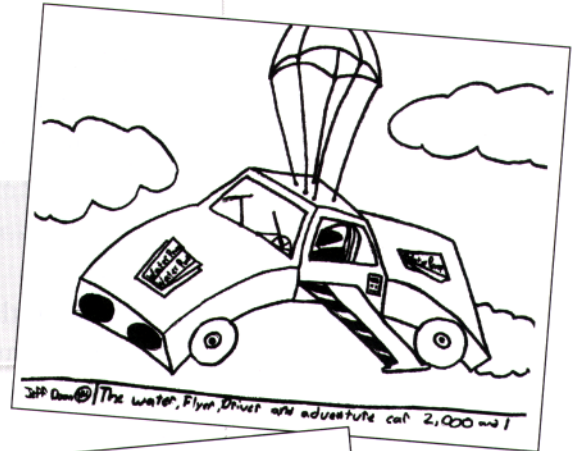


ACTIVITY 20

Cause-and-Effect Inventions

Overview

Students create inventions to extend their understanding of the concept of cause and effect.



Materials

- ⊙ scratch paper
- ⊙ pencil
- ⊙ 1 sheet of 8 1/2" x 11" white paper
- ⊙ ruler
- ⊙ fine-point marker

Name: The Adventure Car 2,000 & 1 By: Jeff Doan
 Problem Solves: It is electric powered and uses no gas. If it has a flat tire, it can fly to help. If it falls in water, it can swim to shore. It has a code box as a door opener. The headlights are waterproof and the car is sealed so water can't get in. If you are late to a meeting because your stuck in traffic, it can fly to your meeting. It bends so it can parallel park even if it is a 1 cm space. The body of the car is like rubber so if you wreck, it will go back to how it was and the other person's car will be just fine like it was a dream. The windows are bullet proof so if a rock or bullet has hit the window, it won't break. The airbags have a sensor so it fits perfectly for the person in that seat, that will make it so kids 1 and up to adult can sit in the front. The hubcaps are built in the tire so the hubcap won't fall off unless the tire comes off too. The car has a hidden radar so you can tell it where to go and the hidden radar will spot the place and park where you want to. The car's radar can see in color so you can go to sleep while it gets you to where you want it to take you. The car comes with a control so if your lost you can type in a number and the car will find you in less than 10 sec. I think this car will help the environment because it doesn't use gas. I think it would be \$10,000.

Getting Started

- ⊙ Begin with a discussion of cause and effect, citing examples from stories the class has recently read. Ask children to contribute instances of outcomes that result from a character's actions.
- ⊙ Then divide the class into groups of four or five, and encourage students to work cooperatively to brainstorm various examples of cause-and-effect relationships both from literature and their own lives.
- ⊙ Discuss how inventors work with cause-and-effect relationships to make their inventions work.

What to Do

1 Ask students to design a new vehicle that is powered by the energy of one person's movement combined with the energy of the wind, sun, or water. Explain that they should use the scratch paper to work out their design.

2 Once they have finished developing their design, invite students to use a pencil to draw the vehicle on the white paper, tracing over their drawing in fine-point marker for boldness and contrast.

3 On the back of the paper, ask students to name and write about their invention, explaining how it works and what effects it will have on people's lives.

Extended Learning

If possible, encourage students to use a computer to do the written part of the activity. After printing out the explanation of the invention, they can glue it to the back of the illustration. Students might also work in cooperative groups to create a three-dimensional model of the invention of their choice.

Ways to Share

- ④ Cause-and-Effect Inventions make an interesting display for a science room or area.
- ④ Invite students to combine their Cause-and-Effect Inventions with a story that predicts what their life might be like in the future.