

AI Myths vs Facts Worksheet

Busting Common AI Misconceptions • Student Activity • Ages 10 to 15

Instructions: For each statement, decide if it's a MYTH (false) or a FACT (true). Write MYTH or FACT and explain your reasoning. Then check the answer key on the back page.

1. "AI can think and understand like humans."

MYTH / FACT **My reasoning:**

2. "AI is always accurate and trustworthy."

MYTH / FACT **My reasoning:**

3. "AI can learn from data without being explicitly programmed."

MYTH / FACT **My reasoning:**

4. "AI will replace ALL human jobs."

MYTH / FACT **My reasoning:**

5. "AI can be biased and unfair."

MYTH / FACT **My reasoning:**

6. "Robots and AI are the same thing."

MYTH / FACT **My reasoning:**

7. "AI learns from EVERYTHING on the internet."

MYTH / FACT **My reasoning:**

8. "Deepfakes can be created using just a few photos or seconds of audio."

MYTH / FACT **My reasoning:**

9. "Self-driving cars are fully autonomous and never need human drivers."

MYTH / FACT **My reasoning:**

10. "AI chatbot conversations are private and not stored."

MYTH / FACT **My reasoning:**

11. "General AI (like in sci-fi movies) exists today."

MYTH / FACT **My reasoning:**

12. "AI image generators can create images of people who don't exist."

MYTH / FACT **My reasoning:**

13. "AI is a new technology invented in the 2020s."

MYTH / FACT **My reasoning:**

14. "Companies make money from your data."

MYTH / FACT **My reasoning:**

15. "AI can predict the future."

MYTH / FACT **My reasoning:**

16. "AI always knows when it's wrong."

MYTH / FACT **My reasoning:**

17. "Using AI to write your homework is the same as using a calculator in maths."

MYTH / FACT **My reasoning:**

18. "AI can detect emotions from your face."

MYTH / FACT **My reasoning:**

19. "AI-generated text can be reliably detected by AI detection tools."

MYTH / FACT **My reasoning:**

20. "AI learns the same way children do."

MYTH / FACT **My reasoning:**

Score: _____ / 20

Answer Key

Teacher use only. Do not distribute to students before activity.

1. MYTH

“AI can think and understand like humans.”

AI processes data statistically. It has no consciousness, understanding, or inner experience. When ChatGPT writes a paragraph, it’s predicting the most likely next word. It doesn’t “understand” what it writes.

2. MYTH

“AI is always accurate and trustworthy.”

AI regularly makes mistakes (“hallucinations”) and can generate completely false information with total confidence. A New York lawyer was fined \$5,000 for submitting fake AI-generated legal citations.

3. FACT

“AI can learn from data without being explicitly programmed.”

This is the core principle of machine learning. Instead of following rules written by a human, AI discovers patterns in data. Show it 100,000 cat photos and it learns to recognise cats.

4. MYTH

“AI will replace ALL human jobs.”

AI will automate some tasks and change many jobs, but every major technology revolution has created more jobs than it eliminated. New roles like AI trainers, prompt engineers, and AI ethics officers didn’t exist 5 years ago.

5. FACT

“AI can be biased and unfair.”

AI learns from historical data, which often contains human biases. Amazon’s recruitment AI discriminated against women because it was trained on 10 years of mostly-male hiring data.

6. MYTH

“Robots and AI are the same thing.”

AI is software (the “brain”). A robot is hardware (the “body”). Most AI has no physical form at all. Siri, Netflix recommendations, and spam filters are all AI with no robot.

7. MYTH (partially)

“AI learns from EVERYTHING on the internet.”

AI is trained on specific datasets curated by developers. While some datasets are large (Common Crawl, Wikipedia), AI doesn’t have access to everything. Training data has a cutoff date, and private/paywalled content is often excluded.

8. FACT

“Deepfakes can be created using just a few photos or seconds of audio.”

Modern voice cloning needs as little as 3 seconds of audio. Face-swap technology can work with just a few clear photos. The technology is increasingly accessible and often free.

9. MYTH

“Self-driving cars are fully autonomous and never need human drivers.”

As of 2026, no commercially available car is fully autonomous (Level 5). Tesla’s “Autopilot” and “Full Self-Driving” are Level 2; they require constant human supervision.

10. MYTH

“AI chatbot conversations are private and not stored.”

Most AI chatbots store conversations. OpenAI’s terms state conversations may be reviewed by human trainers and used to improve future models. Data can be subpoenaed by law enforcement.

11. MYTH

“General AI (like in sci-fi movies) exists today.”

All AI today is Narrow AI; it excels at one specific task. General AI (human-level intelligence across all domains) does not exist. Expert estimates suggest 2050 to 2060 at the earliest, and many believe it may never happen.

12. FACT

“AI image generators can create images of people who don't exist.”

Tools like Midjourney, DALL-E, and Stable Diffusion can generate photorealistic images of people who have never existed. These are increasingly difficult to distinguish from real photos.

13. MYTH

“AI is a new technology invented in the 2020s.”

The term “Artificial Intelligence” was coined in 1956. AI research has been ongoing for nearly 70 years. What's new is the scale and accessibility; modern computing power and massive datasets have made recent breakthroughs possible.

14. FACT

“Companies make money from your data.”

Google (\$307B), Meta (\$135B), and TikTok (\$23B) earn the vast majority of their revenue from targeted advertising based on user data. The saying: “If you're not paying for the product, you ARE the product.”

15. MYTH (partially)

“AI can predict the future.”

AI can make predictions based on patterns in historical data (weather, stock trends, traffic), but it cannot truly predict unpredictable events. Its predictions are statistical probabilities, not certainties.

16. MYTH

“AI always knows when it's wrong.”

AI has no self-awareness and cannot tell the difference between a correct and incorrect answer. It generates responses based on statistical patterns, not understanding. This is why it can present false information with complete confidence.

17. MYTH

“Using AI to write your homework is the same as using a calculator in maths.”

A calculator performs a specific computation you've set up. AI generates entire pieces of work, bypassing the learning process. Using AI to write an essay means you don't practise research, critical thinking, or communication. Those are skills the homework was designed to develop.

18. MYTH (partially)

“AI can detect emotions from your face.”

Emotion recognition AI attempts to read facial expressions, but research shows facial expressions don't reliably map to emotions across cultures. A 2019 meta-analysis by the Association for Psychological Science found that these systems are scientifically unreliable.

19. MYTH

“AI-generated text can be reliably detected by AI detection tools.”

AI detection tools (like GPTZero, Turnitin's AI detector) have significant false positive rates, often flagging human-written text as AI-generated. Studies show accuracy drops below 50% for paraphrased AI text. No detector is fully reliable.

20. MYTH

“AI learns the same way children do.”

Children learn through experience, curiosity, social interaction, and understanding. AI “learns” by finding statistical correlations in massive datasets. A child who sees ONE dog can recognise all dogs; AI may need thousands of labelled examples.

Scoring Guide:

- 18 to 20 correct: AI Expert! Excellent critical thinking.
- 14 to 17 correct: Strong understanding. Review the myths you missed.
- 10 to 13 correct: Good start. Reread the answer explanations carefully.
- Below 10: Don't worry! These are tricky. Discuss with your teacher.