

Name: \_\_\_\_\_

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## Answer Key: Smart AI Patterns for 3rd Grade Scholars

Learners identify how machines use data to spot patterns and make choices during this engaging computer science technology assessment.

**1. If an AI is learning to identify different types of fruit, what does it need to see many examples of first?**

**Answer:** B) Pictures of various fruits

Machine learning works by looking at data, like pictures, to find patterns that help the AI recognize objects.

**2. AI can help a robot vacuum cleaner decide which path to take to avoid bumping into a sleeping dog.**

**Answer:** A) True

AI is used for problem-solving in real-time, such as navigating around obstacles in a room.

**3. When an AI gets better at a task after practicing with more information, we call this \_\_\_\_\_.**

**Answer:** C) Machine learning

Machine learning is the specific part of AI where systems improve their performance as they are given more data.

**4. Which of these is an example of an AI using a 'pattern' to help a human?**

**Answer:** B) A music app suggesting a song you might like

Recommendation systems analyze the patterns in what you usually listen to so they can predict other songs you will enjoy.

**5. An AI 'neural network' is a computer system that is inspired by how the human brain works.**

**Answer:** A) True

Neural networks are designed to mimic the way neurons in a human brain connect to process complex information.

**6. An AI that can group photos of 'cats' and 'dogs' is using \_\_\_\_\_ recognition.**

**Answer:** B) Image

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Image recognition is the ability of an AI to look at pixels and identify what is shown in a picture.

**7. Think about a weather app that uses AI. How does it know if it might rain tomorrow?**

**Answer:** C) It analyzes data from past storms and current wind

AI makes predictions by looking at historical data and finding similarities with what is happening now.

**8. AI is only found in giant robots and cannot be used on a regular tablet or phone.**

**Answer:** B) False

AI is found in many everyday devices, including smartphone apps, games, and website helpers.

**9. If you are teaching an AI to recognize a 'square,' what is the most important data to give it?**

**Answer:** C) Many examples of shapes with four equal sides

To teach an AI a specific concept, you must provide accurate data that represents the features of that concept.

**10. AI uses \_\_\_\_\_ to solve problems, which is like a very smart set of instructions.**

**Answer:** B) Algorithms

Algorithms are the step-by-step rules or instructions that a computer follows to finish a task or solve a problem.