

Identify Machines That Can Think and Learn

How to use: Print first for the main practice. Then use the device to repeat activities and save progress.

LEARNING OBJECTIVES

- 1 Tell the difference between a smart machine and a regular machine
- 2 Sort each one into the correct group

MINI LESSON

Some machines can think and make decisions — we call them smart machines. Other machines just do the same job every single time. Can you spot the difference?

What is a smart machine?

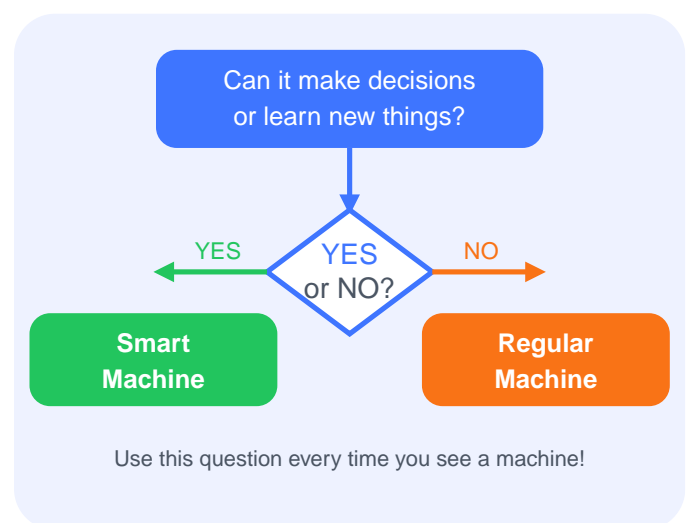
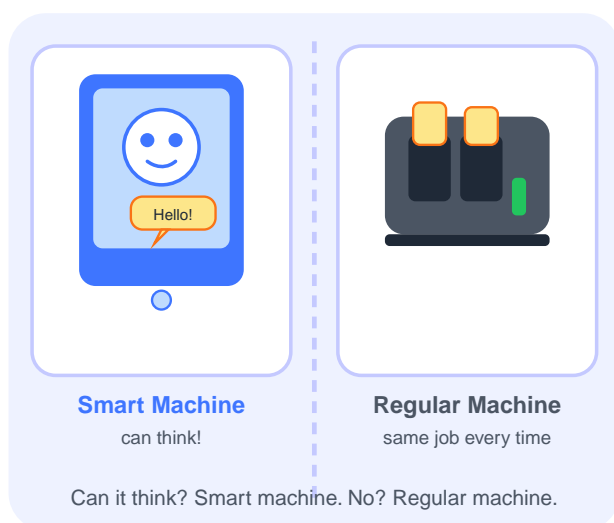
- A smart machine can take in information and make decisions.
- Example: a voice assistant listens to your question and chooses the right answer.
- Smart machines follow programs — sets of instructions that help them think.

What is a regular machine?

- A regular machine always does the same job the same way every time.
- Example: a toaster just heats bread — it cannot learn or change what it does.

How to tell them apart

- Ask: "Can this machine learn, answer questions, or make decisions?"
- Yes smart machine (robot vacuum, spell-checker, chess computer).
- No regular machine (lamp, ceiling fan, hand mixer).



! Ask yourself: "Is this machine doing the same thing every time, or is it thinking and making choices?"

VOCABULARY

Machine A tool with parts that work together to do a job
e.g. A washing machine cleans clothes for us.

Smart machine A machine that can take in information and make decisions
e.g. A robot vacuum is a smart machine because it can find its way around the room.

Decision A choice you make after thinking about it
e.g. The smart speaker made a decision about which song to play.

Program A set of instructions that tells a machine what to do
e.g. Without a program, the smart machine would not know how to answer.

Voice assistant A smart helper you can talk to that listens and answers
e.g. Mom asked the voice assistant to set a timer for the cookies.

TRACING PRACTICE

Trace each word, then copy it twice on the lines below.

TRACE (PASS OVER)

smart machine

COPY 1

COPY 2

TRACE (PASS OVER)

regular machine

COPY 1

COPY 2

TRACE (PASS OVER)

robot

COPY 1

COPY 2

TRACE (PASS OVER)

voice assistant

COPY 1

COPY 2

TRACE (PASS OVER)

program

COPY 1

COPY 2

TRACE (PASS OVER)

decision

COPY 1

COPY 2

TRACE (PASS OVER)

technology

COPY 1

COPY 2

TRACE (PASS OVER)

computer

COPY 1

COPY 2

EXERCISES — SORT & MATCH

Write each word in the correct column.

WORDS TO SORT

Voice assistant

Toaster

Robot vacuum

Lamp

Chess computer

Ceiling fan

Smart TV

Hand mixer

Spell-checker

Alarm clock

Smart Machine

Regular Machine

"Flip the page upside down to see the answer key"

Smart Machine: Voice assistant, Robot vacuum, Chess computer, Smart TV, Spell-checker | Regular Machine: Toaster, Lamp, Ceiling fan, Hand mixer, Alarm clock

EXERCISES — MULTIPLE CHOICE

1. What do we call a machine that can think and make decisions?

- A regular machine
- A smart machine
- A broken machine

2. Which of these is a smart machine?

- A toaster
- A lamp
- A voice assistant

3. What does a regular machine do?

- It learns new things every day
- It makes decisions on its own
- It does the same job the same way every time

4. Which one is a regular machine?

- A robot vacuum
- A ceiling fan
- A chess computer

5. How does a smart machine "think"?

- It copies exactly what a human does
- It follows a program that helps it make decisions
- It uses magic to find answers

6. Which machine can learn new things?

- A lamp
- A toaster
- A robot vacuum

7. A toaster pops up bread when it gets hot. Is a toaster a smart machine?

- Yes, because it knows when bread is hot
- No, because it just does the same job every time
- Yes, because it uses electricity

8. What is the best question to ask when deciding if a machine is smart?

- Can this machine be turned on?
- Can this machine make decisions or learn?
- Can this machine be plugged in?

9. Which of these is a smart machine?

- A hand mixer
- A bicycle
- A spell-checker on a computer

10. Smart machines are different from regular machines because smart machines can:

- Use electricity
- Break down
- Think and make decisions

ASSESSMENT

PARENT / TEACHER CHECKLIST

- Points to a picture of a machine and correctly names it as a smart machine or a regular machine.
- Gives a reason for their answer (e.g., "It can answer questions, so it's a smart machine.").
- Sorts at least 8 out of 10 machines correctly into the two buckets on screen.
- Scores 9 or 10 out of 10 on the MCQ Quick Check.