



Your Family Code Night “Big Ideas”

The Code.org puzzles you completed include 7 “Big Ideas” in coding for kids – ideas that real programmers use every day! So in your first hour of coding, you learned some Big Ideas!

1. A **Program** is a list of instructions you create to tell a computer what to do.

When you write a program, you create what you see on the screen. If you learn computer science, you can create nearly anything you can imagine (Puzzle 2).

2. A **Repeat Loop** repeats any block or blocks you put inside it, as many times as you say, or until a goal is reached.

Repeat Loops let you write programs faster (Puzzle #6).

3. **Code Efficiency** means using as few blocks as possible to solve the puzzle.

View each puzzle’s Code Efficiency numbers! (all Puzzles).

4. **There are no Mistakes in Coding** – just de-bug to fix it!

If your code doesn’t work right, you just find out why, and fix it – it’s called “debugging or bug-fixing.” Programmers are bug-fixing all the time, it’s part of the fun (all puzzles)!

5. A **Conditional** is an “if-then” statement in your code.

*Conditionals let your code see and react: **if** there is a path forward, **then** move one step forward. You use conditionals all the time: **if** it’s raining, **then** take an umbrella (Puzzle 14)!*

6. An **If-Else** statement lets your code decide things.

*If-Else makes conditionals even smarter: **if** one thing, do this; if not, do something **else** (Puzzle 16)*

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