

Core Skills Analysis

Science

- The student learned about simple machines like levers and ramps through designing the vending machine.
- They explored concepts of gravity and force while testing the functionality of the machine.
- Understanding of friction increased as they adjusted components to ensure smooth movement.
- They gained insights into recycling and sustainability by using cardboard for the project.

Math

- Practiced counting and sorting coins for the vending machine.
- Utilized measurements for precise construction of the machine parts.
- Calculated financial aspects such as pricing of 'products' and making change.
- Developed spatial awareness by arranging the components in the machine.

Arts & Crafts

- Enhanced creativity by designing the vending machine with colorful decorations.
- Improved fine motor skills while cutting and assembling the cardboard pieces.
- Learned about aesthetics and presentation by arranging the products attractively.
- Explored textures and patterns while decorating the machine.

Tips

For further development after the activity, encourage the student to create other cardboard-based projects like a miniature house or a maze. They can also explore the concept of automation by incorporating simple mechanisms like pull strings or wheels into their designs. Additionally, integrating basic electrical circuits using LEDs or buzzers can enhance their understanding of technology and innovation.

Book Recommendations

- [Rosie Revere, Engineer](#) by Andrea Beaty: Follow the story of Rosie, a young inventor, who learns the importance of perseverance and creativity in problem-solving.
- [The Most Magnificent Thing](#) by Ashley Spires: Join the journey of a girl and her assistant dog as they work together to bring her creative vision to life through trial and error.
- [Iggy Peck, Architect](#) by Andrea Beaty: Discover how Iggy, a young architect, uses his passion for building to solve problems and inspire others with his imaginative constructions.