

# Teacher's Notes – Do not show students

## Lesson timing:

Starter: 10 mins

Main teaching: 15 mins

Station activities: 25 mins (or 8-9 mins each if sequential)

Quiz: 5 mins

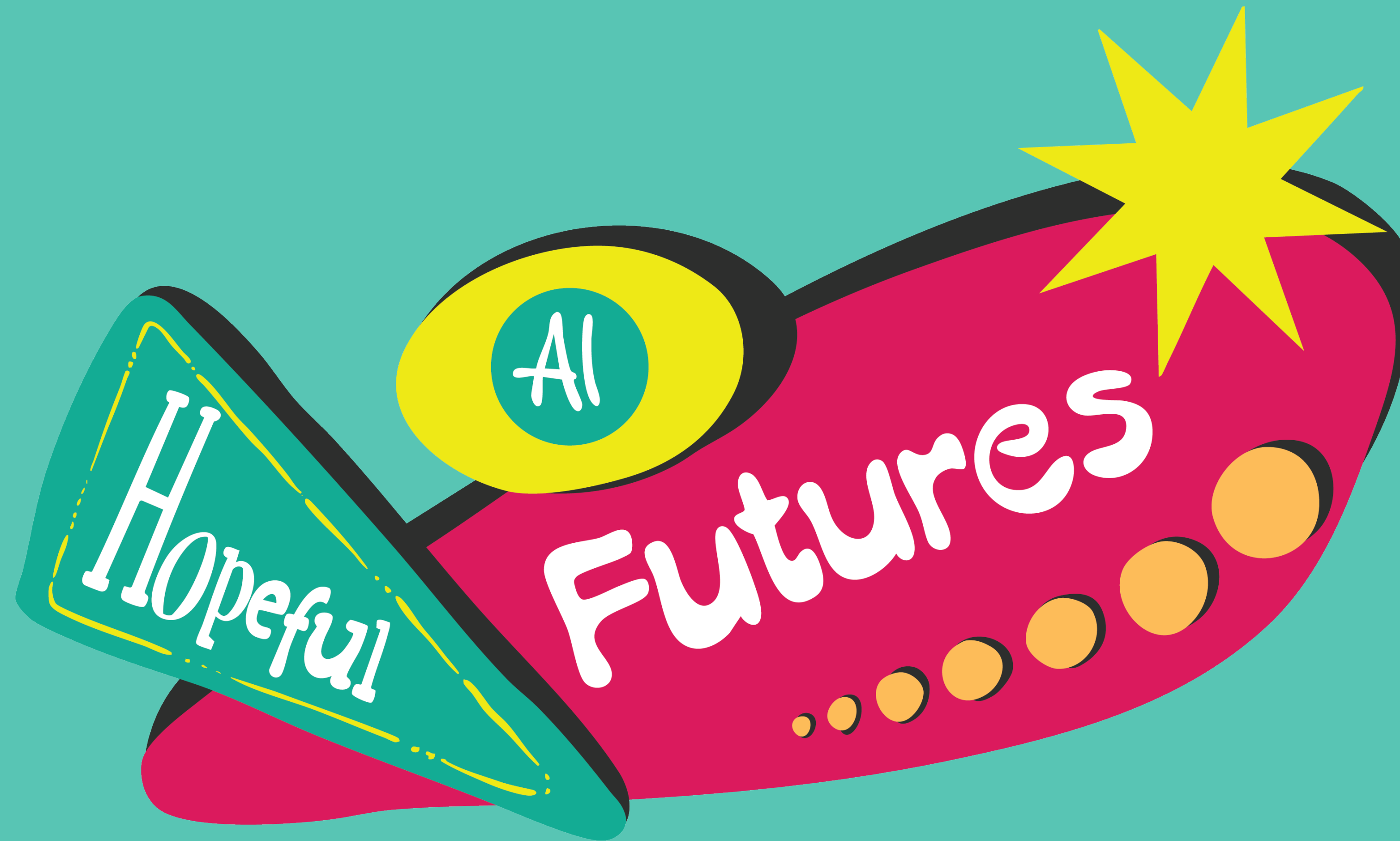
Exit ticket: 5 mins

## Resources needed:

- ★ Post-it notes
- ★ Worksheets (differentiated)
- ★ Device for demos (optional)
- ★ Mini whiteboards for quiz

## Tips:

- ★ Have backup if internet fails for demos
- ★ Pre-assign stations if rotating
- ★ Support students may need sentence starters
- ★ Challenge students can begin extension work early



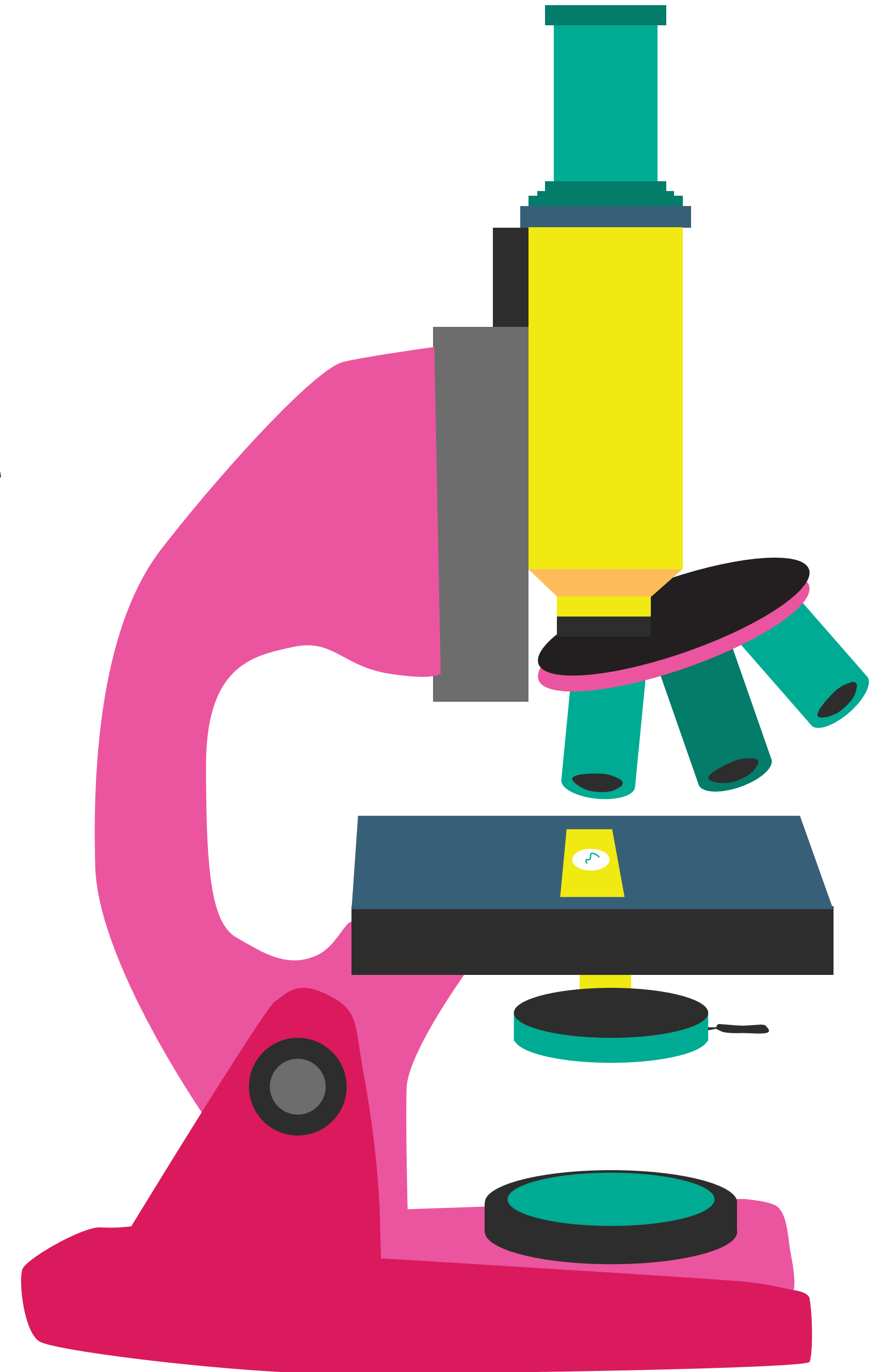
# Introduction to Artificial Intelligence

UNDERSTANDING AI IN OUR DAILY LIVES

# Learning Objectives

By the end of this lesson, you will be able to:

- ✳ Define artificial intelligence in your own words
- ✳ Identify and explain three types of AI you encounter in daily life
- ✳ Understand the difference between AI and human intelligence
- ✳ Evaluate the benefits and challenges of AI in society



# Starter Activity: AI in My Day

THINK-PAIR-SHARE (10 MINUTES)

**“What technology did you use this morning before school?”**

1. Write down 3-5 technologies on Post-it notes (2 mins)
2. Pair up and discuss which might use AI (3 mins)
3. Class discussion: collect and identify AI technologies (5 mins)

# Technologies Students Might Mention

COMMON TECHNOLOGIES	WHICH USE AI?
<ul style="list-style-type: none"><li>★ Mobile phones</li><li>★ Social media (TikTok, Instagram, Snapchat)</li><li>★ YouTube</li><li>★ Netflix</li><li>★ Video games</li><li>★ Smart speakers</li></ul>	<ul style="list-style-type: none"><li>★ Phones (face unlock, autocorrect)</li><li>★ Social media (filters, recommendations)</li><li>★ YouTube (recommendations)</li><li>★ Netflix (recommendations)</li><li>★ Games (AI opponents)</li><li>★ Smart speakers (voice recognition)</li></ul>

# What is Artificial Intelligence?

AI is when computers and machines are programmed to **learn, think,** and make **decisions** in ways that seem intelligent, similar to humans.

- ✳ AI learns from data and patterns
- ✳ AI gets better with practice (machine learning)
- ✳ AI doesn't actually "think" like humans - it processes information very quickly
- ✳ AI is programmed by humans but can learn things we didn't explicitly teach it

# AI vs Human Intelligence

HUMANS ARE BETTER AT	AI IS BETTER AT
Creativity	Speed
Emotions	Pattern Recognition
Common Sense	Never getting tired
Ethics and morality	Processing huge amounts of data
Understanding Context	24/7 reliability
Empathy	Repetitive tasks

**Discussion:**  
Can you think of more examples for each?



# Three Types of AI You Use Every Day

- 1 Virtual Assistants
- 2 Recommendation Systems
- 3 Image Recognition

Let's explore each one in detail...



# Type 1: Virtual Assistants



SIRI



ALEXA



GOOGLE  
ASSISTANT



**Copilot**

COPILOT

THIS TYPE OF AI USES NATURAL LANGUAGE PROCESSING (NLP) TO UNDERSTAND HUMAN SPEECH.

## How does it work?

- ★ Recognizes your voice and words
- ★ Understands what you mean (intent)
- ★ Searches for the answer
- ★ Responds in natural language

# Virtual Assistants - Station Activity

8 MINUTES

## **Watch:**

Short demo of voice assistant responding to questions

## **Discuss:**

- ★ How does it understand different voices and accents?
- ★ What questions have you asked a virtual assistant?

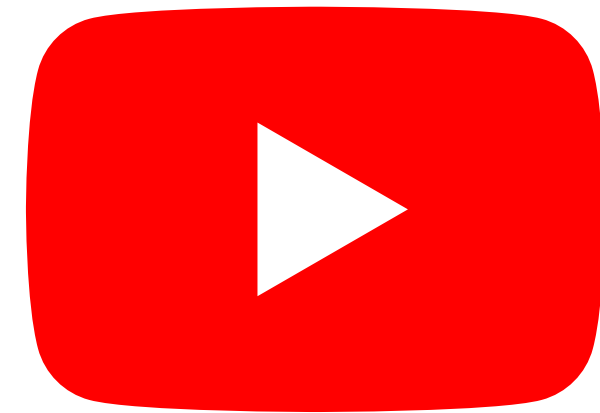
## **On your worksheet:**

1. Write down 3 questions you've asked (or would ask) a virtual assistant
2. Explain in 2-3 sentences how you think it works

# Type 2: Recommendation Systems



NETFLIX



YOUTUBE



SPOTIFY



TIKTOK

THIS IS AI THAT LEARNS WHAT YOU LIKE AND SUGGESTS MORE CONTENT YOU MIGHT ENJOY.

## How does it work?

- ✳ Tracks what you watch/listen to
- ✳ Monitors how long you engage with content
- ✳ Compares you to similar users
- ✳ Predicts what you'll like next

# How Recommendation AI Works

You watch a cooking video on YouTube

AI notices:  
"User watched 8 mins of cooking content"

AI analyses:  
"User has watched 15 cooking videos this month"

AI compares:  
"Users who watch cooking also like baking"

AI recommends:  
"Try this baking tutorial!"

**The more you use it, the better it gets at predicting!**

# Recommendation Systems - Station Activity

8 MINUTES

## Think Pair Share:

- ★ What was the last thing Netflix/YouTube recommended to you?
- ★ Why do you think it suggested that?

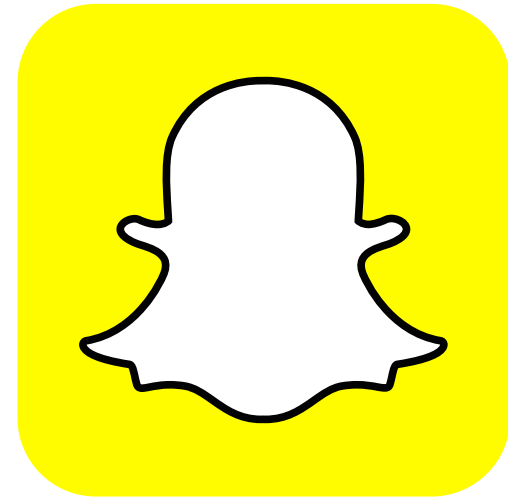
## Discuss:

- ★ Have you ever been surprised by a recommendation?
- ★ Was it good or bad?

## On your worksheet:

1. Note your most recent recommendation
2. Explain why you think it was recommended
3. Draw a simple flowchart showing how YouTube decides what to recommend

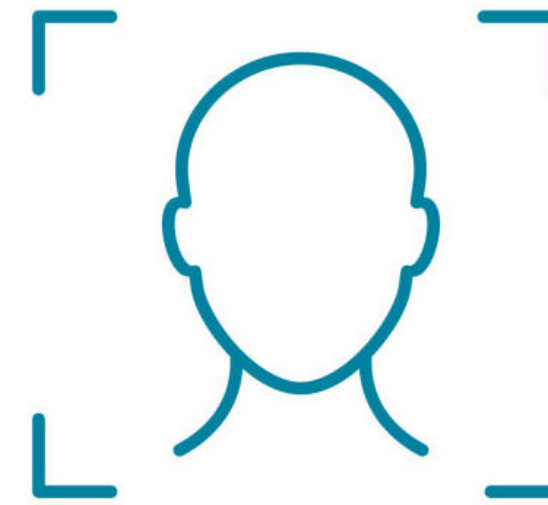
# Image Recognition



SNAPCHAT  
FILTERS



GOOGLE  
LENS



FACE  
ID

THIS IS CALLED COMPUTER VISION - AI THAT CAN "SEE" AND UNDERSTAND IMAGES AND VIDEOS.

## How does it work?

- ★ AI is trained on millions of images
- ★ Learns to recognize patterns, shapes, faces, objects
- ★ Can identify specific people, animals, or things

# How Face ID Works

## Step 1: Setup

- ✳️ AI scans your face from different angles
- ✳️ Creates a mathematical map of your facial features
- ✳️ Stores this securely on your phone

## Step 2: Unlocking

- ✳️ Camera scans your face
- ✳️ AI compares to the stored face map
- ✳️ Unlocks if it matches (even with glasses, hats, or in different lighting!)

## Step 3: Learning

- ✳️ AI learns subtle changes (hairstyle, aging)
- ✳️ Gets better over time



# Image Recognition - Station Activity

9 MINUTES

## Watch:

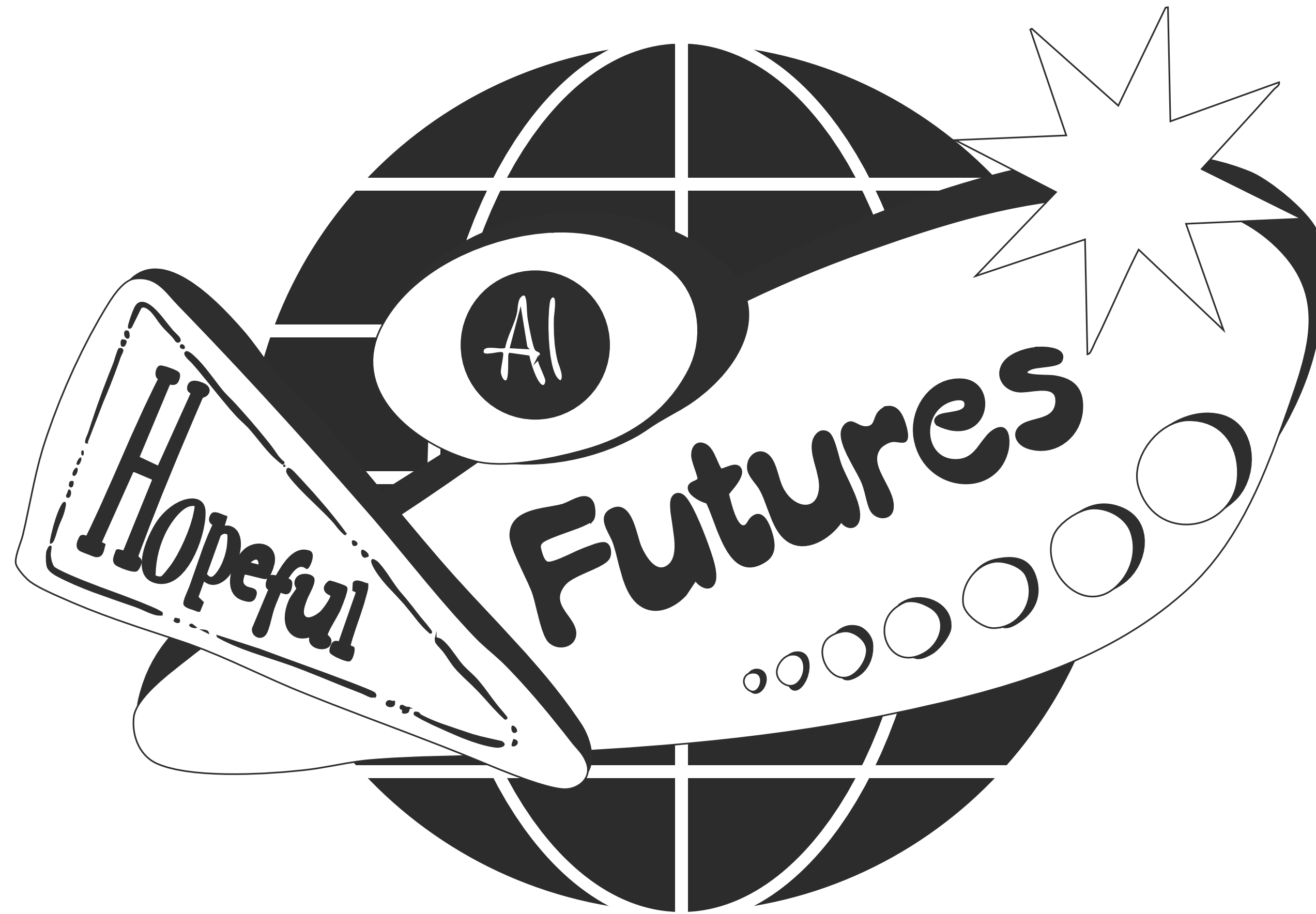
- ★ Face filter transforming faces in real-time
- ★ Google Photos searching for objects

## Discuss:

- ★ How does Snapchat know where your face is to add filters?
- ★ How can Google Photos find all pictures of your dog?

## On your worksheet:

1. List 3 apps you use that recognize faces or objects
2. Explain how Face ID keeps your phone secure



# Quick Quiz!

Get your mini-whiteboards ready!

1. AI can think exactly like humans.

**TRUE**

**FALSE**

AI can think exactly like humans.

**FALSE**

AI processes information very quickly and can learn patterns, but it doesn't have consciousness, emotions, or true understanding like humans do.

2. Which type of AI helps Netflix choose what to show you?

- ☐ Virtual Assistants
- ☐ Recommendation Systems
- ☐ Image Recognition

# Which type of AI helps Netflix choose what to show you?

- ☐ Virtual Assistants
- ☒ Recommendation Systems
- ☐ Image Recognition

Netflix uses AI to analyse what you watch and suggest similar content you might enjoy.

3. What does NLP stand for?

N ..... L ..... P .....



# What does NLP stand for?

## Natural Language Processing

This is the technology that allows AI to understand human language, used in virtual assistants like Siri and Alexa.

4. Name one way AI is BETTER than humans



# Name one way AI is BETTER than humans

- ☒ Speed
- ☒ Processing large amounts of data
- ☒ Never getting tired
- ☒ Pattern recognition
- ☒ 24/7 availability

# Exit Ticket: 3-2-1 Reflection

Complete on your worksheet before you leave:

- 3 types of AI you learned about today
- 2 examples of AI you use regularly
- 1 question you still have about AI

Hand in your worksheet as you exit

# Key Vocabulary to Remember

Complete on your worksheet before you leave:

**ARTIFICIAL INTELLIGENCE (AI)**

Machines that can learn and make decisions

**MACHINE LEARNING**

AI that improves with experience

**ALGORITHM**

Step-by-step instructions for solving a problem

**NATURAL LANGUAGE PROCESSING  
(NLP)**

AI understanding human  
language

**COMPUTER VISION**

AI that can see and understand images

**PATTERN RECOGNITION**

Finding similarities in data

# Extension/Homework Activities (Optional)

## ★ AI DIARY

Track every time you use AI for one whole day

## ★ INTERVIEW CHALLENGE

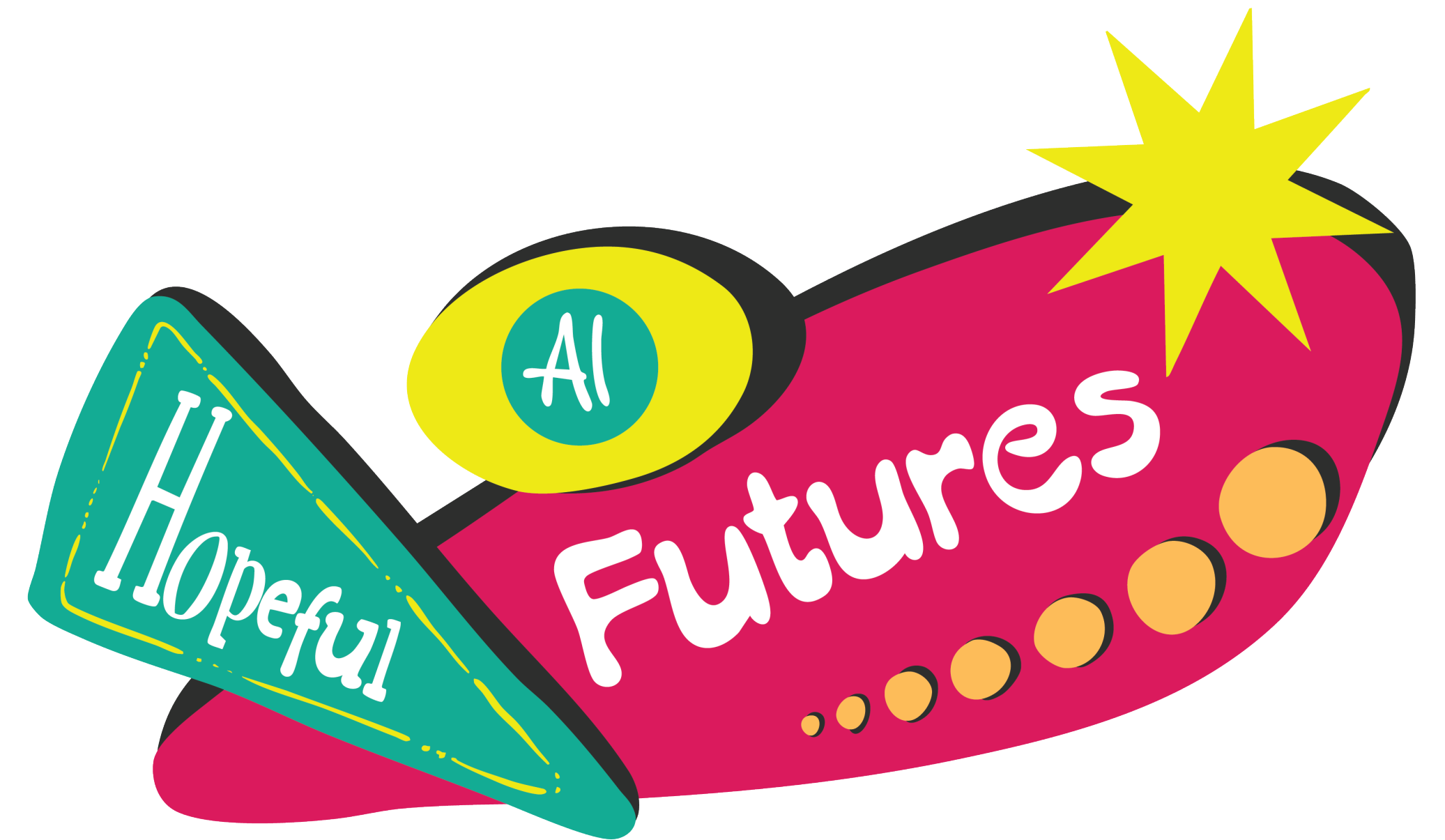
Interview a family member: What AI do they use at work?

## ★ RESEARCH TASK

How is AI used in: medicine, transportation, entertainment, OR education?

## ★ CREATIVE CHALLENGE

Design a poster explaining one type of AI to primary school students



# DUE: NEXT LESSON