Introduction to Artificial Intelligence (AI)

Learning Objectives

1. Introduce students to the basic concepts and applications of Artificial Intelligence (AI) in various industries.

2. Familiarise students with key terms and technologies related to AI, such as machine learning and data analysis.

3. Stimulate students' curiosity and interest in the field of AI.

4. Encourage critical thinking and discussion about the impact of AI on society.

5. Introduce students to the various applications of artificial intelligence in creative fields, such as voiceover creation, essay writing, and art and design.

6. Educate students on the ways in which Artificial Intelligence (AI) supports individuals who are starting a new business.

7. Students will understand the value of AI-enabled market research, automation tools, and personalised customer experiences in the entrepreneurship journey.

8. Educate students on the ways in which Artificial Intelligence (AI) is integrated into our daily activities and the impact it has on simplifying and improving our lives.

9. Students will understand the key applications of AI in virtual assistants, transportation, and healthcare, and how AI algorithms are transforming these areas.

45 - 60 minutes

Introduction to Artificial Intelligence (AI)

Materials Needed

- ✓ SharkSkillz WebApp
- ✓ Access to computer/tablet
- ✓ Whiteboard
- ✓ Paper for Posters
- ✓ Notepad or exercise book to take notes

Artificial Intelligence (AI)

Introduction
10 minutes

1. Greet the students and introduce the topic of Artificial Intelligence and its significance in making progress. Enter Stage 1 of the SharkSkillz A.I. Skillz ocean. Play the three lessons audio to the class. Start a discussion by asking students if they have ever thought about A.I. and take a few responses.

Explanation of AI & Its Applications
5 minutes

1. Provide a clear definition of AI and its focus on creating intelligent machines that can perform tasks requiring human-like intelligence.

2. Discuss the various applications of AI in different industries, such as healthcare, finance, transportation, and entertainment.

3. Use real-life examples to help students understand how AI is used in image recognition, speech processing, virtual assistants, and autonomous vehicles.

Key Terminology and Technologies in AI
15 minutes

1. Present key terms related to AI, such as machine learning, algorithms, and data analysis.

2. Students may like to write them down.

3. Provide simple explanations and examples to help students grasp these concepts.

Artificial Intelligence (AI)

Group Activity: AI Applications ⏱ 30 minutes

1. Divide students into small groups.

2. Assign each group with one specific industry (e.g., healthcare, finance, transportation) and ask the groups to brainstorm and discuss potential AI applications within their assigned industry. They will create a poster or PowerPoint presentation.

3. Encourage groups to think creatively and consider the benefits and challenges associated with implementing AI in their chosen field.

Discussion and Critical Thinking ⏱ 10 minutes

1. Facilitate a class discussion to share the AI applications suggested by each group.

2. Encourage students to reflect on the impact of AI on society, discussing the potential benefits and ethical considerations.

3. Promote critical thinking by asking questions such as: "What are the advantages and challenges of using AI in these industries?" and "How do you think AI will shape our future?"

Exploring the Creative Possibilities of Artificial Intelligence

Introduction   ⏱ 10 minutes

1. Greet the students and introduce the topic of Creative possibilities of A.I. and its significance in making progress. Enter Stage 2 of the SharkSkillz A.I. Skillz ocean. Play the three lessons audio to the class.

2. Start a discussion by asking students if they have ever thought about creative use of A.I. and take a few responses.

Overview of AI in Creative Fields   ⏱ 10 minutes

1. Present the information that was provided about AI in voiceover creation, essay writing, and art and design.

2. Discuss with students the benefits of using AI-based tools for these creative tasks, such as time and resource efficiency, improved quality, and accessibility.

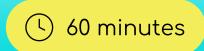3. If possible, showcase A.I. creative tools for the class.

Activity: Voiceover Creation   ⏱ 10 minutes

1. Divide the students into pairs or small groups.

2. Assign each group a specific topic or theme for which they need to create a short voiceover.

3. Instruct the students to use an AI-powered text-to-speech tool to generate the voiceover.

4. Allow time for students to work collaboratively and create their voiceover content.

5. Once completed, ask each group to present their voiceover to the class, and discuss their experience using the AI tool.

Exploring the Creative Possibilities of Artificial Intelligence

Activity: AI-powered Essay Writing
10 minutes

1. Discuss with the students the challenges they may face when writing an essay, such as grammar errors and finding suitable topics.

2. Introduce an AI-powered writing tool or demonstrate an online writing platform that utilises AI capabilities.

3. Ask students to select a topic and use the AI writing tool to generate a paragraph or essay outline.

4. Prompt students to share their experiences using the AI tool, discussing the benefits and limitations they encountered.

Activity: AI in Art and Design
10 minutes

1. Show examples of AI-generated designs or artworks, showcasing how AI can assist and inspire artists and designers.

2. Allow students time to explore an AI-powered design platform or tool.

3. Ask students to create their own design, logo, or visual composition using the AI tool.

4. Encourage students to reflect on their experience and the level of creative input they felt they had with the AI tool.

Conclusion and Discussion
5 minutes

1. Bring the class back together for a final discussion about the impact of AI in creative fields.

2. Ask students to share their thoughts and ideas on the benefits and challenges of using AI in creative processes.

3. Discuss ethical considerations surrounding the use of AI, such as the potential impact on traditional roles in the creative industry.

Harnessing Artificial Intelligence to Start and Scale a New Business

Introduction   ⏱ 10 minutes

1. Greet the students and introduce the topic of Harnessing A.I. and its significance in making progress. Enter Stage 3 of the SharkSkillz A.I. Skillz ocean. Play the three lessons of audio to the class.

2. Start a discussion by asking students if they have ever thought about A.I. in business and take a few responses.
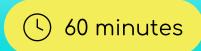
Overview of AI in Starting a New Business   ⏱ 10 minutes

1. Present the information provided about AI in market research, automation, and personalised customer experiences.

2. Foster a class discussion on the advantages of leveraging AI in these areas and how they can positively impact a new business venture.

Activity: AI-powered Market Research   ⏱ 20 minutes

1. Divide the students into small groups or pairs.

2. Assign each group a specific business idea or industry.

3. Instruct the groups to research and compile market insights and trends using AI-powered tools or platforms.

4. Provide a list of key questions for them to answer during their research, such as target audience demographics, competition, and market size.

5. Allow time for the groups to present their findings, discussing the role of AI in obtaining valuable market insights.

Harnessing Artificial Intelligence to Start and Scale a New Business

Activity: AI-powered Automation   ⏱ 15 minutes

1. Discuss with the students the various operational tasks involved in running a business, such

2. As customer support, inventory management, and administration.

3. Introduce automation tools, specifically AI-powered chatbots or business management software, that can reduce the need for human intervention and streamline operations.

4. In small groups, have students brainstorm and list specific operational tasks that could be automated in their assigned business scenario.

5. Ask each group to share their ideas with the class, discussing the benefits and potential challenges of implementing AI-powered automation.

Conclusion and Discussion   ⏱ 5 minutes

1. Recap the main points covered in the lesson, emphasising the value of AI in supporting entrepreneurs in starting and scaling their businesses.

2. Facilitate a class discussion on the potential challenges or concerns related to using AI in business operations.

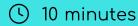3. Encourage students to reflect on how they can leverage AI in their future entrepreneurial endeavours.

AI Enhancing Everyday Life

Introduction
🕐 10 minutes

1. Greet the students and introduce the topic of everyday uses of A.I.

2. and its significance in making progress. Enter Stage 14 of the SharkSkillz A.I. Skillz ocean. Play the three lessons of audio to the class.

3. Start a discussion by asking students if they have ever thought about everyday uses of A.I. and take a few responses.

Overview of AI Virtual Assistants
🕐 10 minutes

1. Present the information provided about virtual assistants powered by AI and their features like natural language processing and machine learning algorithms.

2. Discuss with students how virtual assistants can streamline everyday tasks and provide convenience and efficiency.

3. Invite students to share any personal experiences with virtual assistants and how they have benefited from them.

Activity: AI in Transportation
🕐 15 minutes

1. Discuss the role of AI in transportation, specifically in navigation apps like Google Maps and Waze.

2. Explain how these apps analyse real-time traffic data and utilise AI algorithms to predict optimal routes and provide accurate travel time estimates.

3. In small groups, have students brainstorm and discuss other potential applications of AI in transportation, such as autonomous vehicles.

4. Allow each group to share their ideas, fostering a class discussion on the benefits and challenges associated with integrating AI into transportation.
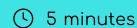
AI Enhancing Everyday Life

Activity: AI in Healthcare

20 minutes

1. Discuss the impact of AI in healthcare, focusing on how it enhances patient care and diagnosis.

2. Explain how AI algorithms can analyse medical data to assist doctors in making accurate diagnoses, predicting risks, and recommending treatment plans.

3. In small groups, assign each group a specific healthcare scenario (e.g., diagnosing a disease, monitoring patient health, offering 24/7 support).

4. Ask the groups to brainstorm and outline how AI can be applied to enhance the selected healthcare scenario.

5. Allow each group to present their ideas, facilitating a class discussion on the potential benefits and ethical considerations of AI in healthcare.

Conclusion and Discussion

5 minutes

1. Recap the main points covered in the lesson, emphasising the various ways in which AI is integrated into our everyday activities.

2. Facilitate a class discussion on the benefits, challenges, and potential impact of AI in our lives.

3. Encourage students to consider how AI may continue to shape and improve our daily activities in the future.

5+ Plan

Conclusion

1. We recognise that by this stage teachers will have adapted lessons to suit their class. Please do finish the A.I. Skillz ocean and finish your research/ projects with your class. You might even encourage your pupils to explore these ideas outside of the classroom. Some pupils may even become the next A.I. genius in their personal time! Try to encourage your students to become interested in these concepts. We hope you enjoyed using SharkSkillz WebApp! Please check out our other lessons series lesson plans for every other ocean.

2. Please use the quest section of our WebApp throughout but especially at the end of this lesson series to test if you remember your SharkSkillz.

Note

1. Adjust the lesson content and activities according to the students' age and educational level. Encourage active participation through group discussions, brainstorming, and sharing personal experiences. Adapt the presentation of the content based on the students' prior knowledge and provide additional examples or real-life case studies as necessary. Monitor the discussion to ensure diverse perspectives and guide students to think critically about the social and ethical implications of AI.

Possible Homework

Ask students to research and present on a specific AI-powered application or technology that interests them beyond the examples covered in the lesson. For instance, AI in home automation, personal finance, or entertainment. Have them explore how AI is transforming these areas and how it benefits individuals in their daily lives.