk will turn pink.

Hippopotamus: The hippopotamus bobs up and down in the water. When a hippo is bobbed up, you can walk across its back to the other side of the water. While it is bobbed out of the water throw an apple at it for a bribe. The hippo will carry you across, but be quick. The bribe will soon wear off.

Gazelle: The gazelle is harmless, but annoying. The gazelle runs at top speed around the play field and you can bribe it to stop if you wish.

Zebra: The zebra is always grazing and will ignore you even when you are close to him. If you bribe the zebra, he will follow you around the play field and stop wherever he happens to be when the bribe wears off.

Mud: You will slide on the mud in one direction until something stops you. Only then can you change direction. Animals will not go in the mud. Boulders slide in the mud like you do.

Hot Coals: These are bright yellow and orange. You can walk through the hot coals, but don't stop! No animals will go in the hot coals.

Dark Pits: No animals will go into a dark pit... and neither should you. Everything disappears when it gets too close to the edge.

Grass: This is a protected area for you. No animals will go on the grass unless you push them. However, you are not protected from tricksters while on the grass.

Boulder: Boulders can be pushed or used as barriers against tricksters or stepping stones in the water (but they will sink after a little while).

All-Terrain Vehicle: The vehicle is also a great barrier against the tricksters. It will float in the water, allowing you to cross the river. If you push an all-terrain vehicle it will continue in that direction until something stops it.

Apple: A red apple is used to bribe animals, causing changed behavior for 10 seconds. An animal can be bribed more than once.

Bridge: Pick up the bridge (walk over it) and place it at a sufficiently narrow section of the river. You cannot reposition it after you have put it down. The bridge will be placed in the direction you are facing.



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