

# Explore Advanced Uses of AI

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

## LEARNING OBJECTIVES

- 1 Distinguish between creative and analytical uses of AI
- 2 Name real AI tools and describe what each one does
- 3 Give examples of advanced AI applications in everyday life

## MINI LESSON

Artificial intelligence (AI) is no longer just science fiction — it is part of daily life. AI can be divided into two broad types of uses: creative AI and analytical AI. Understanding the difference helps us see how powerful and varied AI technology has become.

### Creative AI Uses

- Creative AI helps generate new content such as text, images, music, and video.
- ChatGPT and similar tools can write stories, answer questions, and brainstorm ideas.
- DALL-E and Midjourney create artwork and illustrations from text descriptions.
- AI music tools like Suno compose original songs in any style.
- Creative AI works as a collaborator — it assists human creativity rather than replacing it.

### Analytical AI Uses

- Analytical AI processes and interprets large amounts of data to find patterns and make predictions.
- AlphaFold by DeepMind predicts the shape of proteins, helping scientists develop medicines.
- Banks use AI to detect fraud by spotting unusual patterns in millions of transactions.
- Weather forecasting AI analyses atmospheric data to improve prediction accuracy.
- Recommendation engines on streaming platforms predict what you want to watch next.

### Key AI Tools

- ChatGPT — a conversational AI that generates text based on prompts.
- DALL-E — an AI that creates images from written text descriptions.
- AlphaFold — predicts the 3D structure of proteins for medical research.
- Google Translate — uses AI to translate between more than 100 languages.
- Spotify Discover Weekly — uses AI to recommend music based on your listening habits.

! Tip: Creative AI makes new content; Analytical AI finds patterns in data. Many tools do both!

VOCABULARY

**artificial intelligence** - Technology that allows computers to perform tasks that normally require human intelligence.

**creative AI** AI systems that generate new content such as text, images, or music.

**analytical AI** AI systems that process data to identify patterns and make predictions.

**generate** To produce or create something, especially content or output.

**pattern recognition** The ability to identify regularities and trends in data.

**algorithm** A step-by-step set of instructions that a computer follows to complete a task.

**Creative vs Analytical AI**

**Creative AI**

- Writing text
- Generating images
- Composing music
- Creating videos

**Analytical AI**

- Detecting fraud
- Predicting weather
- Medical diagnosis
- Pattern recognition

Both types use data and learning algorithms

**AI Tools and Their Uses**

**ChatGPT**

Generates text from prompts

**DALL-E**

Creates images from text

**AlphaFold**

Predicts protein structures

**Google Translate**

Translates 100+ languages

**Spotify AI**

Recommends music you enjoy

Each tool uses different AI capabilities

VOCABULARY

**artificial intelligence** - Technology that allows computers to perform tasks that normally require human intelligence.

**creative AI** AI systems that generate new content such as text, images, or music.

**analytical AI** AI systems that process data to identify patterns and make predictions.

**generate** To produce or create something, especially content or output.

**pattern recognition** The ability to identify regularities and trends in data.

**algorithm** A step-by-step set of instructions that a computer follows to complete a task.

**TRACING PRACTICE**

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

MODEL — READ IT

artificial

COPY 1

COPY 2

MODEL — READ IT

intelligence

COPY 1

COPY 2

MODEL — READ IT

creative

COPY 1

COPY 2

MODEL — READ IT

analytical

COPY 1

COPY 2

MODEL — READ IT

generate

COPY 1

COPY 2

MODEL — READ IT

pattern

COPY 1

COPY 2

Tip: Say each word aloud as you write it.

TYPE OR WRITE

Write 3 different words from the list above.

- .....
- .....
- .....

**EXERCISES — SORT & MATCH**

Sort each example into the correct bucket: Creative AI use or Analytical AI use.

SENTENCES TO SORT

- AI composing original music
- AI writing a short story from a prompt
- AI generating artwork from a description
- AI creating a video from text
- AI detecting fraud in banking transactions
- AI predicting tomorrow's weather
- AI recommending films based on your history
- AI scanning medical images for disease

Write the number of each sentence in the correct bucket below.

**Creative AI use**

---

---

---

---

---

**Analytical AI use**

---

---

---

---

---

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

Creative AI use: AI composing original music, AI writing a short story from a prompt, AI generating artwork from a description, AI creating a video from text | Analytical AI use: AI detecting fraud in banking transactions, AI predicting tomorrow's weather, AI recommending films based on your history, AI scanning medical images for disease

**EXERCISES — MATCH THE PAIRS**

Match each AI tool to what it does.

- ChatGPT
- DALL-E
- AlphaFold

- Translates between over 100 languages using AI
- Recommends music based on listening habits
- Identifies unusual patterns in financial data

4. Google Translate

5. Spotify AI

6. Fraud detection AI

D. Generates text based on prompts

E. Creates images from text descriptions

F. Predicts protein structures for medical research

Write the matching letter next to each number (e.g. 1-B, 2-A, 3-C...).

1 — \_\_\_\_ 2 — \_\_\_\_ 3 — \_\_\_\_ 4 — \_\_\_\_ 5 — \_\_\_\_ 6 — \_\_\_\_

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

1-D 2-E 3-F 4-A 5-B 6-C

## PRACTICE — DICTATION / TYPING

Without looking, explain the difference between creative and analytical AI and give one example of each.

**Can you explain the difference between creative AI and analytical AI, and give one example of each type?**

*Think about what creative AI produces (new content) versus what analytical AI does (finds patterns in data).*

---

---

---

---

---

---

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

creative / analytical / generate / pattern / data / content

## EXERCISES — MULTIPLE CHOICE

Circle the best answer.

**1. What is artificial intelligence?**

- A robot that looks like a human
- Technology that allows computers to perform tasks needing human intelligence
- A type of internet connection

**2. Which of the following is a creative AI use?**

- Detecting bank fraud
- Forecasting weather
- Generating artwork from a text description

**3. What does DALL-E do?**

- Translates languages
- Creates images from text descriptions
- Predicts protein structures

**4. Which tool predicts protein structures to help medical research?**

- ChatGPT
- AlphaFold
- Suno

**5. Analytical AI is best described as AI that...**

- Creates original music and writing
- Processes data to find patterns and make predictions
- Controls physical robots

**6. A bank uses AI to spot unusual spending patterns. This is an example of:**

- Creative AI
- Analytical AI
- Robotic AI

**7. What does a recommendation engine do?**

- Writes code automatically
- Predicts content you will enjoy based on your past behaviour
- Translates text into another language

**8. Which statement about AI is most accurate?**

- AI can only perform creative tasks
- AI can only perform analytical tasks
- AI can perform both creative and analytical tasks

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

1 b 2 c 3 b 4 b 5 b 6 b 7 b 8 c

## ASSESSMENT

### PARENT / TEACHER CHECKLIST

- Can explain the difference between creative and analytical AI
- Can name at least 3 AI tools and describe what each does
- Can give one real-life example of creative AI and one of analytical AI
- Can use vocabulary: artificial intelligence, generate, pattern recognition, algorithm