

Lesson Plan #5

Application of AI in Everyday Life



SAINT

HANDS ON INTRODUCTION TO ARTIFICIAL
INTELLIGENCE IN PRIMARY EDUCATION
USING MINECRAFT

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REVISION HISTORY

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(*) Action: C = Creation, I = Insert, U = Update, R = Replace, D = Delete

REFERENCED DOCUMENTS

ID	Reference		Title
1	2022-1-FR01-KA220-SCH-000087794		SAINT Proposal
2			

APPLICABLE DOCUMENTS

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Lesson Plan: Application of AI in Everyday Life

Grade Level: Primary (Ages 9-12)

Subject: Computer Science / Technology

Learning Goals:

1. Understand the concept of AI and its application in everyday life, including aspects of perception, representation, reasoning, and interaction.
2. Explore the societal implications of AI, discussing case studies and success stories.
3. Apply acquired AI knowledge in practical settings using digital tools and interactive activities.

Session 1: Understanding AI and Its Application in Everyday Life (45 minutes)

Objective:

- Students will understand the concept of AI, how it is used in everyday life, and how AI systems make decisions based on information.

Activities:

1. Introduction (5 minutes):

- Begin by explaining what Artificial Intelligence (AI) is, using simple examples like voice assistants (Siri, Alexa), recommendation systems (Netflix, Amazon), and autonomous vehicles.
- Emphasize that AI is about creating systems that can perform tasks requiring human intelligence, such as understanding natural language or recognizing patterns.

2. Discussion: Perception and Decision-Making in AI (10 minutes):

- Discuss how AI perceives the world through data and makes decisions based on that information.
- Use real-world examples like a recommendation system suggesting a movie based on previous viewing patterns, or a voice assistant responding to spoken commands.

3. Video and Discussion Activity (15 minutes):

- Show a short video explaining the basics of AI and its applications in everyday life. This could be a TED-Ed video or another educational resource.
- After the video, discuss the different applications of AI mentioned, and how they use data to make decisions.

4. **Group Activity: AI in Our Lives (10 minutes):**

- Divide students into groups and have them brainstorm examples of AI they encounter in their daily lives.
- Each group shares their examples and explains how they think AI works in these instances.

5. **Wrap-up (5 minutes):**

- Summarize the main points from the session.
- Preview the topics for the next session, which will delve deeper into the societal implications and ethical considerations of AI.

Materials Needed:

Computer with internet access
Projector or smartboard for video
Flipchart or whiteboard for brainstorming

Session 2: Societal Implications and Ethical Considerations of AI (45 minutes)

Objective:

- Students will understand the societal implications of AI, including its potential benefits and drawbacks, and explore ethical considerations.

Activities:

1. **Discussion: Societal Implications of AI (10 minutes):**

- Discuss the potential benefits of AI, such as increased efficiency, improved accessibility, personalized learning, and medical advancements.
- Also discuss potential drawbacks, such as job displacement, privacy concerns, and the digital divide.

2. **Video and Discussion Activity: Ethical Considerations (15 minutes):**

- Show a short video that introduces the ethical considerations of AI, including issues of privacy, fairness, and transparency.
- Discuss the concepts presented in the video, encouraging students to share their thoughts and opinions.

3. **Group Activity: Balancing Act (15 minutes):**

- Divide students into groups and present them with hypothetical scenarios involving AI, each with potential benefits and ethical dilemmas.
- Ask each group to discuss the scenario, consider the benefits and drawbacks, and decide what they would do in that situation.
- Each group shares their decision and reasoning with the class.

4. **Wrap-up (5 minutes):**

- Review the key concepts from the session, focusing on the societal implications and ethical considerations of AI.
- Preview the topics for the next session, which will involve applying the concepts they've learned through interactive activities.

Materials Needed:

- Computer with internet access
- Projector or smartboard for video
- Flipchart or whiteboard for group activity

Session 3: Practical Application of AI Concepts (45 minutes)

Objective:

- Students will apply the concepts they've learned about AI in practical settings, using the Minecraft platform and interactive activities.

Activities:

1. **Minecraft Activity #1: Exploring AI in Minecraft (15 minutes):**

- Explain to students how AI is used within the game of Minecraft, guiding mobs' behaviors and interactions.
- Instruct students to observe the behaviors of different mobs in the game, identifying examples of AI in action. They can observe how the mobs react to different stimuli, such as daylight, the player's presence, or other mobs.

2. **Group Activity: Design Your Own AI in Minecraft (20 minutes):**

- Divide students into groups and challenge them to design a simple AI system within Minecraft using Redstone and command blocks. This could be an automated door, a trap, or a farming system.

- Each group should consider what the AI system does, how it uses AI to function, and what triggers it would need to operate.
- Each group presents their AI system to the class, explaining how it works and how it uses AI.

3. Offline Activity: Reflecting on AI in Everyday Life (5 minutes):

- Ask students to consider how the AI they created in Minecraft might translate to real-world AI systems they've learned about, such as home automation systems, autonomous vehicles, or recommendation systems.

4. Wrap-up and Reflection (5 minutes):

- Review the main points from the session and from the entire unit on AI.
- Ask students to reflect on what they've learned about AI, how it affects their lives, and how they might use AI in the future.
- Encourage students to share their reflections with the class, promoting a discussion about the role and potential of AI in our society.

Materials Needed:

- Computers with Minecraft Education Edition and internet access
- Flipchart or whiteboard for reflection activity