



Lesson Series

🕒 45 - 60 minutes

Introduction to Cryptocurrency

Learning Objectives

- To introduce the concept of cryptocurrency and the technology behind it.
- To understand the advantages and disadvantages of cryptocurrencies.
- To explore the popular cryptocurrencies and their uses.
- To recognise the risks and regulatory challenges associated with cryptocurrencies.
- To introduce the concept of the blockchain and its functionalities To understand the decentralised, transparent, and secure nature of the blockchain.
- To explore the potential applications of the blockchain beyond cryptocurrencies.
- To introduce students to the concept of Bitcoin as a digital currency.
- To explain the decentralised nature and limited supply of Bitcoin.
- To discuss the advantages and potential risks associated with Bitcoin.
- Introduce students to the concept of Non-Fungible Tokens (NFTs).
- Explain the functionalities of NFTs in relation to digital art, music, and other creative content.
- Discuss the impact of NFTs on artists, creators, and collectors.

Materials Needed

✓ SharkSkillz WebApp

✓ Whiteboard

✓ Access to computer/tablet



Introduction to Cryptocurrency

Introduction

🕒 10 minutes

1. Greet the students and introduce the topic of cryptocurrency and its significance in the economy. Enter Stage 1 of the SharkSkillz Crypto Skillz ocean. Play the three lessons audio to the class.
2. Start a discussion by asking students if they have ever thought about cryptocurrency and take a few responses.

Definition and Technology

🕒 15 minutes

1. Provide a clear definition of cryptocurrency as a digital or virtual currency that uses cryptography for security.
2. Explain the decentralised nature of cryptocurrencies and relate it to the absence of governmental or financial institutions' control.
3. Illustrate the technology behind cryptocurrencies by introducing blockchain as a distributed ledger that records transactions and ensures their validity.
4. Use visual aids or examples to help students grasp the concepts more easily.

Types of Cryptocurrencies

🕒 25 minutes

1. Discuss some of the popular cryptocurrencies, such as Bitcoin, Ethereum, Litecoin, and Ripple. Highlight the unique features and uses of each cryptocurrency, including their purposes beyond being a medium of exchange.
2. Facilitate a discussion on the potential application of cryptocurrencies in industries like finance, supply chain management, and healthcare.
3. Get students to research and take notes on a Cryptocurrency or token of their choice.



Introduction to Cryptocurrency

Conclusion

🕒 5 minutes

1. Summarise the main points covered in the lesson, emphasising the definition of cryptocurrency, its uses and advantages, as well as the associated risks and regulatory challenges.
2. Encourage students to explore further resources on cryptocurrencies if they are interested in learning more.
3. Allow time for students to ask any remaining questions and facilitate a brief discussion on their thoughts and opinions about cryptocurrencies.



Exploring the Blockchain

Introduction

🕒 10 minutes

1. Greet the students and introduce the topic of exploring the blockchain and its significance in the economy. Enter Stage 2 of the SharkSkillz Crypto Skillz ocean. Play the three lessons audio to the class.
2. Start a discussion by asking students if they have ever thought about the blockchain and take a few responses.

Definition and Functionality

🕒 20 minutes

1. Provide a clear definition of the blockchain as a digital ledger that records transactions in a secure and transparent manner.
2. Explain the concept of decentralisation, highlighting that the blockchain is not controlled by a central authority but instead maintained by a network of computers.
3. Introduce the term "block" and explain that each block contains a set of transactions. Once a block is added to the blockchain, it cannot be altered or deleted.
4. Use visual aids or examples to help students grasp the concepts more easily.
5. Discuss the security features of the blockchain, explaining how transactions are verified by a
6. network of computers using complex algorithms.
7. Emphasise that due to this verification process, it is nearly impossible for anyone to tamper with the blockchain, ensuring the integrity of recorded transactions.



Exploring the Blockchain

Potential Applications

🕒 20 minutes

1. Explore the potential applications of the blockchain beyond cryptocurrencies in various sectors. Discuss examples such as secure voting systems, supply chain management, digital identities, and intellectual property.
2. Get students to pick their favourite potential use and write a few paragraphs on why it needs to be secure.
3. Facilitate a discussion on the advantages that the blockchain could bring to these industries, such as increased efficiency, improved transparency, and enhanced security.

Critical Thinking and Discussion

🕒 10 minutes

1. Encourage students to critically think about the limitations or challenges that the blockchain technology might face in different applications.
2. Facilitate a discussion that encourages students to consider the ethical, legal, and social implications of the blockchain in relation to privacy, data ownership, and power distribution.



Understanding Bitcoin

Introduction

🕒 10 minutes

1. Greet the students and introduce the topic of Bitcoin and its significance in the economy. Enter Stage 3 of the SharkSkillz Crypto Skillz ocean. Play the three lessons audio to the class. Start a discussion by asking students if they have ever thought about Bitcoin and take a few responses.

Definition and Functionality

🕒 15 minutes

1. Provide a clear definition of Bitcoin as a decentralised digital currency that is not controlled by any government or financial institution.
2. Explain briefly how Bitcoin is based on blockchain technology and the concept of distributed ledger for recording transactions.
3. Use visual aids or examples to help students grasp the concept more easily.
4. Explain the concept of limited supply in relation to Bitcoin. Highlight that there will only ever be
5. 21 million Bitcoins in existence.
6. Allow students to ask questions or share their thoughts on the advantages and implications of limited supply.

Advantages and Disadvantages of Bitcoin

🕒 20 minutes

1. Get students to create SWOT analysis tables on Bitcoin. They are welcome to draw pictures in their chart if they feel it would help them understand.



Understanding Bitcoin

Conclusion

🕒 10 minutes

1. Summarise the main points covered in the lesson, emphasising the definition, functionality, limited supply, advantages, and risks associated with Bitcoin.
2. Encourage students to explore further resources on Bitcoin if they are interested in learning more.
3. Allow time for students to share their SWOT analysis tables.



Introduction to NFTs

Introduction

🕒 10 minutes

1. Greet the students and introduce the topic of NFT's and its significance in the economy. Enter Stage 9 & 10 of the SharkSkillz Crypto Skillz ocean. Play the three lessons audio to the class. Start a discussion by asking students if they have ever thought about NFT's and take a few responses.

Definition and Functionality of NFTs

🕒 15 minutes

1. Provide a clear definition of NFTs as non-fungible tokens that represent ownership of a unique item or piece of content.
2. Explain that NFTs are different from cryptocurrencies like Bitcoin as they cannot be exchanged for other tokens.
3. Discuss how NFTs are stored on a blockchain, which ensures their authenticity and prevents duplication or alteration.
4. Use visual aids or examples to help students grasp the concept more easily.
5. Explain how NFTs are commonly used to represent digital art, music, and other creative content. Highlight that NFTs enable artists and creators to monetise their work by selling ownership of the original digital file directly to collectors.
6. Discuss the benefits of NFTs for artists, such as bypassing intermediaries like galleries or auction houses and having greater control over their own work.
7. Allow students to ask questions or share their thoughts on the impact of NFTs on the art industry.

NFTs creation

🕒 20 minutes

1. Students should think of and create their own NFT's. It starts with brainstorming and then possibly creating a MVP to show class. This project could extend beyond 20 minutes!



Introduction to NFTs

Conclusion

🕒 5 minutes

1. Summarise the main points covered in the lesson, emphasising the definition and functionality of NFTs, their impact on art and collectibles, and potential considerations and implications.



Lesson 05

🕒 55 minutes

5+ Plan

Conclusion

1. We recognise that by this stage teachers will have adapted lessons to suit their class. Please do finish the Crypto 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 Beppe 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 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.

Final Note

1. It is important to ensure that the content and level of complexity of the lesson are appropriate for the specific grade level or student background. Additional activities or discussions can be incorporated to accommodate different learning styles and strengthen understanding.

Possible Homework

1. Create a poster or presentation on all of the things learnt in this lesson series. Within which students could explore how they might take what they have learnt and use it in their own life.