Name: _____ **Date:** _____

Answer Key: Tiny Blueprints, Big Towers: Pre-K Steps to Solving Problems

Young learners construction-test their logical thinking by sequencing daily routines and fixing broken patterns through hands-on algorithmic play.

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1. If you want to feed a hungry stuffed bear, which step must you do FIRST?

Answer: B) Find a plate and some play food

To solve the problem of a hungry bear, the first logic step is gathering the materials needed to eat.

2. An 'algorithm' is like a recipe that tells you exactly which step comes next.

Answer: A) True

Algorithms are step-by-step instructions used to complete a task or solve a problem, just like a recipe.

3. You are building a block tower. If you put the roof on before the base, the tower will ___.

Answer: B) Fall down

This demonstrates problem analysis; following steps in the wrong order leads to an unsuccessful outcome.

4. Your pretend robot is stuck in a corner. What is the best way to help it get out?

Answer: B) Give it a new step to 'Turn Around'

When an algorithm fails, we 'debug' it by changing the instructions to find a new path.

5. When we break a big job into tiny pieces, it makes the job harder to do.

Answer: B) False

Decomposition, or breaking a problem into small parts, makes complex tasks much easier to handle.

6. To draw a happy face, first you draw a circle, then two dots for eyes, and lastly a ___.

Answer: C) Smile

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Selecting the final step correctly completes the 'drawing algorithm' for a specific goal.

7. You see a pattern of beads: Red, Blue, Red, Blue. What comes NEXT?

Answer: C) Red

Recognizing and continuing a pattern is a fundamental part of algorithmic thinking and prediction.

8. If you want to plant a flower seed, you need a pot, some soil, and ___.

Answer: A) Water

Identifying the necessary 'inputs' for a process is key to successful problem solving.

9. Which of these is a 'broken' step for putting on shoes?

Answer: C) Put the shoe on over your mitten

Using a mitten instead of a foot is a logical error that prevents the algorithm from working correctly.

10. Following steps in the right order helps us finish a puzzle.

Answer: A) True

Sequence matters in problem solving; doing things in a logical order leads to the correct result.