



fraction munchers

educational computing activities
for the **apple® II** computer

Product No. HAP114

Disk and Instruction Booklet

A Word About MECC

MECC was created in 1973. Ours is the oldest and most trusted name in educational computing.

MECC has enjoyed a long tradition of designing and producing high-quality educational software for a world market. Our ever-expanding collection of products can be used on a variety of personal computers.

Widely adopted by schools, MECC's educational software is now available for home use. **Fraction Munchers** is just one example of the excellence you can expect from us.

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St. Paul, MN 55126

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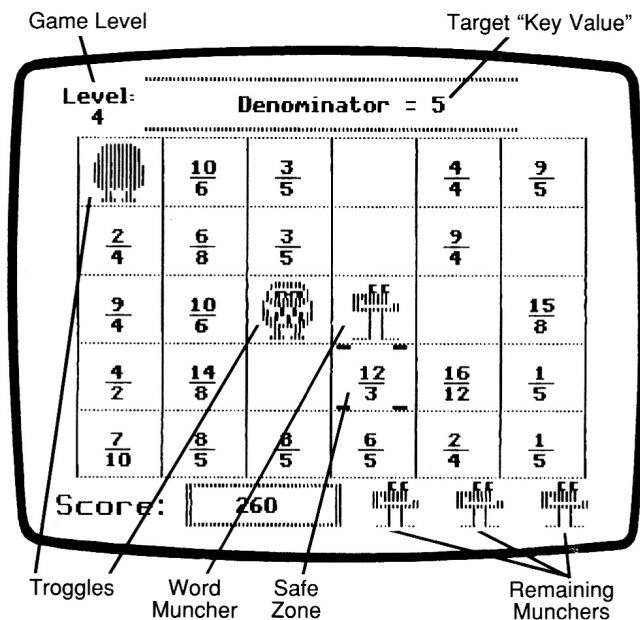
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Welcome to Fraction Munchers

Fraction Munchers consists of four educational programs (Fraction Types, Equivalent Fractions, Comparing Fractions, and Fraction Expressions) that focus upon several different but complementary mathematical skills involving fractions. Using an arcade-like game format, players must maneuver their "Fraction Muncher" around a game board and direct it to "eat" numbers or fractional expressions that match a criterion or a "key value." If they munch an incorrect number, they lose a Muncher. Players must also avoid "Troggles," creatures that love to catch and devour Munchers.

Children should have been introduced to the concept of fractions before using this program. Management Options are available that enable parents or teachers to select the games the child may play, set game parameters, and to erase the "Hall of Fame" list.

Four programs
For use by one player
Ages 8 to Adult



Introducing the Cast of Fraction Munchers

The Fraction Muncher loves to eat fractions—if they are the right ones! Be sure that the Muncher eats only fractions that match the key value at the top of the game screen. If you make a mistake, or if the Muncher gets caught by a Troggle, then the Muncher is lost.

You start the game with four Fraction Munchers (three in reserve and one on the game screen). You may earn one additional Muncher if your score reaches 1,000 points, and another at 10,000 points. Fraction Munchers are under your control. This means that you choose which direction the Fraction Muncher moves and when it eats a number or expression. If the number or expression that is eaten matches the key value displayed at the top of the game screen, then points are earned.

Reggies are the most common species of Troggle. When a Reggie enters a cell containing a number or expression, it eats it and leaves another target or distractor in its place.



FRACTION MUNCHER
(*Munchicus fracticus*)



REGGIE
(*Trogglus normalus*)

Helpers are Troggles that eat numbers or expressions and leave nothing in their place. They're kind of nice to have around because they help the Fraction Muncher in its number-gobbling task, but they can still be nasty if they catch up with a Muncher.

Workers are Troggles that hate to see empty cells. When they find one, they put a number or expression in it!



HELPER
(*Trogglus assistus*)



WORKER
(*Trogglus laborus*)

Bashfuls are shy Troggles. If they get close to a Muncher, they tend to move away from it.

Watch out for **Smarties**! They're Troggles that know where the Fraction Muncher is and will try to follow it and hunt it down.



BASHFUL
(*Trogglus timidus*)



SMARTIE
(*Trogglus smarticus*)

Controlling the Fraction Muncher

Keyboard: The following keys may be used to control the direction of the Fraction Muncher's movement. (Note: The ↑ and ↓ Keys are not available on the Apple II or Apple II Plus.)

| Key | | Direction |
|-----|-----|-----------|
| ↑ | I A | Up |
| ↓ | M Z | Down |
| → | K | Right |
| ← | J | Left |

Once the Muncher is in a cell that contains a target number or expression, press the Space Bar (or the ⌘ or ⌘ Key) to make the Fraction Muncher eat the target.

Press the ? Key to call "time out" and freeze the game. Points will be deducted from your score each time you do this. To start playing again, you may press the ? Key again. (You may also press an Arrow Key, the Space Bar, or an Apple Key, or move the joystick.)

Joystick: If your computer is equipped with a joystick, you may use it to play **Fraction Munchers**. Simply move the joystick in the direction you want the Muncher to move and press the fire button to make it eat a number or expression. **Fraction Munchers** is not designed to be controlled by game paddles or a graphics tablet.

A special note to Apple IIGS owners: Use the control panel to set the system speed to "normal" while you are first learning to use **Fraction Munchers**.

Safe Zones

Safe zones are special cells that Munchers can enter but Troggles cannot. They are indicated by small markers in each corner of the cell. Use them to escape a Troggle or as a place to rest temporarily while you look for the next number or expression to munch. Be careful, however, because a safe zone can turn back into a regular cell without warning.

Scoring

Points are earned whenever the Fraction Muncher eats a correct number or expression. The value of the number or expression is dependent upon the level of the game:

| Level | Fraction Value | Level | Fraction Value |
|-------|----------------|-------|----------------|
| 1-3 | 5 | 9 | 35 |
| 4 | 10 | 10 | 40 |
| 5 | 15 | 11 | 45 |
| 6 | 20 | 12-18 | 50 |
| 7 | 25 | 19+ | 75 |
| 8 | 30 | | |

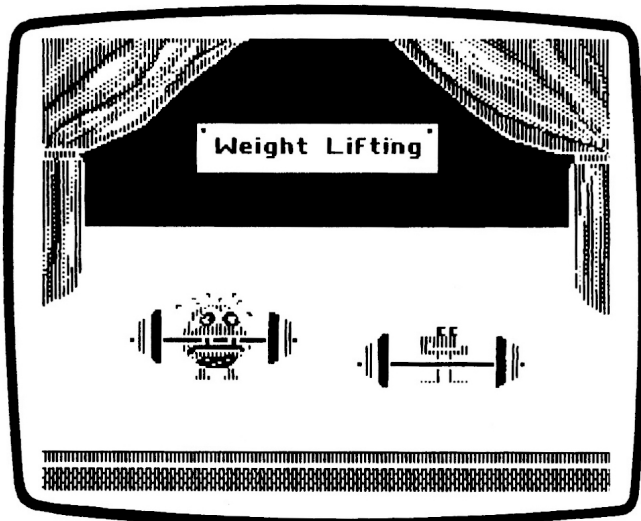
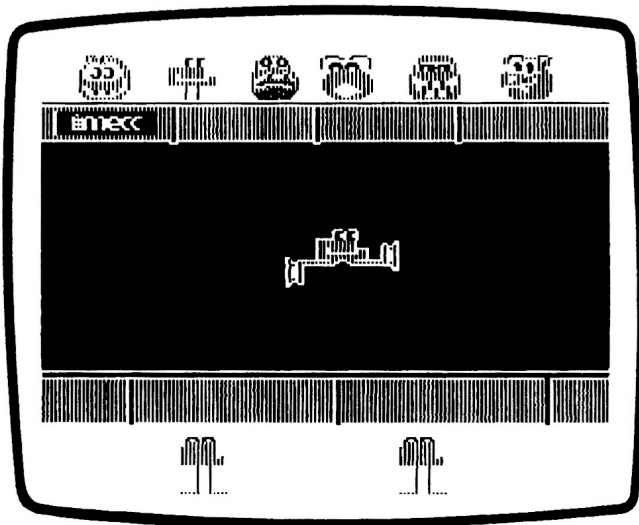
Levels of Play

When a game screen has been cleared of all the targets, the screen is erased and a new level of play is begun. The current level of play is indicated in the box in the upper left corner of the screen.

Each level of play is more difficult than the preceding one. As play progresses, you will find that the number, variety, and speed of the Troggles on the screen increase and that the number and duration of safe zones decrease.

Muncher "Cartoons"

After you have successfully cleared three game screens in a row, you will be able to watch the Fraction Muncher and a Troggle in a brief "cartoon." This is your reward for helping the Muncher eat the right targets!



Sound

Should you wish to use Fraction Munchers without its sound effects, you may do so by typing Control-S whenever the computer is waiting for a response. To type Control-S, hold down the Control Key while simultaneously pressing the S Key.

Escape Key

If you wish to stop playing before all of your Fraction Munchers are gone, press the Escape (Esc) Key whenever the computer is waiting for a response. You will be allowed to return to the main menu or return to the game.

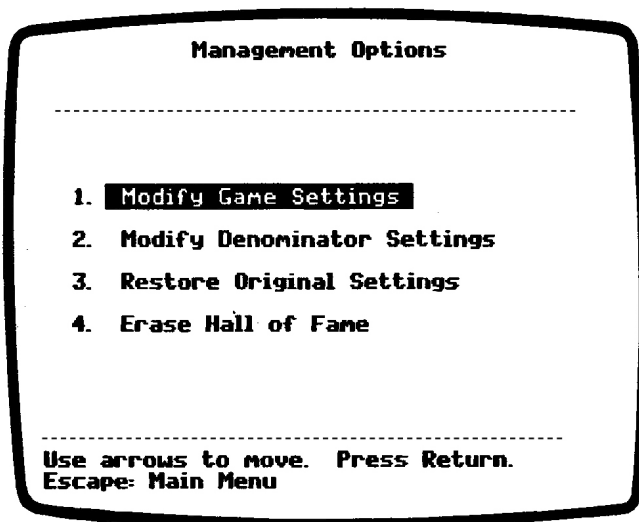
Hall of Fame

Fraction Munchers maintains a list of the ten highest scores and the names of the players who got them. If your score is higher than the lowest score on the list, you will have a chance to add your name to the list.

You can view the "Hall of Fame" list by choosing "Hall of Fame" from the main menu.

Using the Management Options

Management Options allow you to determine which games children may play and to make adjustments to the educational content of each game. You may also restore the original game setting and erase the Hall of Fame list. To access the Management Options, press Control-A (hold down the Control Key and press the letter A) when the main menu is displayed.



Management Options menu

Modify Game Settings. Choose Option 1 to check or modify the current game settings. To modify a setting, use the Arrow Keys to highlight the setting you wish to modify and press Return. The "On/Off" column indicates whether the child will be allowed to play a particular game. Pressing the Return Key when an item in the "Other Settings" column is highlighted will display a list of options available for that game. Options that are checked will be used (the Space Bar controls checking).

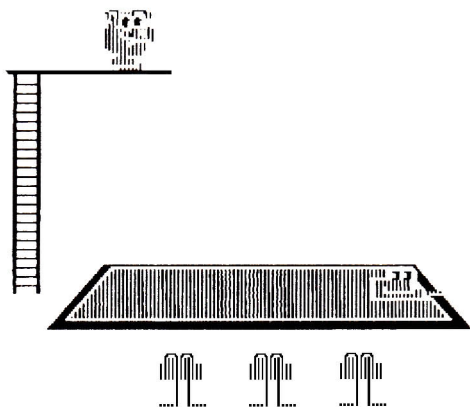
Modify Denominator Settings. Choose Option 2 to select the denominators that will be used as key values and for generating fractions in the various games.

Restore Original Settings. Select Option 3 to return all of the game and denominator options to their original settings. Note that when you do so any special settings you may have made will be lost.

Erase Hall of Fame. A Hall of Fame list is maintained for each **Fraction Munchers** game. Choose Option 4 to erase a list or all of the lists of names. Once a list is erased, it cannot be recovered.

Rewards of Fraction Munchers

After having successfully used **Fraction Munchers**, children will be able to identify proper and improper fractions, mixed and whole numbers, and the numerator and denominator in fractions. Children will also be able to determine if a fraction is reduced to its lowest terms, identify equivalent fractions, compare the size of fractions, and evaluate simple expressions involving fractions. **Fraction Munchers** is a game that children can continue to enjoy long after they have mastered its educational content.



You're sure to enjoy other learning products from MECC, including **Jenny's Journeys**, **The Market Place**, **Mind Puzzles**, **Number Munchers**, **The Oregon Trail**, **Word Munchers**, and **Zoyon Patrol**.

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