

sk8art

Grade Level:

all grades
web links: middle years to high school

Subject Matter:

visual arts/language arts
web links: physics

Curricular Uses:

This lesson plan, with extended activities, encourages students to consider the function of an object and how its design affects its performance.

Materials/Resources

Required:

- art supplies (pencils, markers, paper; paint, charcoal; modeling clay)
- opt.: computer design program
- online resources (see links)

Evaluation:

Students evaluate each other's designs according to how well these designs fulfill their purpose, as written about and/or reported orally.

Lesson 2 – Design a Skateboard

Overview:

This activity allows students to consider the function and design of a skateboard, while designing their own, using simple art supplies or a computer design program.

Learning Objectives:

- students will think of the function & design of skateboards and design their own
- students, through extended activities, will consider how the design of the parts of a skateboard affects its performance
- students have an opportunity to create short stories around their skateboard design

Procedures:

Students will be asked to design their “dream” skateboard (or bicycle, etc.) This skateboard may assist them in making great achievements, learning a new skill, visiting a foreign land, moving into a different world or time zone, etc. What is it about the skateboard that makes this possible? (Is it jet-propelled, computer operated, etc.) What are the purposes of the individual parts? Have them consider, as well, the overall design and colour of the skateboard.

Extended Activity:

1. Students can design a skateboard for an elephant; for an insect, etc. – using paint, pencil, pastels or collage; in 3-d using modeling clay, found toys, or found scraps; or a design program if available
2. Students take a favourite toy and make it into a sk8board – what do they need to add to the toy? what is it to be used for?; write about it
3. Students write short stories about their adventures (or the adventures of the elephant, mouse, etc.) on the sk8board of their design
4. See lesson plan 1 “Looking at Objects”
5. See web links for physics-related lesson plans

Web Links:

- <http://pbscyberschool.pbs.org> (snowboard design)
- <http://pbskids.org/dragonflytv> (wheel size & performance)
- <http://www.teachervision.fen.com/tv/curriculum> (can wheels cut down on friction?)