**DLM**

# Dragon Mix

## Educational Software

# USER'S GUIDE

# Dragon
# Mix

## INTRODUCTION

ARCADEMIC SKILL BUILDERS IN MATH make learning fun! Children are encouraged to practice basic math skills while playing an exciting, fast-paced arcade game. Frequent practice encourages your child to implement strategies that can help improve his or her performance while the stimulating arcade game environment emphasizes mastery of basic math skills.

In *Dragon Mix,* your child practices basic multiplication and division facts as he or she helps a friendly, fiery-tongued dragon defend a city from attacking alien ships. Ships containing multiplication or division problems advance upon a city guarded by the dragon. The answer to one of the problems appears on the dragon. When the tongue of the dragon points to the problem that matches the answer, your child helps the dragon shoot fire to destroy the alien ship. Quick reactions, focused attention, and game strategy enable your child to help the dragon protect the city—and master basic multiplication and division facts!

Play the game yourself to become familiar with its operation and to demonstrate your involvement with your child's learning. You may find yourself actually testing your own math skills—trying to get more and more hits, fewer and fewer misses, at increasingly faster speeds. *Dragon Mix* will provide hours of exciting fun as you and your child try to break your own individual records.

## GAME STRATEGY

Attacking alien ships advance upon a city which is defended by a friendly dragon. The point of the game is to disintegrate the alien ship containing a math problem that matches the answer appearing on the dragon. If the correct ship is chosen, a "hit" is recorded on the road to the city at the bottom of the screen and a new alien ship and problem begin the attack. If the fire from the dragon's tongue hits the wrong ship, a "miss" is recorded and the alien ship accelerates its advance. If an alien ship gets too close and destroys one of the city's buildings three times in any one game, the game is considered over. Encourage your child to use multiplication and division skills and game strategy to help the dragon effectively defend the city.

## GETTING STARTED

You will need a computer with a disk drive system with which your software is compatible. ARCADEMIC SKILL BUILDERS IN MATH are available for Apple II+ or IIe, IBM PC, Commodore 64, and Atari 400/800/1200. You will also need a monitor or TV that is properly attached to your computer system.

### Loading Dragon Mix
1. If you are using a TV as a monitor, turn down the volume.
2. Place the diskette in the drive, label up, and completely close the door on the disk drive.
3. Turn on the computer and monitor. The program will load if your computer has autostart. If your machine does not have autostart, type in the code or press the appropriate key to engage the disk drive.

   **Note:** IBM PC users will need to load a disk operating system off of the System Master (using the INSTALL routine) onto the *Dragon Mix* diskette.

   Apple users without autostart systems will need to insert the *Dragon Mix* diskette into the disk drive, turn on the computer, type **PR#6,** and press **RETURN.**

   Commodore 64 users should turn on the disk drive before inserting diskette. Type **LOAD "*",8** and press **RETURN.** Then type **RUN** and press **RETURN.**
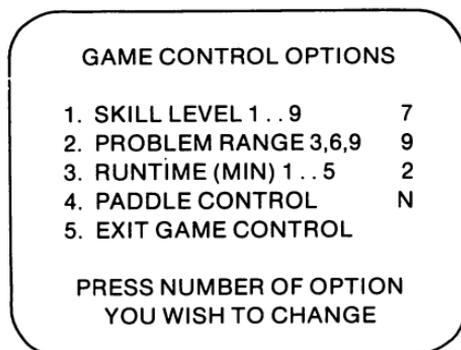
4. The TV or monitor displays three screens before play begins. First, the title screen appears and is followed by the copyright screen. Adjust picture sharpness on your TV or monitor.

Next, the PRESS ANY KEY TO PLAY screen appears. Adjust the color on your TV or monitor. Press any key to immediately begin game play. If you wish to change set options for the game, press **CTRL P** at this time.

```
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```
PRESS ANY KEY
TO PLAY

# SELECTING OPTIONS FOR
# DRAGON MIX

From the PRESS ANY KEY TO PLAY screen, you may press **CTRL P** to view or change game options. You can determine the difficulty and length of the game and choose paddles or keyboard play at this time. Preset options for *Dragon Mix* appear on the OPTIONS screen.

```
        GAME CONTROL OPTIONS

    1. SKILL LEVEL 1 . . 9          7
    2. PROBLEM RANGE 3,6,9          9
    3. RUNTIME (MIN) 1 . . 5        2
    4. PADDLE CONTROL              N
    5. EXIT GAME CONTROL

       PRESS NUMBER OF OPTION
         YOU WISH TO CHANGE
```

## Using the OPTIONS Screen

To change preset options, press the **CTRL** key and the **P** key simultaneously from the PRESS ANY KEY TO PLAY screen.

Options on the screen enable you to tailor *Dragon Mix* to meet individual needs. Nine skill levels control the speed of the game,

three ranges of problem difficulty enhance usability and mastery, and five options enable you to control the length of each game.

1. SKILL LEVEL: controls the speed of the game; 1 is the slowest, 9 is the fastest.
2. PROBLEM RANGE: controls the numbers used in the problems— 3 = problems made up of numbers 0-3; 6 = problems from 0-6; and 9 = problems 0-9.
3. RUNTIME: controls the duration of each game; games may run from 1 to 5 minutes in length.
4. PADDLE CONTROL: specifies the use of paddles or keyboard. Press **Y** for yes if you are using paddles. Press **N** for no if you are using the keyboard.
5. EXIT GAME CONTROL: begins the game after options have been selected.

### Modifying Options

To change options, type the number (on the left) that indicates the option you wish to change. The flashing cursor appears at the level currently programmed for that option. Type the level you desire for that option. Repeat this procedure to change as many options as you would like.

When all selections are made, press **5** to EXIT GAME CON-TROL. The screen automatically displays PRESS ANY KEY TO PLAY. Your child is ready to begin game play.

## PLAYING THE GAME

*Dragon Mix* may be played using either the keyboard of your computer or game paddles.

### Using the Keyboard

When using the keyboard option, your child finds the alien ship containing the problem that matches the answer on the dragon. When the dragon's tongue aims at the correct ship and problem, your child shoots fire from the dragon's tongue to destroy the advancing alien ship. Several keys will shoot fire from the dragon's mouth. Specific keys used are listed below.

| KEY | ACTION |
|---|---|
| **Spacebar** | shoots fire at approaching ship |
| **W, I** | shoots fire at approaching ship |
| **T** | terminates game play |

***Using Game Paddles***

If you wish to play with paddles, you must change option number 4 on the OPTIONS screen. Choose option **4** and press **Y** (yes) to use paddles. Then, press **5** to exit game control and begin the game.

In the paddle option, your child matches the answer with its corresponding problem, waits until the dragon's tongue aims at the problem, and fires using the button on the paddle. When the alien ship is destroyed, the answer on the dragon automatically changes and other alien ships and problems begin attacking.

## RECORDING SCORES

Your computer tallies the scores for completed games throughout the entire playing period. At the end of each game, the screen displays the number of "hits" and "misses" for the most recent (CURRENT) game. The lowest (LOW) score recorded during the practice session and the highest (HIGH) score attained during the session are also shown.

```
RECORD YOUR SCORE

          CURRENT LOW HIGH

HITS         0       0    0

MISSES       0       0    0
```

These scores reflect your child's performance at the game levels chosen. They can be used to chart progress or to determine whether the current game levels are too easy or too difficult for your child.

Scores continue to be recorded, even if the game options are changed, until the computer is turned off or the **RESET** (Apple), **RESTART** (Atari), **RESTORE** (Commodore), or **Ctrl/Alt/Del** (IBM) key is pressed. If either occurs, all scores are erased and the game control options return to those originally programmed on the diskette.

## ENDING DRAGON MIX

You can stop game play at any time by typing **T**. Games also end when the allotted time expires, or if alien ships destroy part of the city three times in any one game. When a game ends, your child's scores are automatically displayed on the screen.

## TROUBLE SHOOTING

ARCADEMIC SKILL BUILDERS IN MATH are fun and easy to use. However, should you experience problems, try these simple solutions.

- If the program does not load when the computer is turned on, consult the reference manual for the machine you are using. If your machine is not equipped with autostart, you may need to type in a code or press a special key to load the program.
- If the monitor continues to display a blank screen when loading the program, check all connections, especially input to the monitor, and make sure the monitor is turned on.
- If the program freezes on the screen, type **T**. Scores appear, and pressing any key will start a new game.
- If you have an autostart system and the **RESET** (Apple), **RESTART** (Atari), **RESTORE** (Commodore), or **Ctrl/Alt/Del** (IBM) key is pressed, the program automatically reloads. Scores are erased and game options return to those originally programmed on the diskette.
- If the computer is shut off during play, reload the program when the computer is turned on again. Scores are erased and game options return to those originally programmed on the diskette.

# Using Arcademic
# Skill Builders

## ARCADEMIC SKILL BUILDERS
## AND YOUR CHILD

ARCADEMIC SKILL BUILDERS IN MATH can make learning fun for your child. You can help make the most of this learning experience.

### Interacting with Your Child

Make sure your child enjoys playing the game and feels good about his or her ability to succeed with math problems. The following suggestions can help contribute to a positive experience:
- Express interest in improvement in positive ways.
- Communicate the value you place on the task.
- Make positive statements regarding improvement and ability.
- Help your child feel competent and confident.
- Encourage your child if he or she becomes frustrated.

### Setting Goals

It is important to set goals for the number of hits (corrects) and misses (errors) because both of these are central to progress. Work with your child to set final score goals that are just beyond his or her reach. As the child progresses, advance goals accordingly.

The following guidelines are provided to help you establish the ultimate objectives of speed and accuracy.

SET SPECIFIC GOALS. Playing toward a goal will reflect the level of mastery and the quickness of reactions. Use scores from practice games to set goals. Generally, players of average ability should have goals of at least forty hits or less than five misses for a two-minute game at a given level.

USE INTERMEDIATE GOALS. Make sure goals are reasonable. If original goals seem beyond your child's ability, use intermediate goals that progress with your child's ability until final goals are met.

BE CONSISTENT. It is important to be consistent with length of game, goal setting, and score recording. For example, relate the length of game play to the level of goals. If you change the game run-time, alter the goal accordingly. In addition, consistently recording your child's best score enables you to compare progress.

### Frequency and Duration of Play
To get maximum improvement, consider how often the game should be played and the length of individual sessions.

FREQUENCY. Allow your child to play on a regular, frequent basis for maximum improvement. Field testing results suggest that a daily schedule of two or more short periods yields the greatest success.

SESSION LENGTH. Your judgment about session length should consider the attitude and desire of your child. Depending upon age and interest level, a range of ten to forty-five minutes per session is reasonable. In general, sessions should be frequent but short.

## ADVANCING THROUGH
## GAME LEVELS
A player's progress is controlled through the three major game options: content level, game speed, and game length. Levels of achievement are determined by the content level of the problems (using numbers 0-3, 0-6, or 0-9); the speed at which the game is played (1 is the slowest and 9 is the fastest); and the number of minutes a game is played.

### Starting
Select options according to your child's competency with math facts. If your child
- has little knowledge of math facts, start with numbers 0-3 at a very slow speed;
- has some knowledge, frequent mistakes, slow speed, start at content and speed levels so that misses (errors) are higher than hits (corrects);

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- has much knowledge of math facts, start at higher content and speed levels that cause misses. This focuses attention on reaction speed as the math facts become more ingrained.

Remember, misses in arcade games are viewed as opportunities to improve skills. Select levels that provide enough challenge to encourage your child to improve speed and accuracy.

### *Advancing*

Advancing at a given content level can be done by keeping the same goals and increasing speed, or by setting higher goals at the same speed. Whatever you decide, the importance of the number of hits is always relative to the number of misses.

Determine if it is better for your child to work on only one content level at a time and master increasing speeds, or to work on all three content levels and speeds simultaneously.

Encouraging your child to play rapidly and accurately helps develop excellent permanent skills. To help ensure skill permanency, set final goals for at least a speed of 7, since field tests indicate that players meeting these goals have mastered the facts. Speed levels 8 and 9 provide highly motivational practice and reinforcement for students who have mastered basic math facts.

# HELPING YOUR CHILD IMPROVE

Playing the game often encourages improvement. Keeping records, motivating reluctant players, and observing your child's progress can also increase improvement.

### *Keeping a Record*

Create a graph of the best daily scores by placing a dot (.) at the appropriate number of hits on a given day. Record misses with an X at the appropriate number. Connect hit scores and misses scores with lines to note trends. A sample graph is shown on the next page. On the last page of the manual is a graph you may use with your child.

### *Motivating Reluctant Players*

ARCADEMIC games provide motivational learning experiences for most players. If your child has experienced math difficulties, he or she may be reluctant to play. If this is the case, you might offer concrete rewards (more computer time, a toy, a favorite food or activity, etc.) for improvement over earlier scores or for meeting goals. Choose a reward that is most appropriate for your child.

## Sample Record

CALENDAR DAYS
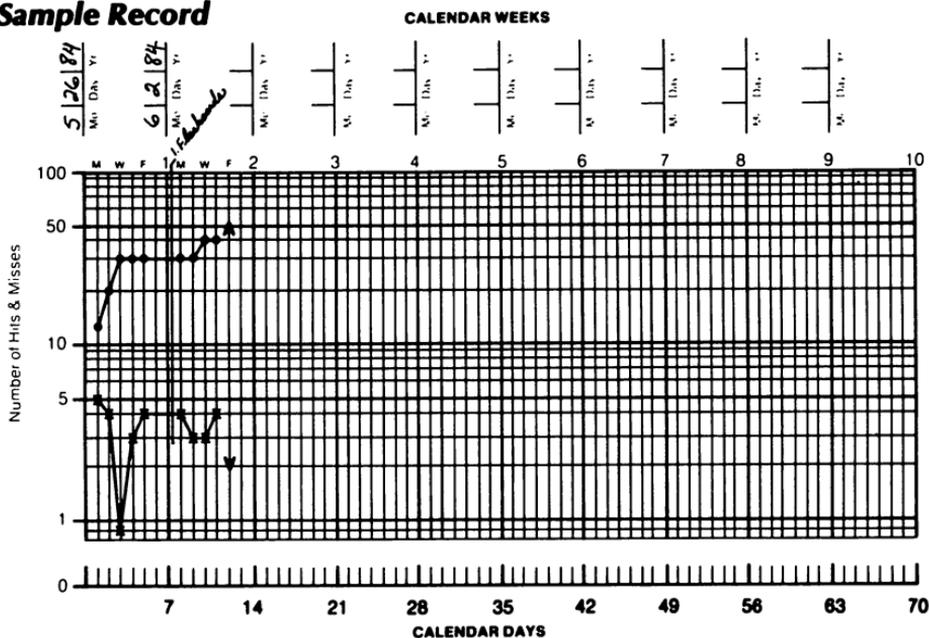
***Observing Progress***

If progress slows, observe your child to determine the cause of the misses. Poor strategy, failure to understand the game, repeated errors on one or several facts, and difficulty with game controls may inhibit progress. Once you have identified the specific problem, provide direct assistance to correct it.

## ADAPTING USES

ARCADEMIC games are very versatile! Use your game
- with players of widely varying abilities and interests;
- with two or more players taking turns and comparing scores;
- with "tournaments" held over a period of days or weeks using scores and graphs to determine winners.

Be sure to make the best possible use of your ARCADEMIC game. Help your child transfer his or her knowledge of basic math facts to everyday situations. You may want to purchase other ARCADEMIC SKILL BUILDERS IN MATH games to help increase your child's abilities with other types of math facts.
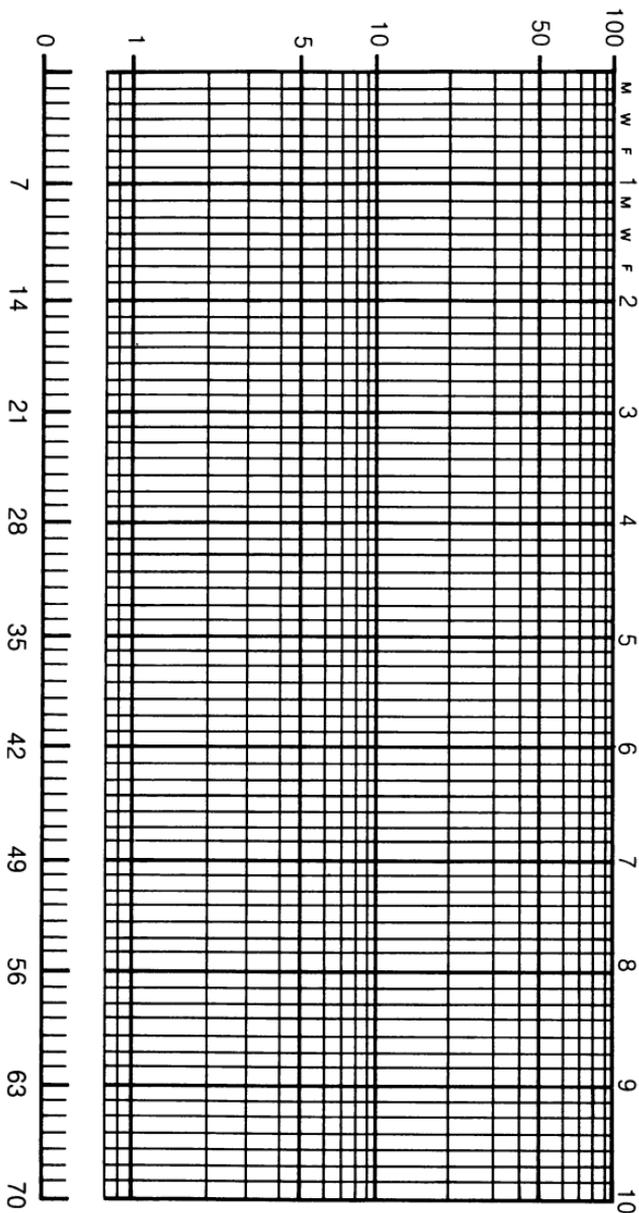
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KEY: • Hits
X Misses

CALENDAR WEEKS

Number of Hits & Misses

CALENDAR DAYS

Mo  Day  Yr

Mo  Day  Yr

Mo  Day  Yr

Mo  Day  Yr

Mo  Day  Yr

Mo  Day  Yr

Mo  Day  Yr

Mo  Day  Yr

Mo  Day  Yr

## LIMITED WARRANTY

Developmental Learning Materials warrants this software product against defects in materials or construction for a period of six months. If, during that time, you cannot properly load or run the program, you may return it to DLM for a free replacement. Write DLM Customer Service, One DLM Park, Allen, Texas 75002.

This limited warranty does not apply if the product has been damaged by accident, abuse, or modification.

### *Back-up and Replacement Copies*

You may purchase back-up copies or replacements for worn or damaged diskettes for $25.00 per copy. Write DLM Customer Service, One DLM Park, Allen, Texas 75002.