

## COMPUTING · GRADES 5–6

# AI and Machine Learning

How computers learn

## Three terms

1

**Artificial Intelligence (AI)**

When a computer does a task that usually needs human thinking — like seeing, reading or making decisions.

*Example: A camera that recognizes your face.*

2

**Machine Learning**

One way to make AI: show a computer LOTS of examples and let it spot patterns on its own.

*Example: Showing a computer 10,000 dog photos so it learns to recognize dogs.*

3

**Training data**

The examples used to teach a machine learning system.

*Example: All those 10,000 dog photos — that's the training data.*

## Where you've already met AI

Where	What it does
Voice assistants	Listen to your words and turn them into commands
Search engines	Rank pages to show you the best answer first
Email apps	Filter spam out of your inbox
Photo apps	Spot faces and group them into albums
Streaming services	Recommend shows based on what others like you watched



Where	What it does
Translate apps	Convert text from one language to another
Self-driving cars	Spot lanes, signs, pedestrians
Game characters	Make non-player decisions feel realistic

## Discuss

1. Where do humans STILL beat AI? (creativity? feelings? humor? knowing right from wrong?)
2. If an AI was trained mostly on data from one country, what problems could that cause?
3. Should there be rules about what AI is allowed to do? Who should make the rules?
4. Is there a job that AI definitely shouldn't do? Why?

