

A MATH AND ARTS CURRICULUM GUIDE: WHAT CAN THE HIGH LINE TEACH US ABOUT PARK DESIGN?

Grades 6 and 7

Materials:

Period 1:

- PowerPoint presentation
- Park design brainstorming worksheet

Period 2:

- Paper
- Pencils
- Colored pencils
- Spec worksheet

Periods 3 – 7:

- Various art supplies for constructing the model, but might include:
 - Balsa wood
 - Cardboard
 - Foam board
 - Glue
 - Tempera paint
 - Construction paper
 - Pipe cleaners
 - Tissue paper
 - Glitter
 - Sand
 - Tape
 - Crayons
 - Markers

Period 8:

- Students' models

LESSON GOALS

Students will:

- Learn that the High Line was built in the 1930s to carry freight along Manhattan's west side
- Learn that the High Line is now open as a public park
- Learn that all parks are designed
- Learn some of the components of park design

- Equipment
- Athletic fields
- Variety in plantings
- Water elements
- Look at images of different parks to consider how their designs differ from one another
 - Central Park
 - Gantry Plaza State Park
 - Marine Park
 - Socrates Sculpture Park
- Create a design of a section of the High Line
- Build a model of this design
 - Use measurement skills to create the model
 - Use computational skills to determine how much material will be needed for the construction of the park and the model

Duration: 8 periods

Period 1—PowerPoint presentation with park design brainstorming worksheet.

Period 2—Students incorporate their ideas into a sketch. Students also generate a “spec” sheet that specifies the materials and their amounts that will be required.

Periods 3-7—Students build a model of their design for the High Line.

Period 8—Students present their models to the class, describing the different elements and how they made their model.

PERIOD 1:

Ask students, “What is a park?” Generate a list of parks where students have been. Ask if all parks are the same? (No.) What are some of the components of a park? Brainstorm the different types of parks—parks with sports fields, parks with lakes, parks with wooded areas, parks with playground equipment, parks with gardens, parks with picnic benches, parks with bike paths, parks with theaters, etc. Ask students to think about how each park ended up with different elements? Elicit that every park must be designed. Ask students what is meant by the word “design”. When something is designed, a series of deliberate decisions have been made about the way an object or place looks. Say, “Let’s look at some different parks and see how their designs differ from one another.”

Set up PowerPoint presentation.

Slide 1: Greensward.

Greensward is the name given to the design for Central Park that was created by Frederick Law Olmsted and Calvert Vaux. New York City held a competition for the creation of Central Park. There were 33 entries, and the Greensward was chosen. Help students to identify the Reservoir, the lake, and the various paths. If students are very familiar with Central Park, they might try to find the Mall and the Bethesda Terrace.

Slide 2: Aerial View of Central Park.

Looking south. Identify miscellaneous park components, such as the ball fields, the Metropolitan Museum, etc. Ask students if they saw these things in the original plan. (No. They came later.)

Slide 3: Gapstow Bridge.

Ask students to share some of the activities they have enjoyed in Central Park. The list might include ice skating, seeing a play at the Swedish Cottage, going to the zoo, walking, rollerblading, skateboarding, playing baseball, biking, etc. Explain that people are able to do all these different things in Central Park because it was designed for it.

Slide 4: Gantry Plaza State Park.

Ask students to respond to the image. Not all parks look the same! This park is in Long Island City, Queens. It used to be the place where the gantries (the enormous cranes) were used to lift railroad cars off of barges to transfer them to tracks on the ground. When the gantries were no longer needed, the city decided to turn it into a park. Ask students what types of activities they think people can enjoy at this park?

Slide 5: Playground, schoolyard.

Students should be familiar with this type of park. Ask if they think this park is designed for a specific age group? Why do they think the way they do?

Slide 6: Marine Park, Brooklyn.

Ask students to describe this image. What types of activities do they think happen at this park? (Probably just walking, and maybe boating or swimming.) Ask students if they think this is the type of park where people would go to play basketball? (Probably not.) Reiterate that it was designed for specific activities.

Slide 7: Socrates Sculpture Park.

Have students describe what they see in this image. Explain that some parks have unusual components, like this park, which has different sculptures done by different artists. Do they think these artworks are meant for people to climb, sit on, and interact with them? (Yes, it is different from sculptures in a museum.)

Slide 8: Promenade Plantée.

Ask students what type of activity probably happens in this park? (Walking.) What is it about the design that tells them that this park is for walking and enjoying nature? (The path, the way the greenery encloses the path, the two people in the distance, the lack of any other type of park equipment.)

Slide 9: The High Line.

Ask students if they are familiar with the High Line. Some may be, and others may not be. Explain that it is an elevated train line that was built to carry cargo on the west side of Manhattan. It fell into disuse in the 1980s, and now it is a park. (It was built in 1934 as part of a program called the West Side Improvement to ameliorate heavy shipping traffic on Manhattan's west side. At that time, the west side of Manhattan was NY's

center of freight traffic—ship, train, and truck—and the streets were clogged with all manner of conveyance. Freight trains actually ran at grade along portions of 10th, 11th, and 12th avenues, and were a public nuisance as well as safety hazard. The High Line was built to get the freight trains off of the streets. It begins at 34th Street and runs to Gansevoort Street (a southern portion was previously demolished) between 10th and 11th Avenues. By 1980, the High Line had become defunct, and it sat idle for more than 20 years. In the late 1990s, threatened with demolition, a grass-roots organization, Friends of the High Line [FHL], formed to preserve this important piece of New York’s industrial history. FHL was successful in saving the structure and it is now open as a public park. FHL now serves as a conservancy, raising funds and operating the park in a partnership with the New York City Department of Parks & Recreation.)

Slide 10: The High Line.

Ask students what they think happened when the High Line sat unused for many years? (Many different types of plants grew there; small animals and insects made it their home.) Tell students that this is what the High Line looked like when some New Yorkers decided that it would make a great park. Do the students think it makes a good park? What were the aspects of the High Line that suggested it could become a park?

Slide 11: The High Line, looking toward the Starrett-Lehigh Building.

Another view of the High Line before it was turned into a park. Explain that a group of New Yorkers, who wanted to turn the High Line into a park got together and called themselves Friends of the High Line (FHL). FHL knew they wanted a park, but what kind? A park for soccer? A park for swimming? A park for amusements? They didn’t know what to do, so they had a contest. Over 720 people from all over the world submitted ideas. Tell the students that now they will have a chance to design their ideas for what type of park the High Line should be.

Distribute the park design brainstorming worksheet. Divide students into groups of three or four. Have them work together to go through sheet.

DESIGNING AND PLANNING

PERIOD 2:

Tell students that they are going to take their ideas and now turn them into a sketch. Working in their same groups, have them develop a sketch for their park on the High Line. They should draw a map view that shows where the different activities or components will be.

After the students have made their map sketches, explain that they need to figure out what types of materials they will need to build this model, and also, to build the real park (as they envision it). Distribute the spec worksheet. Tell the students that the High Line is 7.5 meters wide and 2,330 meters long. Depending upon what you are using in your

classroom, they may use metric figures or convert these into standard figures for the purpose of filling out the spec worksheet.

Students work in groups to fill out the spec worksheet.

MODEL BUILDING

PERIODS 3 – 7:

Using the students' data, they will build a model of the High Line. They will only be building a section of the High Line, one that represents one city block. They may use cardboard, construction paper, balsa wood, glue, pipe cleaners, paint, etc. The amount of material needed for the models will be determined by the students' own calculations. Each session, they will work on their model. Students should start by constructing the structure itself, and then adding any recreational components (like slides, paths, etc.) As they advance in their work, they should add decoration that indicates any plantings that the students are including.

PRESENTATION

Period 8:

Students present their model to the class, describing their design ideas, the elements they included, and how they built their model.

PARK DESIGN BRAINSTORMING SHEET

Grades 6 and 7

Group Member Names _____

Date _____

Instructions: With your group members, answer the following members.

1. What types of activities would your group like to see on your design for the High Line?

_____	_____
_____	_____
_____	_____

2. What types of special equipment will be on your group's High Line?

- ☐ Bike path
- ☐ Swimming pool
- ☐ Sports area
- ☐ Eating area
- ☐ Walking path
- ☐ Playground equipment
- ☐ Garden
- ☐ Entertainment area
- ☐ Other _____

3. What types of plantings does your group imagine?

- ☐ Mostly trees
- ☐ Wild grass
- ☐ Flowers
- ☐ Coniferous trees
- ☐ Cut grass
- ☐ Shrubs
- ☐ Deciduous trees
- ☐ Native plants
- ☐ Other _____

4. What types of materials will be used for walkways?

- ☐ Concrete
- ☐ Wood planks (as in a boardwalk)
- ☐ Slate
- ☐ Asphalt
- ☐ Stone
- ☐ Other _____

5. Will your group's design for the High Line be the same for the length of the park, or will there be different sections? _____

PARK DESIGN SPEC SHEET

Grades 6 and 7

Group Member Names _____

Date _____

Before your group builds its model, you must calculate how much of the various materials you will need. You must also determine how much of the *real*/materials would be required for the actual High Line, if you were really building this park. The High Line is 7.5m wide, and 2,330m long. (e.g., if you want concrete paths, you will need _____ of gray construction paper to represent the path, and _____ actual concrete to build the actual path.) Calculate your amounts in square meters, square centimeters, square feet, square inches. You may also use kilograms, grams, pounds, or ounces.

Materials for model

Amount required

Materials for High Line

Amount required
