

Playground Mapping and Concept Design

Developed by Jenny Wyss

Lesson Description

Mapping is similar to site design in that it represents a simplified 3-D space on 2-D paper. In this in-depth site design lesson, students map and evaluate an existing playground and become designers of a new play space. Thematic design is encouraged, and attention is paid to the needs of a particular group of users, identified by the student artist.

Grade Level Secondary (with adaptations for Elementary & Middle school)

Time Required 2-3 classes (approximate)

Secondary Interdisciplinary Connections

Maryland ELO for Visual Arts, High School

- 1.0 Perceiving and Responding: Aesthetic Education
- 3.0 Creative Expression and Production

Core Learning Goals for Math, High School

- 2.0 Geometry, Measurement, and Reasoning

VSC Interdisciplinary Connections

Visual Arts, Pre-K-8

- 1.0 Perceiving and Responding: Aesthetic Education
- 3.0 Creative Expression and Production

Math, Pre-K-8

- 2.0 Knowledge of Geometry
- 3.0 Knowledge of Measurement

Lesson Objectives

After completing this lesson, students will be better able to:

- 1) Examine how designers and their designs function as an integral part of our society.
- 2) Make connections between map making and site design by mapping an existing space and then altering it.
- 3) Demonstrate that design means incorporating both the process and its final results.
- 4) Integrate functional design with human needs, based on a particular group of users.
- 5) Make connections between art and math through the design and mapping process.

Vocabulary

Map -- a document that visually represents particular features of a specific place or thing

Design -- images and objects that have been deliberately arranged, sized, framed, and edited for function; a practical and visual art

Theme -- the unifying subject of a group or work of art

Form -- the shape and structure of an object

Function -- the action for which a thing is specially fitted or used or for which a thing exists

Lesson Materials

Scratch paper for preliminary sketches

Measuring tape

Pencils and erasers

Large sheets of ¼" grid paper

Rulers

Large sheets of drawing paper

Coloring materials, as necessary

Catalogs of playground equipment companies (ask your school district)

Procedures

Prep work

Collect catalogs from playground equipment companies for real world examples of playground design (ask your school district). Also, blueprints of outdoor spaces and parks could be used as design inspiration, if available.

Guiding Discussion

These guiding questions could also be presented as a reflective writing exercise, followed by having

the students sketch their elementary school playground from memory.

- What memories do you have of being on your elementary school's playground?
- Think about the layout of the playground. Were there places that were popular and crowded? Empty and unused? Why do you think this was the case?
- What was it about the fun places that made them so popular? Was it an engaging structure, or a wide open space?

Leading up to the crux of the process, ask:

- What did you wish could have been a part of that playground? Why?
- You have been chosen to design a new elementary school playground. Limited only by your imagination, re-design an existing play space based on a unifying theme of your choice.

Exercise

First, students will need to visit a local playground site and map it to scale. Measuring tape, grid paper and rulers can be used for this step. This would be easiest in teams of 3; with two students using the measuring tape, and the third recording dimensions and locations on grid paper. (For example: 1" on paper could equal 4' of real space.) The playground size, distances between locations, and sizes of its main features should be noted. Students should also take notes that relate to the following prompts to help them study the space and its use:

- Identify the users of this space and their needs.
- Analyze the current space to determine what can or should be changed, and why.
- What can be functionally improved? Keep in mind the targeted users.
- What can be artistically improved? What theme could you develop to guide these ideas?
- * If school children are present on the playground, students could conduct a survey to identify children's needs and interests.

After an analysis of the current play space, students will address points of concern and inspiration for their new design. Based on personal interests, students will develop a thematic approach to their design. Students will create sketches of their ideal playground facilities and plot out the location of its features, as modeled in the first exercise. An elevation drawing may also be helpful for students to visualize the overall space. Encourage the use of drawing individual designs for the playground's features (like climbing structures, games, and swing sets) to be included along with the map. For an additional challenge, students could be given a 'budget' on which to base their 'spending'.

Points to consider include:

- What is the focus or theme of the playground?
- What will remain the same? What would you want to get rid of? How does that fit with your theme?
- How will the experience of using the playground be altered by the thematic element?
- What does this map say about you and your preferences? About you as a designer?

Closure/Assessment

Students will submit the final version of their design to the class as a presentation, explaining their design process, the problems and surprises they encountered along the way.

Resources

Bibliography: Zande, Robin Vande. *Design, Form, and Function in Art Education*. Art Education, July 2007. 60, 4.

Eisner, Michael. *Walt Disney Imagineering : A Behind the Dreams Look at Making the Magic Real*. Disney Editions, 1998.

Images: Classroom examples could include blueprints, theme park schematics, etc.

On the web: Learn about design and engineering students who are now "Imagineers" for Disney: <http://www.tufts.edu/home/feature/?p=disney>

Adaptations

Elementary levels:

To simplify this activity, younger students may skip the preliminary “to-scale” playground mapping. Since it is a space they are already familiar with, map the school’s existing playground from memory. The teacher can do this on the blackboard with contributions and directions from the class. Based on this example exercise, students can develop a thematic drawing of their individual ideal playgrounds. The thematic approach is encouraged. Younger students may find success through working in teams.

Middle School levels:

Since middle school students may come from different elementary schools, their approach can be more similar to that of the high school students – based on drawings from memory. An emphasis on scale can still be included, especially if a trip to a playground is possible. The thematic approach is encouraged, and this level may also find success through working in teams.