

Objective

By the end of this lesson, you will have a better understanding of how vending machines work and the science behind them.

Materials and Prep

- A notebook or paper
- A pen or pencil
- A computer or tablet with internet access

No prior knowledge is required for this lesson.

Activities

1. Research: Use the computer or tablet to research how vending machines work. Look for information on how they detect and dispense items, how money is accepted, and any other interesting facts.
2. Diagram: Create a diagram or drawing of a vending machine, labeling its different parts and mechanisms.
3. Role Play: Pretend to be a vending machine and have a friend or family member act as a customer. Practice the interaction between the machine and the customer, including the selection of items and the dispensing process.
4. Design Your Own: Imagine you are inventing a new type of vending machine. Draw a design of your unique vending machine and describe its features and functions.

Talking Points

- **How do vending machines work?** Vending machines use various sensors to detect when someone selects an item. They then use mechanical mechanisms to dispense the chosen item.
- **What happens when money is inserted?** Vending machines have coin and bill acceptors that verify the value of the money inserted. Once the money is accepted, it is stored securely inside the machine.
- **How are items stocked in vending machines?** Vending machines are typically stocked by a person who refills the machine with items. They carefully arrange the items to ensure they fit properly and can be easily selected by customers.
- **Are there different types of vending machines?** Yes, there are various types of vending machines. Some sell snacks and drinks, while others dispense items like toys or even electronics. There are also vending machines that sell fresh food or provide services like printing.
- **What are some challenges vending machines face?** Vending machines can sometimes get jammed if an item gets stuck or if the machine runs out of stock. They also need regular maintenance to keep them in proper working condition.