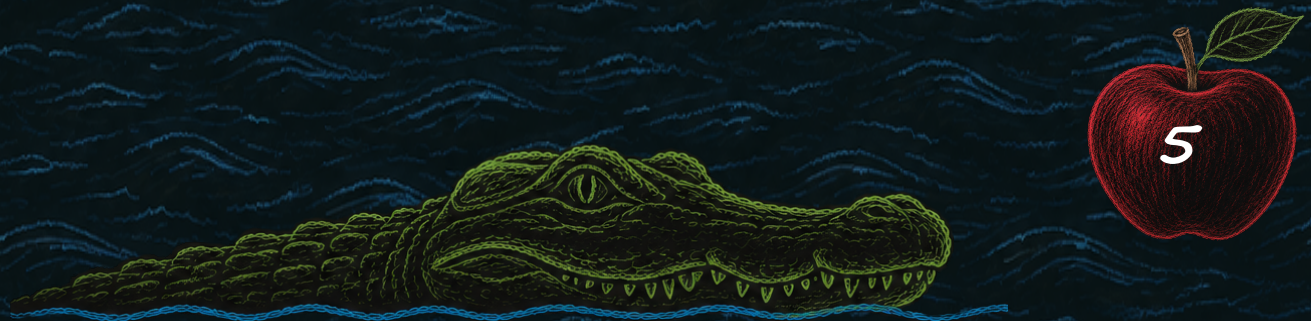


# Alligator Math

PLAYER AND EDUCATOR MANUAL | VERSION 2.0

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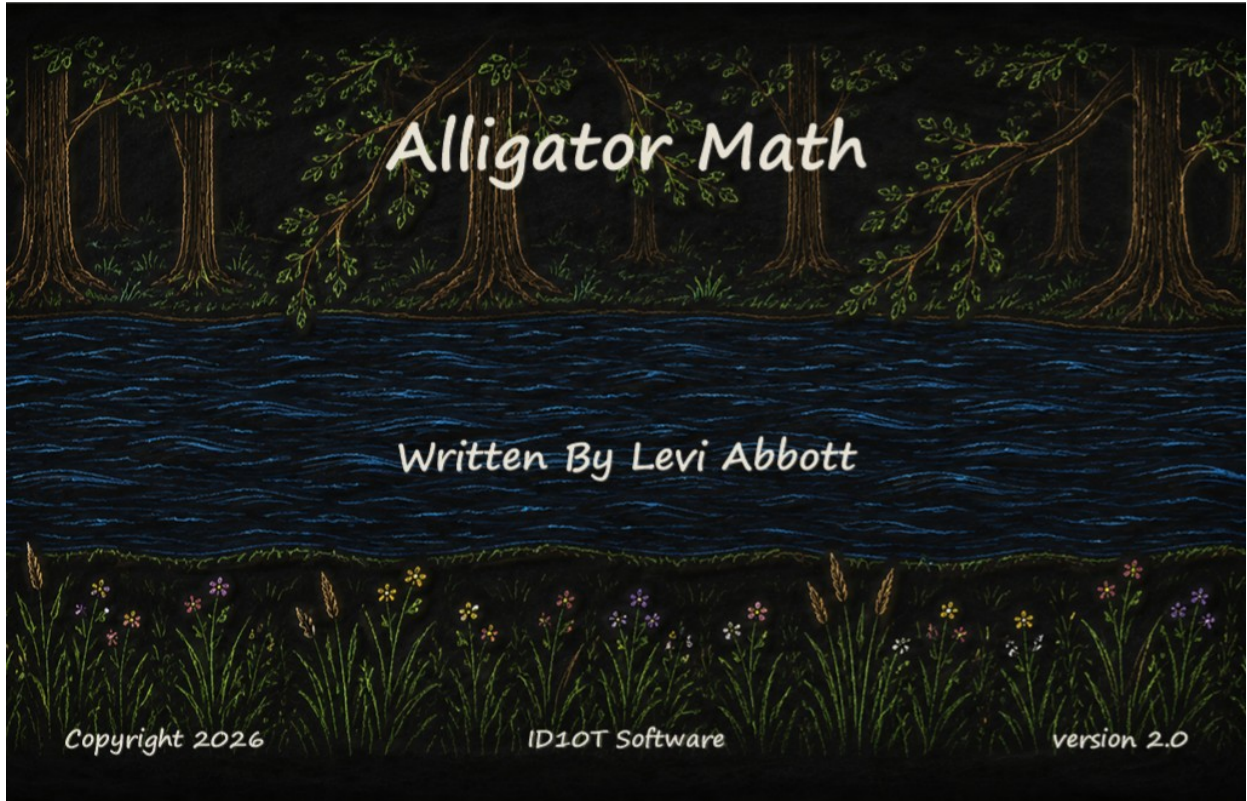


## *A hungry friend in the moonlit marsh...*

Deep in the dark, chalk-drawn swamp lives a friendly alligator with a very unusual appetite. His favorite treats are bright red apples - but he only wants the apples that solve his math problems! Read each equation, watch the river, and help him choose wisely. With every good decision, the swamp sparkles, the numbers grow, and your new friend gets one crunchy bite closer to a full belly.

# Ready, set, chomp!

Alligator Math is a focused addition-and-subtraction practice game. Solve the equation near the alligator, then decide whether the approaching apple belongs on the menu.



The title screen

## Controls



Open or close the mouth



Left-click also opens or closes



Quit



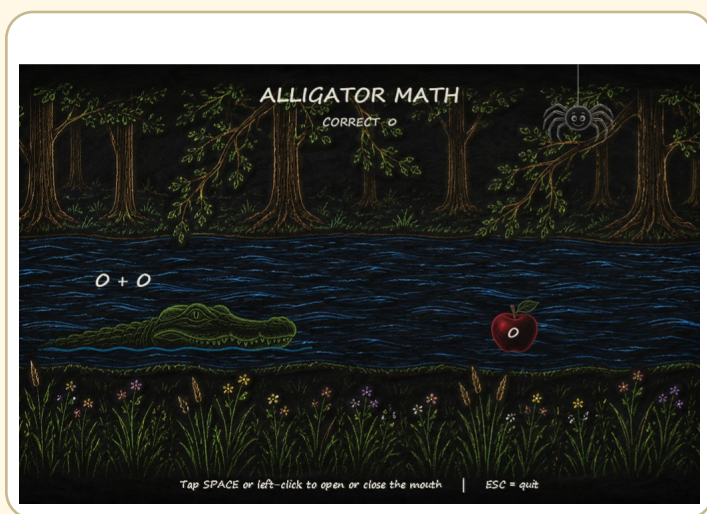
One-time options

### Start a round

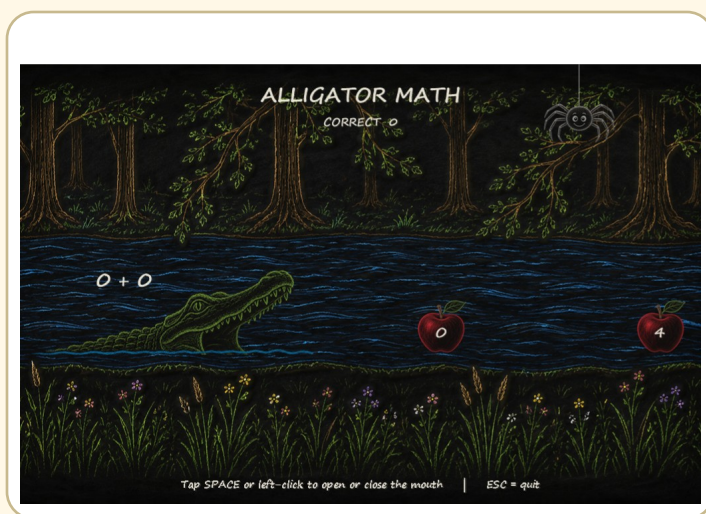
1. Launch AlligatorMath.exe.
2. After the title screen, press any key or left-click.
3. Press any key or left-click again to play - or press O once for options.

## One equation. Moving choices.

The equation stays in place until the correct apple is eaten. The correct answer appears at least once in every three apples, and the same number never appears on two consecutive apples.

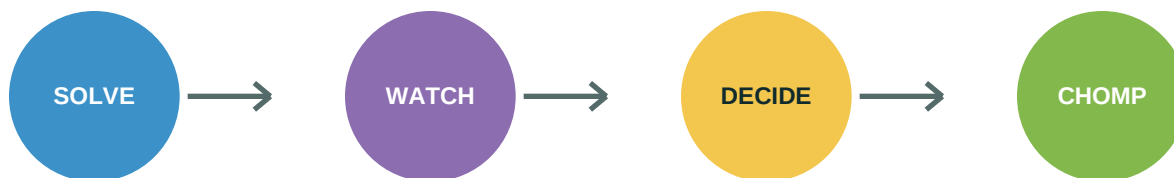


Mouth closed: let a wrong answer pass



Mouth open: eat the matching answer

### The decision loop



Correct bite: crunch, mouth closes, positive feedback, new equation.

Wrong bite: a brief two-tone cue, then another opportunity.

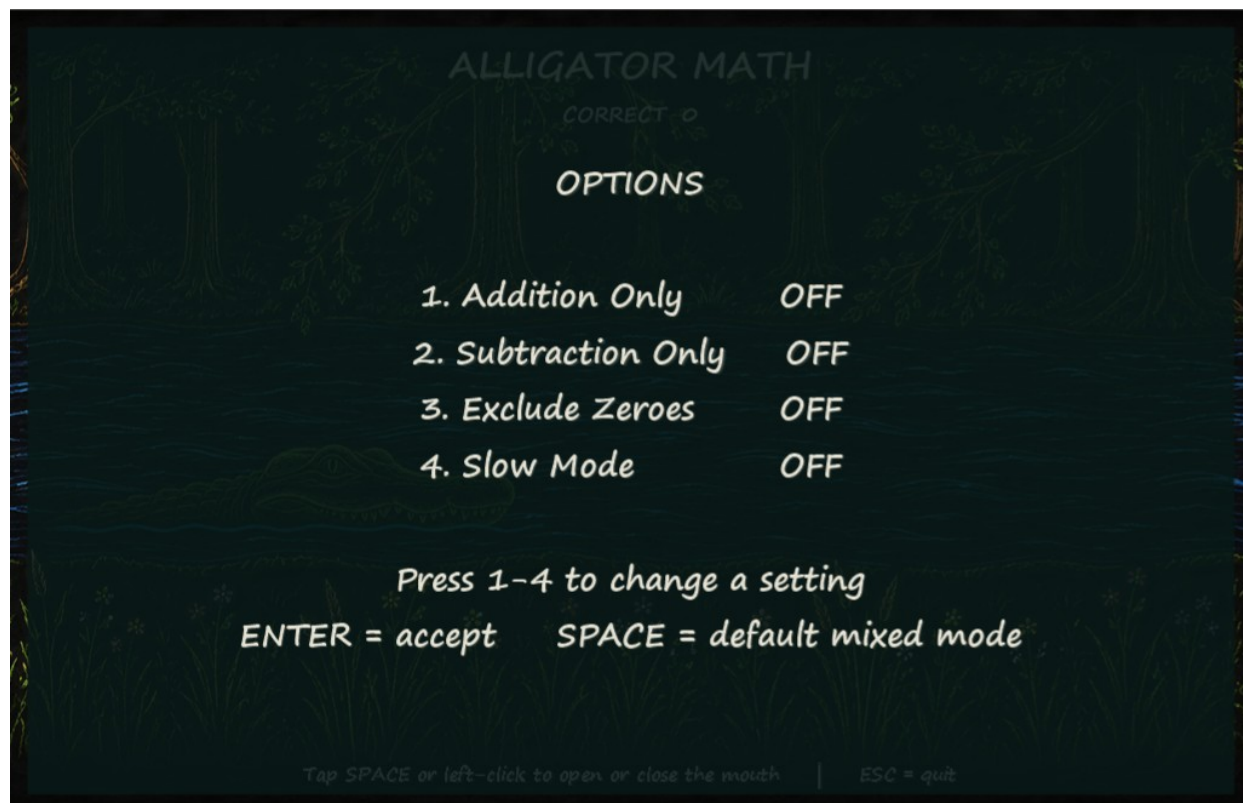
### Tip for young mathematicians

Say the answer aloud before the apple reaches the alligator. If you need more thinking time, close the mouth and wait for the next matching apple.

# Optional Session Settings

## Choose once, then play

Press O on the directions screen immediately after the splash screen. The menu is available only before the first round, and its choices remain active until the game is closed.



All settings begin OFF

- |   |                         |                                                        |
|---|-------------------------|--------------------------------------------------------|
| 1 | <b>Addition Only</b>    | Generates addition equations only.                     |
| 2 | <b>Subtraction Only</b> | Generates subtraction equations only.                  |
| 3 | <b>Exclude Zeroes</b>   | Removes zero operands, answers, and distractor apples. |
| 4 | <b>Slow Mode</b>        | 15% slower fixed speed; strict four-minute round.      |

**ENTER**

Accept displayed settings

**SPACE**

Start default mixed mode

## Math practice beyond the screen

Alligator Math includes a quiet worksheet generator for educators and families who want familiar, themed practice away from the computer.

The worksheet generator screen

### Open the generator

While the opening splash screen is visible, press W. The shortcut is not printed on the splash screen, keeping the child-facing introduction uncluttered.

### Choose what you need

- **Quantity** 10, 15, 20, 25, or 30 problems.
- **Answer key** At the bottom, or on a separate page.
- **Generate** Choose a filename and save the PDF.

### The same math progression as the game

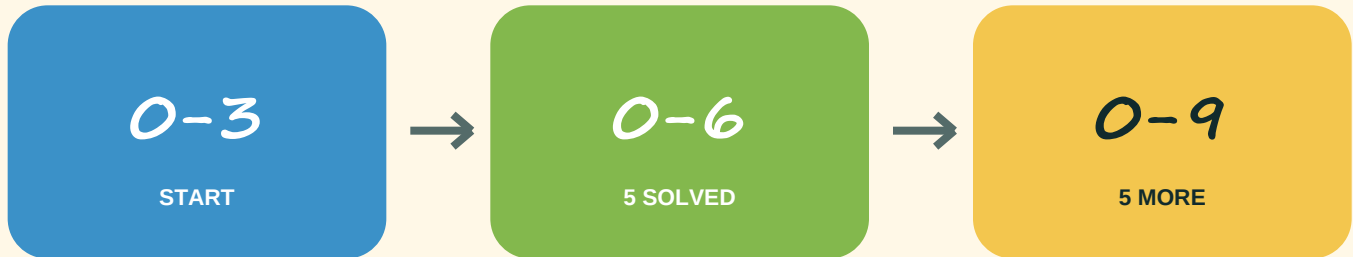
Problems 1-10 use numbers from 0-3, problems 11-20 use 0-6, and problems 21-30 use 0-9. Worksheets mix addition with nonnegative subtraction, so every equation follows the rules used during normal Alligator Math play.

### A printable result

US Letter, 300 DPI PDF

## Small numbers first

Alligator Math begins with compact number ranges and expands them after successful practice. The rules stay familiar while the arithmetic grows.



### The spider is the timer



It descends toward the river as the round advances. When it reaches its destination, the round ends.

### A star marks progress



In standard mode, the spider rises for ten seconds and the timer begins again at the top.

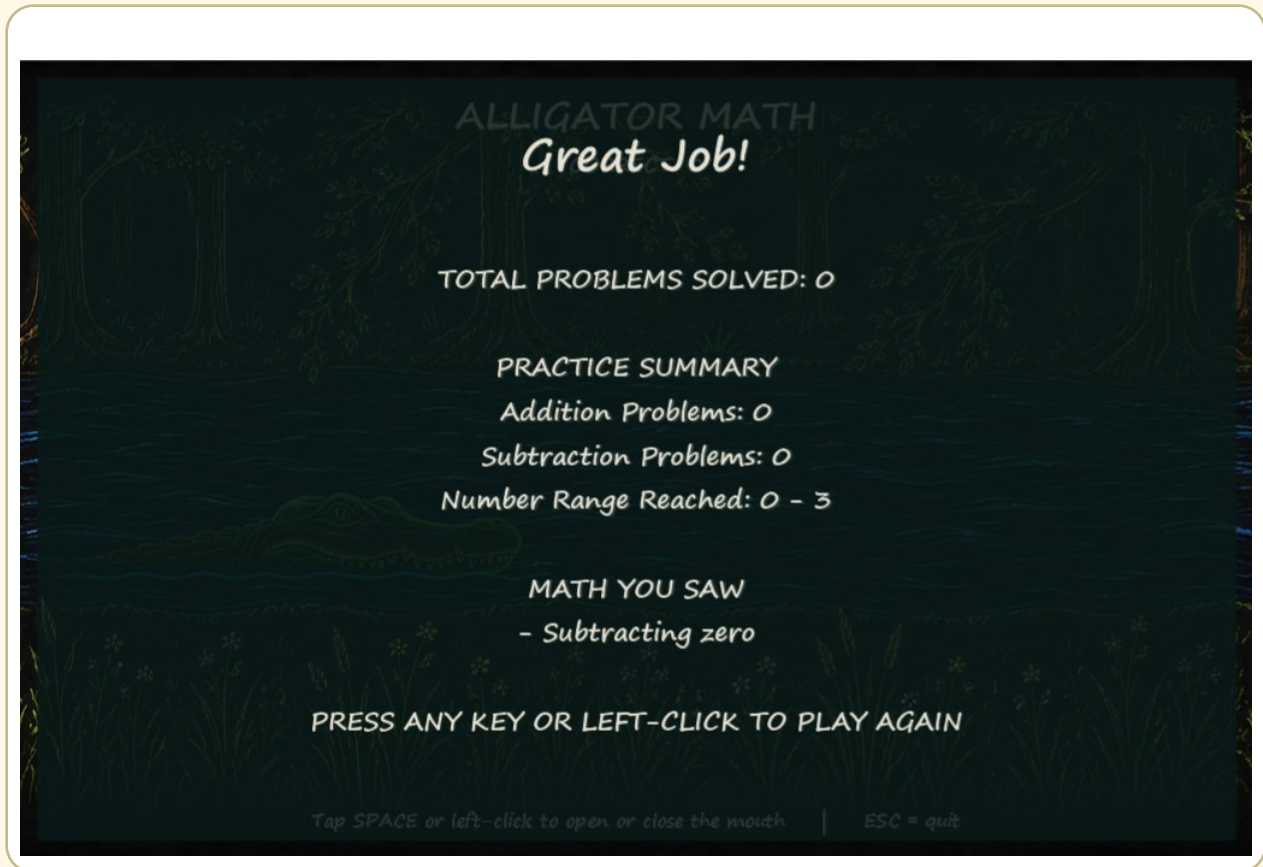
## Slow Mode

- Apple travel is 15% slower than the normal starting speed.
- Travel speed does not increase as the player progresses.
- The round lasts four minutes on a strict wall-clock timer.
- Stars still celebrate progress, but they do not pause or reset time.

# Your Practice Summary

## Finish with encouragement

Each round ends with one positive message, a count of solved problems, and a brief picture of the arithmetic encountered. The message and up to three Math You Saw topics are selected once when the summary opens.



A real end-of-round summary

### What the summary means

- Problems Solved counts correct apples eaten.
- Addition and subtraction totals count solved equations by operation.
- Number Range Reached reports the widest range opened during the round.
- Math You Saw reports presented ideas - it is not a mastery judgment.

### Counters reset; session options stay

Starting another round clears scores, equation history, and summary topics. Any options chosen before the first round remain active until the program exits.

## Practice with purpose

Alligator Math turns a short set of symbolic arithmetic decisions into a lively game. Its purpose is focused practice - not prolonged engagement, diagnosis, or a judgment about mathematical worth.

### Joyful and strengths-based

Movement, sound, and an inviting setting make useful repetition feel playful. A score describes one session; it does not label ability, effort, or potential.

### Progressive challenge

Small number ranges reduce unnecessary load. New ranges appear after successful practice without changing the basic decision rule.

### Immediate, neutral feedback

Correct decisions receive clear celebration. Errors receive a brief cue and another opportunity. The intended message is: try the next problem.

### Fluency with understanding

Recall matters, but it is not all of mathematics. Pair the game with objects, drawings, stories, explanation, and everyday problem solving.

Educational framing informed by IES early-mathematics guidance and NAEYC developmentally appropriate practice.

## Make the thinking visible

A caring adult, sibling, classmate, or peer can turn a quick round into a richer mathematical conversation. Ask with curiosity, allow wait time, and follow the learner's strategy.

### Questions worth asking

- ? How did you figure that one out?
- ? Can you show it with fingers, blocks, or a drawing?
- ? What does the plus or minus sign tell us to do?
- ? Is there another way to make the same answer?
- ? What do you notice when we add or subtract zero?

### After the screen

- Build one equation with small objects.
- Tell a number story about an apple group.
- Draw two different ways to make five or ten.
- Find a turnaround or fact family together.

### Notice strategies

A learner might count every object, count on from the larger number, use fingers, recall a known fact, or reason from another equation. Each strategy offers useful information about current understanding.

**Celebrate the strategy, not speed.**

# Every learner is different

Children vary in prior experience, language, motor access, vision, hearing, attention, and comfort with timed movement. Developmentally appropriate use responds to the individual child and their family and cultural context.

1

### Offer another path

If the graphics, sounds, controls, or moving format are not comfortable or accessible, explore the same arithmetic with spoken choices, objects, cards, or drawings.

2

### Treat time as a game mechanic

The descending spider and changing speed are not measures of intelligence. Use Slow Mode, collaborate, stop after a manageable round, or choose an untimed activity.

3

### Keep technology bounded

One thoughtful round can be enough. Balance digital practice with movement, conversation, books, creative play, outdoor time, and hands-on exploration.

4

### Do not diagnose from a score

The game is not a standardized or diagnostic assessment. It cannot establish mastery, identify a disability, predict performance, or replace qualified educational judgment.

*A successful session does not need to be a long session.*

Stop while the experience still feels constructive, connected, and enjoyable.

## A new game with an old spark

Alligator Math is independently developed and inspired by Alligator Mix, an educational cartridge released for the TI-99/4A in 1983. The original paired a moving problem with an answer on the alligator. This version reverses that arrangement, modernizes the controls and feedback, and uses current educational language.

### Technical notes

- Native 64-bit Windows application designed for Windows 11.
- Artwork, music, and sound effects are embedded in the executable.
- Resizable or maximized window with graphics and speed scaling.
- Background music: an arrangement of Johann Strauss II's By the Beautiful Blue Danube.

## Sources and further reading

### Historical gameplay reference

[https://www.4apedia.com/index.php/Alligator\\_Mix](https://www.4apedia.com/index.php/Alligator_Mix)

### IES: Teaching Math to Young Children

<https://ies.ed.gov/ncee/wwc/PracticeGuide/18>

### IES early-math teaching toolkit

<https://ies.ed.gov/ncee/rel/math-young-children>

### NAEYC: Developmentally Appropriate Practice

<https://www.naeyc.org/node/3807>

### NAEYC: Technology and Media

<https://www.naeyc.org/resources/topics/technology-and-media/>

## Alligator Math version 2.0

Written by Levi Abbott | ID10T Software | Copyright 2026

Player and Educator Manual

