



Cryptocurrency Keeper

Lesson Plan

Teacher: Ms. Novicky

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Overview & Purpose

Provide the lesson title and a short (3-4 line) purpose statement expressing your vision for this lesson.

Students will learn about cryptocurrency through creating their own classroom cryptocurrency and implementing this cryptocurrency as a token economy in the classroom in which they work in teams to design a product and purchase necessary supplies with their cryptocurrency for their start up. The project is designed to demonstrate how cryptocurrency works and its role in the transfer of goods.

Objectives

List your 3-5 objectives. Specify the new skills that the students will gain as a result of the lesson. What will students have learned or experienced by the end of the lesson?

1. Define cryptocurrency and give an example of a cryptocurrency.

2. Students will create their own classroom cryptocurrency and token economy to demonstrate understanding of both cryptocurrency and basic economic concepts.
3. Students will engage in the design process to design, make, and sell a product within the boundaries of their set cryptocurrency token economy.
4. Students will practice using a ledger to document cryptocurrency exchanges via Google Sheets.

Materials Needed

Listed below are the materials that will be used for implementation of this lesson. However, this lesson can be adapted to whatever materials you have on hand. It is not necessary to have a vast amount of supplies for students to buy.

1. https://www.youtube.com/watch?time_continue=3&v=kubGCSj5y3k&feature=emb_logo
2. Makerspace materials: 3D printer, sewing machine, electronic cutting machines, exacto knives, paper, cardboard boxes, glue, scissors, vinyl, faux leather, earring hooks, necklace and bracelet cord, fabric, thread, etc. (All of these materials are not required, and students could design a product from just paper, cardboard, scissors and glue. The point of the lesson is exchanging cryptocurrency through a token economy to pay for goods.)

Verification

What 3+ steps did you go through to make sure that your students understood the concepts you taught in your lesson?

1. Formative assessment - Exit slip 2:1:1. At the end of the introduction to bitcoin, students will fill out a 2:1:1....where they explain 2 things they learned, 1 thing they want to learn more about, and one thing they still have a question about or don't fully understand. The teacher will go through the 2:1:1's as a basis for the class discussion.

2. Students will fill out a self-directed learning organizer to justify their design and their ability to work in a group towards a product goal.
3. Students will be judged on their product by the peers via a rubric that examines: the purpose of the product, creativity, originality, craftsmanship, and effort.
4. The Google Sheets blockchain ledger will serve as verification of learning and transactions.

Activity

What activity did you take students through to reinforce the concepts you taught during your lesson?

- 1) Students will get a brief introduction to bitcoin, the most common cryptocurrency:

https://www.youtube.com/watch?time_continue=3&v=kubGCSj5y3k&feature=emb_logo

After the video, students will fill out a 2:1:1....where they explain 2 things they learned, 1 thing they want to learn more about, and one thing they still have a question about or don't fully understand.

- 2) Students will then be introduced to the project. The first step is to work together as a group to create a cryptocurrency name. Have students search for the most popular cryptocurrencies and write their names on one side of the board for idea starters. Next, give each student one post-it note and have them invent a new name and explain why they chose that name. The class will vote on the best name. For more incentive the winning student will receive 5 of the new cryptocurrency.
- 3) Students will maintain their blockchain ledgers in Google Sheets. Each student will have their own sheet to log their ledgers and exchanges, and be able to check, but not edit, other students' sheets as well.
- 4) Students will work in groups of 4 and collaborate on designing a project. They will be able to shop available resources and determine what they need and how much cryptocurrency they have to spend. Each group member will have to determine how much cryptocurrency they want to invest in their group, and calculate what share they hold in the "company" accordingly. They will purchase the supplies with cryptocurrency and make their product. Once they make their product, they can sell the product idea in return for more cryptocurrency, and profits are divided among shareholders. Once they have a project idea, the group

will present the idea to the rest of the class for a Shark Tank like opportunity to recruit investors as well. The product will be judged authentically on marketability and quality. Students will then manufacture and sell their product, documenting all cryptocurrency exchanges on the blockchain ledger.

- 5) Distance learning option - For an all virtual adaptation, students will work virtually to create what I call an EDSY (EDucation) Shop. Students will design their own product to place on our school EDSY website. They need to market their products (could be jewelry, 3D prints, etc.) They will be required to design computer rendering of their products on Tinkercad or Design Studio and post screenshots to our EDSY site. In addition, this cryptocurrency lesson can also be adapted to a token economy reward system, where students who log in and participate in online learning earn so much cryptocurrency for positive behaviors. They can then spend the cryptocurrency in an online reward center where the teacher could mail them the prize of their choosing.

