Name: _____ **Date:** _____

A Robot's Rainy Day: 2nd Grade Algorithm Adventure Quiz

Young coders gain confidence in debugging and sequencing by helping a digital friend navigate complex, multi-step obstacles to stay dry.

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1. Our robot, Rusty, wants to make a peanut butter sandwich. Which step is an example of 'Decomposition' (breaking the big job into smaller parts)?

A. Wishing the sandwich would appear magically.
B. Naming the sandwich 'Rusty's Lunch'.
C. Listing the steps: Get bread, spread jam, then put bread together.
D. Eating the sandwich very quickly.

2. If a robot is stuck in a loop and keeps walking into a wall, the process of finding and fixing that mistake is called _____.

A. Decorating
B. Debugging
C. Dancing
D. Deleting

3. True or False: An algorithm must have steps that are in the correct order to solve a problem effectively.

A. True
B. False

4. You are designing a path for a bee to get to a flower. If there is a spider in the way, what 'Condition' should you add to your algorithm?

A. IF there is an obstacle, THEN fly over it.
B. ALWAYS fly in a straight line no matter what.
C. IF it is sunny, THEN go sleep in the hive.
D. Close the computer and try again tomorrow.

5. When we want a robot to draw a square, we use a _____ to tell it to 'Repeat' the same move 4 times.

A. Slinky
B. Line
C. Loop
D. Knot

6. True or False: There is only ever one single way to write an algorithm to solve a problem.

A. True
B. False

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7. Which of these is the most 'Efficient' algorithm for a robot to pick up 10 toys scattered on the floor?

A. Pick up one toy, walk to the box, walk back. Repeat 10 times.
B. Pick up all toys into a basket, then walk to the box once.
C. Wait for someone else to pick up the toys.
D. Move the toys to a different corner of the room.

8. Before giving your instructions to a robot, you should _____ them yourself to make sure they work.

A. Hide
B. Test
C. Ignore
D. Forget

9. You are writing an algorithm to help a squirrel find a buried nut. If the squirrel finds a rock instead of a nut, what should the next step be?

A. Stop moving and stay there forever.
B. Eat the rock.
C. Go back 2 steps and try digging in a new spot.
D. Go to sleep.

10. True or False: Computers are smart enough to guess what you mean even if your instructions are missing a step.

A. True
B. False