

Human or Computer?

Textbook

Human or Computer?



"The Amazing Teamwork of Humans, Computers, and AI"

One afternoon, Tim and Lane were ready for their next lesson. Mr. Smith said, "Today, we'll talk about what humans, computers, and AI can do better."

"Computers are great at math," Mr. Smith explained. "They can solve big problems, like adding or multiplying large numbers, super quickly."

"That's helpful!" Tim said. "But can computers solve mysteries?"

"Regular computers can't," Mr. Smith answered. "But there's a special type called Artificial Intelligence, or AI. AI devices can learn and get smarter, unlike regular computers."

Lane thought for a second. "What's the difference between a regular computer and AI?"

"Great question!" said Mr. Smith. "Regular computers follow exact instructions. AI devices can learn from what happens and change how they respond. Like when you talk to Siri or Alexa, they get better at understanding you!"

Tim raised his hand. "So what can AI do that regular computers can't?"

"AI can recognize your voice, learn your favorite songs, and even understand when you ask questions in different ways," Mr. Smith explained. "But humans are still better at creativity, understanding feelings, and solving tricky problems."

Lane was curious. "What about things that humans do better than both computers and AI?"

"Humans are great at using creativity and empathy," Mr. Smith said. "We can cheer up a friend, create new art, or solve problems that don't have clear answers. Computers and AI help with tasks, but they can't understand feelings like humans do."

Tim thought about it. "Could AI help with a birthday party?"

"AI could suggest party games based on what kids like, or help order supplies online. But only a human could choose the perfect theme and make sure everyone feels included!" Mr. Smith said.

Lane smiled. "Humans, computers, and AI all have special skills. They make a great team!"

Mr. Smith nodded. "Exactly! Regular computers are fast and precise, AI devices can learn and adapt, and humans are creative and caring. Together, they're unstoppable!"

Let's Review!

Humans, regular computers, and AI devices each have special skills that make them unique, and when they work together, they can achieve amazing things!

Regular computers are really good at:

- Doing math quickly and accurately
- Storing and organizing information efficiently
- Following instructions exactly without getting tired or making mistakes

AI devices can do what regular computers do, PLUS:

- Learn from experience and get better over time
- Recognize voices, faces, and patterns
- Understand speech and respond to questions
- Adapt to how different people use them

Examples of AI devices you might know:

- Smart speakers (like Alexa or Google Home)
- Voice assistants on phones (like Siri)
- Smart toys that learn your name and preferences
- Recommendation systems that suggest videos or music

Humans are great at:

- Using creativity to solve problems, like making art or writing stories
- Understanding emotions and using empathy to help others
- Solving complex problems that don't have easy answers
- Making decisions based on feelings and values

What AI Still Can't Do Like Humans:

- Truly understand emotions and feelings
- Be genuinely creative (AI can copy patterns but not create truly new ideas)
- Make moral decisions about right and wrong

- Care about others or form real friendships

Comparing All Three

Task: Doing Math

- **Regular Computer:** Very fast and accurate
- **AI Device:** Fast and can explain the steps
- **Human:** Slower but can understand why math matters

Task: Playing Music

- **Regular Computer:** Plays songs exactly as programmed
- **AI Device:** Learns what music you like and suggests new songs
- **Human:** Creates new music and understands what makes music beautiful

Task: Helping a Friend

- **Regular Computer:** Can find information about problems
- **AI Device:** Can suggest solutions based on similar situations
- **Human:** Can truly understand feelings and provide real comfort

Critical Thinking Questions

1. What makes AI devices different from regular computers?
2. Can you think of an AI device you've used or seen? How did it learn or adapt?
3. What's something only humans can do that neither computers nor AI can do?
4. How do you think humans, computers, and AI work best as a team?

Sentence Stems

Here are some sentence starters to help us talk about humans, computers, and AI:

1. "Humans are better at (blank) because (blank)."
2. "AI devices can (blank) but they cannot (blank)."
3. "The difference between regular computers and AI is (blank)."

Questions (5)

1. What is something a regular computer can do well?

MULTIPLE CHOICE

Choose the correct answer:

- A. Draw a picture
- B. Do math quickly
- C. Guess your favorite color
- D. Bake a cake

2. True or False AI devices can learn and get better over time.

MULTIPLE CHOICE

Choose the correct answer:

- A. True
- B. False

3. Which of these is an example of AI?

MULTIPLE CHOICE

Choose the correct answer:

- A. A smart speaker
- B. A notebook
- C. A pencil
- D. A book

4. True or False Regular computers can recognize your voice without any special programming.

MULTIPLE CHOICE

Choose the correct answer:

- A. True
- B. False

5. What can both regular computers and AI do?

MULTIPLE CHOICE

Choose the correct answer:

- A. Store and organize information
- B. Learn from experience
- C. Understand feelings
- D. Understand feelings

Games (2)

1. Human or Computer Sorting

Full Screen

Audio

Instructions

Answer Key

Pause

Clear All

Check Order

Attempts: 0

Doing the same
steps over and
over without
getting tired

Solving math
problems very
fast

Figuring out
problems with no
clear answer

Changing plans
when something
unexpected
happens

Saving and
finding files or
pictures

Thinking of new
ideas

Computer Do
Best

Humans Do
Best



2. Tasks Human or Computer

Full Screen

Audio

Instructions

Answer Key

Pause

Clear All

Check Order

Attempts: 0

Carry heavy boxes




Show directions on a map after being programmed

Water plants in a garden

Play a music playlist in the order it's told

Help (Humans)

Follow Computers



Blocks Challenges (5)

1. Human or Computer?



Human or Computer?

Using a person sprite and the laptop sprite, program each sprite to say one thing they can do.

2 2 2



Submit ↑



2. Food Fight



Food Fight

Something strange is happening in the bakery kitchen! The cake is shrinking and the cookie is growing!

Program the cake sprite to grow while the cookie sprite is shrinking. Then have the sprite reset to its original size at the end of your code.

Hint: Use one look block for each and practice changing the number to make it grow or shrink more than one time.

2 4 2



Submit ↑



3. Cat Chase!

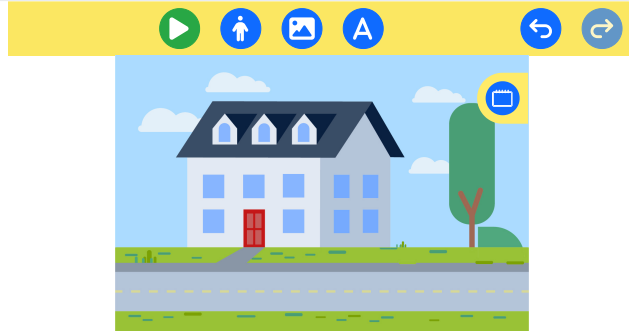


Cat Chase!

The dog got loose and wants to play! Program the dog to come up to the cat sprite. When the dog touches the cat, have the cat "hiss" and move away from the dog.

Hint: Think about what event block you need for the cat to start its code.

2 6 1 2



Submit ↑



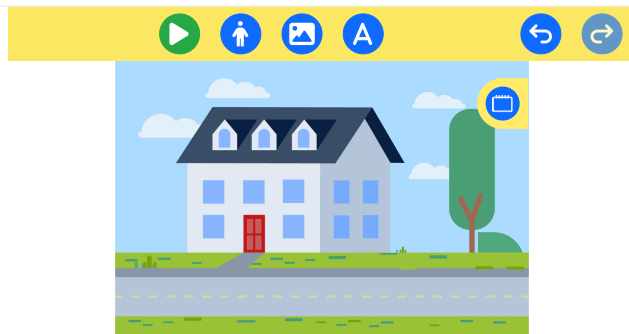
4. Buzz Buzz



Buzz Buzz

The beehive has been disturbed and the bee must fly away! Using the beehive and bee sprites, program the beehive to shake back and forth as the bee flies away from it.

2 10 2



Submit ↑



5. Spring Flowers

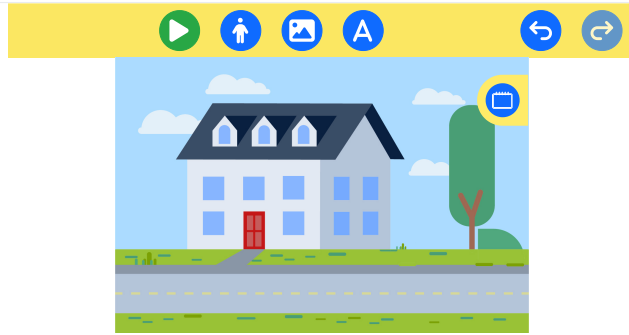


Spring Flowers

The sun is shining, birds are chirping, and flowers are growing. Spring is here! The rain helps the flowers grow.

Program one of the flower sprites to grow when a the water sprite touches it. (Extra challenge: Can you make the water drop disappear when it touches the flower?)

 2  2  4  2



Submit ↑



Answer Keys & Solutions

Questions

1. What is something a regular computer can do well?

MULTIPLE CHOICE

Correct Answer:

- A. Draw a picture ✗ Incorrect
- B. Do math quickly ✓ Correct
- C. Guess your favorite color ✗ Incorrect
- D. Bake a cake ✗ Incorrect

Explanation:

Think about what computers are fast at doing with numbers.

2. True or False AI devices can learn and get better over time.

MULTIPLE CHOICE

Correct Answer:

- A. True ✓ Correct
- B. False ✗ Incorrect

Explanation:

Remember what Mr. Smith said about Siri and Alexa.

3. Which of these is an example of AI?

MULTIPLE CHOICE

Correct Answer:

- A. A smart speaker ✓ Correct
- B. A notebook ✗ Incorrect
- C. A pencil ✗ Incorrect

D. A book

✗ Incorrect

Explanation:

This device can talk back to you and follow your requests.

4. True or False Regular computers can recognize your voice without any special programming.

MULTIPLE CHOICE

Correct Answer:

A. True

✗ Incorrect

B. False

✓ Correct

Explanation:

Think about who can do that – regular computers or AI?

5. What can both regular computers and AI do?

MULTIPLE CHOICE

Correct Answer:

A. Store and organize information

✓ Correct

B. Learn from experience

✗ Incorrect

C. Understand feelings

✗ Incorrect

D. Understand feelings

✗ Incorrect

Explanation:

Both can keep track of data and help you find it later.

Games

1. Human or Computer Sorting

Category Solutions:

Category 1: Computer Do Best

- Solving math problems very fast

- Doing the same steps over and over without getting tired
- Saving and finding files or pictures

Category 2: Humans Do Best

- Thinking of new ideas
- Figuring out problems with no clear answer
- Changing plans when something unexpected happens

Scoring:

- Gold: 1 attempts or fewer
- Silver: 2 attempts or fewer
- Bronze: 3 attempts or fewer

Students must sort items into their correct categories.

2. Tasks Human or Computer

Category Solutions:

Category 1: Help (Humans)

- Carry heavy boxes
- Water plants in a garden

Category 2: Follow Computers

- Play a music playlist in the order it's told
- Show directions on a map after being programmed

Scoring:

- Gold: 1 attempts or fewer
- Silver: 2 attempts or fewer
- Bronze: 3 attempts or fewer

Students must sort items into their correct categories.