Name: _____ **Date:** _____

Algorithm Design and Problem Solving Quiz

Master step-by-step logic with this Algorithm Design and Problem Solving Quiz. Students will practice sequencing and decomposing tasks into procedures.

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1. Which of the following best describes the definition of an algorithm in computer science?

A. A list of random numbers used to solve math problems.
B. A specific set of step-by-step instructions to complete a task or solve a problem.
C. The physical parts of a computer like the monitor and keyboard.
D. A computer program that only plays video games.

2. You are designing an algorithm for a robot to brush its teeth. Which step must come BEFORE applying toothpaste to the brush?

A. Rinse the toothbrush with water.
B. Brush the top row of teeth for 60 seconds.
C. Put the toothbrush back in the holder.
D. Remove the cap from the toothpaste tube.

3. When an algorithm repeats a set of instructions until a certain condition is met, what is that concept called?

A. A variable
B. A loop
C. A bug
D. A hardware

4. An engineer is 'debugging' their algorithm. What specifically are they doing?

A. Adding new features to make the program more fun.
B. Deleting the entire program to start over from scratch.
C. Finding and fixing errors in the step-by-step procedure.
D. Sharing the algorithm with friends on the internet.

5. Why is 'decomposition' important when creating an algorithm for a complex problem?

A. It breaks a big problem into smaller, more manageable parts.
B. It makes the computer run the program at a faster speed.
C. It changes the language of the code to a different country's language.
D. It automatically fixes any mistakes you made in the instructions.