



Design A Future Vehicle (Multiple Modes)

LENGTH: Four 40 Minute Class Periods

CURRICULUM: Art, Language Arts

OBJECTIVES: Student will have developed a drawing of their idea of a future vehicle to be used for travel on land, water, air, or space after a discussion about propulsion, suspension, guidance, control, support, structure, and materials. The students will also be able to make decisions about transportation using the transportation model.

EDUCATIONAL LEVEL: Grades 5 - 6

MATERIALS:

1. paper
2. pencils
3. Reference materials: Textbook, *Transportation* by Anthony E. Schwaller

PROCEDURE:

1. Conduct a group discussion of the six major technologies in transportation (propulsion, suspension, guidance, control, structure and support).
2. Break into groups of 2-4 students and talk about the 6 major technologies and how they might affect future design of a transportation mode.
3. After the group discussions, the students will draw a design of a future transportation mode (car, bus, train, plane, etc.).
4. The student makes a presentation to the class about the vehicle and the six technologies used.
5. Using the transportation model on page 22 of *Transportation*, the students will discuss how those factors affect decisions about their vehicle and its future use.
6. Create a chart listing two influences in each category --- political, economic, environmental, social, and technological --- about the development and use of their vehicle.

POINTS TO DISCUSS:

1. Vocabulary: propulsion, political, suspension, economic, guidance, environmental, control, social, support, technological, structure