

Name \_\_\_\_\_

## Spot the Missing Step - How Agents Work

AI agents complete tasks by moving through a chain of steps: they **sense** their environment, **process or reason** about the information, and then **act**. Sometimes they may also **learn** from experience. If even one step is skipped, the agent may fail to do its job.



In this activity, you'll read short stories about different agents. Each story is missing a key step in the process. Your job is to figure out **what step is missing** and write it in.

**Directions** - Read each case carefully. Think about the agent's process: **Perception → Reasoning → Action (→ Learning, if needed)**. Identify the missing step and write what it should be.

**Case 1 - The Lost Vacuum** - A vacuum robot senses crumbs under the table. It immediately drives in circles without changing suction power. After a few minutes, the crumbs are still on the floor.

**Question:** What key step was missing?  \_\_\_\_\_

**Case 2 - The Confused Chatbot** - A customer types: "Please tell me my delivery date." The chatbot reads the message and instantly replies: "Thank you for shopping with us!" The customer still doesn't know when the package will arrive.

**Question:** What key step was missing?  \_\_\_\_\_

**Case 3 - The Slow Traffic Light** - Sensors at an intersection count 20 cars waiting. The controller notes the line is long and compares it to the other lanes. The cars sit and sit... but the light never changes.

**Question:** What key step was missing?  \_\_\_\_\_

**Case 4 - The Overeager Health App** - A smartwatch measures a student's steps during gym class. It instantly buzzes and says: "Warning! You are too inactive today." The student is confused, since they just finished running laps.

**Question:** What key step was missing?  \_\_\_\_\_

**Case 5 - The Forgetful Recommender** - A music app records the last three songs a user played. The next day, it shows random suggestions unrelated to their listening history.

**Question:** What key step was missing?  \_\_\_\_\_