

Computing Assessment: Understanding Algorithms

Learning objective: To understand, create, and debug simple algorithms.

Read each question carefully. Use the word bank to help you. Write your answers clearly in the spaces provided.

Kit the fox is writing a set of instructions for his friends to follow to make a fruit salad. He must make sure every step is in the right order so the fruit salad is perfect.

Word bank: Algorithm · Sequence · Debug · Step · Instruction · Error

1. What is an algorithm? Tick the correct definition:

- ☐ A picture of a fox.
- ☐ A set of instructions to complete a task.
- ☐ A type of computer game. (2 marks)

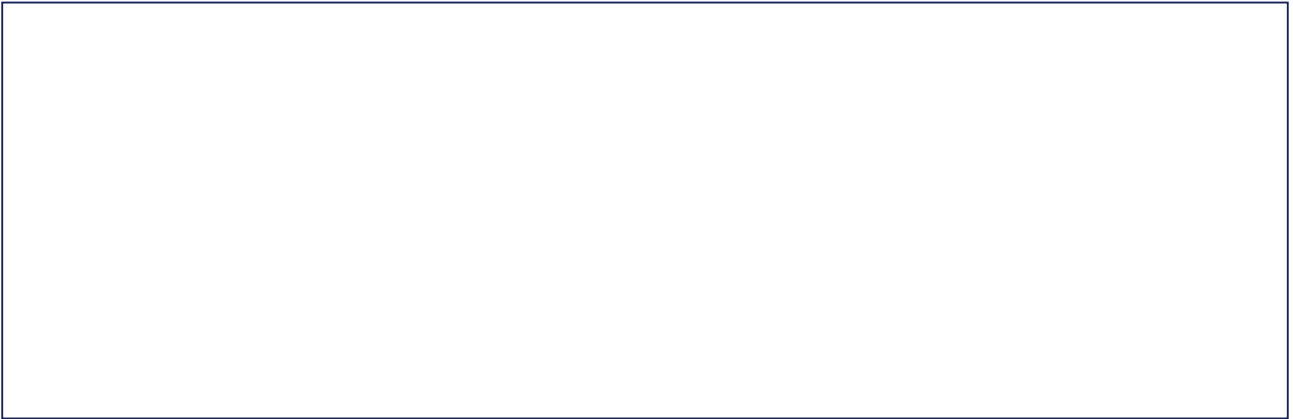
2. Kit needs to tell his friend how to wash an apple. Write two steps in the correct sequence. (4 marks)

3. If an instruction is in the wrong order, what do we call the mistake, and what do we do to fix it? (4 marks)

4. Kit forgets to add 'peel the banana' to his fruit salad algorithm. Why is this a problem for the computer or the person following the steps? (5 marks)

5. Look at these steps to brush teeth: 1. Put toothpaste on brush. 2. Rinse mouth. 3. Brush teeth. Is this the right order? Explain why or why not. (5 marks)

Draw: Draw a simple robot. Inside the robot's tummy, draw a list of 3 steps to help it walk to the door.



Extension challenge: Write an algorithm for making a cup of tea or getting ready for school. Ensure you use at least 5 clear steps. Total: /25