COOPER HEWITT

DESIGN K-12

REIMAGINING COMMUNITY SPACES

TEACHER RESOURCE PACKET

Smithsonian Design Museum

COOPER HEWITT
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September 20, 2016

Dear Educator,

Thank you for registering for Design Field Trips! This exciting program is designed to present Cooper Hewitt, Smithsonian Design Museum's compelling content to your class(es) through an interactive tour and workshop.

Students are invited to discover our temporary exhibition, *By the People: Designing a Better America,* to learn about collaborative projects that were inspired by communities solving public challenges through design. On this 45-minute inquiry tour of the exhibition, they will learn how design is solving national issues of social and economic inequality. Also included in the program is a 45 minute workshop where students will be given the opportunity to explore the design process by collaborating to redesign a community space.

This packet provides several resource activities to help your students prepare for the program and ideas to continue integrating design thinking connections into your classroom. We enjoy receiving feedback from teachers about their experience with the program, so within a month of your museum visit you will be e-mailed a brief survey. Thank you in advance for taking time to provide your feedback so that we can continue to offer high-quality programs for all K-12 schools.

Sincerely,

Kimberly Cisneros-Gill   *Schuyler Schuler*

Kimberly Cisneros-Gill   Schuyler Schuler
School Programs Manager   Education Assistant

Activities in collaboration with Museum Educator, Cara-Lynne Thomas.

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PREPARING FOR YOUR DESIGN FIELD TRIP

During your Design Field Trip, the Design Educator assigned to your group will need your support in helping students stay on task. You must remain with the group at all times with the Design Educator. Please review the following museum guidelines and share them with your chaperones and students.

ARRIVAL & DEPARTURE

- Please arrive 10 minutes before your scheduled start time to check in; you will be greeted at the main entrance (91st Street between Fifth and Madison Avenues)
- Non-NYC teachers with a cash payment, please remit to the Visitor Experience Desk
- Coat check will provide large bins to quickly store and retrieve coats and backpacks
- Please call your bus in advance to meet you in front of the main entrance, and exit through the main entrance

MUSEUM RULES AND POLICIES

- Please do not touch the objects or lean on the walls; view the objects at a safe distance
- Use only pencils for taking notes or sketching; pens are not permitted
- Food, drinks, and chewing gum are NOT permitted in the museum
- All items entering and leaving the museum are subject to inspection
- Please remain with your assigned group at all times
- Please leave all backpacks and large purses on the bus or at the coat check
- Photography without flash is welcomed; no tripods or selfie-sticks, please

TAKE AN ACTIVE ROLE

TEACHER & CHAPERONES

The classroom teacher and chaperones are essential to the success of a group's visit; they can enhance the success of the tour and the amount of learning that can take place by showing active interest in the objects while supervising student behavior.

- Please ensure that you and your group of students (10 students or fewer per chaperone) stay together during your time in the museum (this includes the Shop)
- You and the group chaperones are responsible for keeping track of each student in your group, and for students' proper behavior (including their respect of museum rules and policies)
- If you have questions, ask a museum staff member for help

STUDENTS

- Students will be encouraged to share their ideas and work in teams
- Students must stay with their chaperones at all times while in the museum and Shop
- Please do not allow students to touch anything unless signs, museum staff members, or designated volunteers let you know it's okay

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DESIGN THINKING CONNECTION

The following pages include pre- and post-Design Field Trip activities. The pre-visit activities are suggestions for how to help your students prepare for their trip; they are designed to introduce students to concepts that will be discussed during the program. The post-visit activities are suggestions for how to extend your students' thinking beyond the program and reinforce your classroom curriculum. For teachers who would like additional ideas, we recommend our free Educator Resource Center (ERC), which offers 400 design-focused lesson plans (available at: http://dx.cooperhewitt.org/lesson-plans/).

PRE-VISIT ACTIVITIES

CREATING COMMUNITY | K-5

SUBJECTS: Social Studies, Math, Art| DESIGN PROCESS: Getting Ideas, Prototyping and Making

ACTIVITY TYPE: Survey, Discussion and Art-Making | 45 mins.

YOUR DESIGN CHALLENGE

How might we share our classroom values with others in our school?

Understanding individual and group values is important for building a community. Recognizing that each class is unique helps students value their class community.

As a whole class discussion or individually, students answer the survey questions below. Using the guiding questions and their responses, discuss what is important to the class, what they value, and what makes them unique. Record responses on the board to build a list of characteristics and values that describe the class. Following discussion, create a banner to go on the classroom door that shows what values are important to this class, and what makes this class special and unique to others in the school.

Grade Level Modifications

- K-2: As a whole class, ask the students the survey questions. Create a bar graph for each set of responses. Discuss the answers, and have students point out similarities and differences between answers. Younger students can count the number of responses on each bar of the graph. For the banner, they might choose to feature the top three common responses from the graph.
- 3-5: Students interview each other in pairs. As a class, students can record responses on chart paper. Individually or in small group, they can create bar graphs and compare the information to decide what is important for the class banner.

GUIDING QUESTIONS

Survey Questions:

1. What is your favorite thing to do at school?
2. What is your favorite subject? Why?
3. What do you like about being in our class?
4. What makes you proud to be part of our school community?

5. What 3 characteristics would you use to describe our class?
6. What is unique about our class?
7. What would you like to change about our classroom?
8. What is unique about our school?

Discussion Questions Following Survey:

- What do you like about going to school?
- What is special to you about our school?
- Who wants to share what they like about being in our class? Who wrote something similar?
- Why do you like that about our class?
- Who wants to share what they would change about our classroom? Who wrote something similar? Who wrote something different? Why would you change this?
- How do you think changing that would improve our class?
- What is special about our classroom community?
- What characteristic of our classroom is most important to you?
- What is the most important thing we want others to know about our community?
- How can we show how unique the class is?
- How can we turn these responses into pictures?

EXTENSIONS

- Paint a mural about the class community.
- Send the survey home for parents to help students fill out. Add additional questions about the family's cultural identity to learn more about students and the richness of the classroom community. Questions might include: What is special about your family? What is your favorite thing to do with your family? What is your favorite food that your family makes? What special traditions does your family have? Does your family celebrate any holidays? Which ones? Which one is your favorite? Share a story about your family.

MATERIALS AND RESOURCES NEEED

Surveys

Pencils

Chart paper or whiteboard and markers

Supplies for banner: markers, crayons or paint, construction paper, scissors, glue sticks, banner paper

VOCABULARY

See Cooper Hewitt's design vocabulary on Page 13 of the Teacher Resource Packet

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CONNECTING IN OUR CLASSROOM| 6-12

SUBJECTS: Social Studies, English | DESIGN PROCESS: Getting Ideas

ACTIVITY TYPE: Presentation, Discussion and Brainstorming | 45 mins.

YOUR DESIGN CHALLENGE

How might we understand empathy as a tool for design?
Empathy is the ability to understand or take on another's perspective without it necessarily being one's own perspective or experience, or the ability to put one's self in another's shoes. Empathy is used in design to aid designers in finding solutions to problems in ways that focus more deeply on the user and their experience.

Ask students how they would define empathy, and what initial ideas they have about empathy. Have they had any experience with empathy? When? The video the class will be watching demonstrates how much people can relate to each other if they take the time. As a class, watch the video: "Take a Seat, Make a Friend," that centers on a social experiment to encourage strangers to talk to each other, and focuses on the commonalities between people who might seem very different.
https://www.youtube.com/watch?v=HfHV4-
N2LxQ&list=PLvzOwE5lWqhQWsPsW5PQQ5gj5OBewwgUw&index=2

After watching the video, use the guiding questions to discuss empathy, the role of empathy in design, and the importance of connecting to others. Since designers are making something for a specific person (called the user), they need to understand the needs of that person. Students will identify a challenge in their school (such as way-finding/getting lost, or stairs that are too steep and cause students to fall), and work in teams to brainstorm and draw solutions that help everyone in the school including students, visitors, staff, and people with special needs.

GUIDING QUESTIONS

1. About the Video

- What stood out to you during the video?
- Were you surprised by what people told each other? What they had in common? Why or why not?
- Do you think it was easier for people to talk to each other because they are strangers? Why or why not?
- This video focuses on empathy. What do you think of when you hear "empathy"?
- Why do you think empathy is important in our society?
- Designers use empathy as a tool when they're creating their ideas. How do you think empathy or perspective taking helps a designer?

- When designers create a product, do you think they always focus on themselves as the person who will use the product?

2. Exploring empathy as a way to understand our school's needs

- How do you think a higher awareness or understanding of empathy could help our class or school? Alternatively: student could write these responses anonymously on slips of paper and the teacher could read them out loud.
- Do you think the school designers were thinking about all the people who would use the space when they designed the school? Why or why not?
- What challenges do you notice when navigating our school space?
- Without redesigning the whole school or doing other construction, how could we solve those problems?

3. Brainstorming Questions:

- What challenge are you trying to solve?
- What about this problem makes navigating the school difficult?
- How does your idea solve the challenge?
- What have you included in your solution to aid other people?
- How do people benefit from your solution?

VARIATIONS AND EXTENSIONS

- Incorporate empathy activities into the class such as: playing games that help students learn more about each other and their teacher; acting out skits once a week to practice perspective-taking; creating a box in the room that contains the questions from the video, once a month pull a question from the box to discuss, or time built in to the schedule each week to talk in small groups about a topic important to students.
- Create a modified version of the ball pit from the video to set up in the school. Before and after school, students can use it to get to know each other and/or staff members.
- Team up with classes in a lower grade to do the activities suggested by the students.
- Students can create posters to place around the school to promote a more empathetic school community.

MATERIALS AND RESOURCES NEEED

Pencils

Paper

If available, a projector and internet connection

Link to video: https://www.youtube.com/watch?v=HfHV4-N2LxQ

VOCABULARY

See Cooper Hewitt's design vocabulary on Page 13 of the Teacher Resource Packet

STANDARDS

Common Core

CCSS.ELA-LITERACY.SL.6-12.1; CCSS.ELA-LITERACY.SL.6-12.4

POST-VISIT ACTIVITIES

HELPING THE HUNGRY | K-5

SUBJECTS: Language Arts, Social Studies | DESIGN PROCESS: Getting Ideas, Prototyping and Making

ACTIVITY TYPE: Reading, Discussion and Art-Making | 90 mins

YOUR DESIGN CHALLENEGE

How might we raise awareness in our school community about a need?

Read *Maddi's Fridge* by Lois Brandt, and discuss it using the guiding questions below. *Maddi's Fridge* is a story about best friends who love to do everything together. Sofia finds out Maddi has a big problem, and she does everything she can to fix Maddi's problem.

After discussing, students work in teams to create posters to hang in the school lobby or halls about donating to a local food bank. Posters need to catch people's attention and convey important information.

GUIDING QUESTIONS

Book discussion questions:

- Do you have a friend who you like to do everything with?
- Have you ever promised to keep something secret even though it was hard? You don't have to share what the secret was.
- What would you do if you were Sofia?
- If you were Maddi, what would you do? How might you feel at the beginning of the story? How about at the end?
- How can we help kids in our community who do not get enough to eat?

Poster questions:

- What information do we need to tell people so that they can make donations?
- What could you add to your design so that people see your poster?
- What can you add to your poster to make it appealing for people to look at?

VARIATIONS AND EXTENSIONS

- Discuss other things that kids need and ways that students can help.
- Students can raise money for a charity that matters to the class.
- Read *The Last Stop on Market Street* by Matt de la Pena and discuss.

MATERIALS AND RESOURCES NEEED

Book: *Maddi's Fridge* by Lois Brandt

Paper

Pencils

Poster board or chart paper

Markers

VOCABULARY

See Cooper Hewitt's design vocabulary on Page 13 of the Teacher Resource Packet

STANDARDS

Common Core

CCSS.ELA-LITERACY.SL.K-5.1; CCSS.ELA-LITERACY.SL.K-5.4; CCSS.ELA-LITERACY.SL.K-5.5

CCSS.ELA-LITERACY.RL.K-5.1

GROWING OUR COMMUNITY | 6-12

SUBJECTS: Science, Art| DESIGN PROCESS: Getting Ideas, Prototyping and Making

ACTIVITY TYPE: Presentation, Discussion, and Prototyping | 90 mins

YOUR DESIGN CHALLENGE

How might we transform an unused area into a green space for our school?

Prior to this lesson, select an unused or underutilized space at the school for students to focus their design. This space could be any size outdoors or inside, such as a rooftop, alley, old play area, or cafeteria. Invite the students to think like landscape designers and explore how to beautify their school environment. Using the "Growing Our Community" presentation and the guiding questions below, students will discuss how green spaces have been created throughout the city.

Following this discussion, students will work in teams to brainstorm and design a green space for the school that will provide a place for students to sit and relax before school. Provide books and other resources about plant care to assist students in their design. These designs can either be 2-D drawings and plans or 3-D models.

GUIDING QUESTIONS

- What is a green space?
- What green spaces have you visited in the city? Describe your experience.
- Why do you think green spaces are important to have here?
- What are some challenges to creating green spaces in the city?
- How do you think people identify locations for green spaces?
- Why might people want to visit a community garden instead of a large park?
- What features do you notice that these spaces have?
- What are the benefits of beautifying the school with these green spaces?
- How would a green space with plants and flowers help students relax?

Brainstorming and Planning Questions:

- What do plants need in order to grow?
- How have you considered that in your design?
- What types of plants do you plan to include in your design? Why?
- How will people move around the space?
- What feature have you included to help students relax in the green space?
- What features have you included to keep the plants safe from people?
- Who do you think should be in charge of taking care of the plants?

- What are some challenges of designing a space for our school?

VARIATIONS AND EXTENSIONS

- Submit proposals to the school principal and discuss the process of getting such a project approved.
- Redesign the green space so that it will serve as a place to grow food as well as relax. Why would it be important to grow food in the space? What are some things that are needed in order to do this?
- Begin composting in the classroom using a portable compost bin. What does compost do? Why is it important? How does compost help plants grow?
- Choose an empty lot near the school and design a space to grow fresh food for the neighborhood. Send proposals to local officials, such as city council, borough presidents, and the mayor's office.
- Plan a fair to showcase the school's community and diversity.
- Read *Seedfolks* by Paul Fleischman and discuss.

MATERIALS AND RESOURCES NEEDED

Paper

Pencils

Colored Pencils or Crayons

Materials for 3-D models: scissors, glue, hot glue, construction paper, cardboard, recycled materials, markers, plant materials

Books or other resources about growing plants

If available, a projector and internet connection

Our "Growing our Community" slideshow at www.cooperhewitt.org/education/school-programs

VOCABULARY

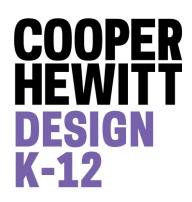See Cooper Hewitt's design vocabulary on Page 13 of the Teacher Resource Packet

STANDARDS

Common Core

CCSS.ELA-LITERACY.SL.6-12.1; CCSS.ELA-LITERACY.SL.6-12.4; CCSS.ELA-LITERACY.L.6-12.6; CCSS.ELA-LITERACY.RST.6-10.1

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VOCABULARY

Color	Color can convey a message. Designers must understand their audiences' perception of color as part of effective design plans.
Design	To make an object that solves a problem
Design challenge	A difficulty or challenge that can be solved through design
Design process	The steps that you take to solve your challenge: 1. Defining problems 2. Getting ideas 3. Prototyping and making 4. Testing and evaluating
Design solution	The way, idea, or answer to a design challenge or problem
Designer	A person who creates a new object, idea, or plan
Empathy	The ability to understand what another person is feeling without adopting that emotion as your own.
Form	The shape and structure of any three dimensional object and can be defined by light and dark.
Function	The way something works, or a purpose of an object *e.g., the function of a paper clip is to fasten things together*
Graphic design	The visual communication of messages through images and words
Green Space	An area of grass, trees or other plants set aside within an urban environment
Landscape design	A discipline within the design field that focuses on how plants are laid out within an area, and how people use the area. It incorporates the aesthetics and growing requirements of plants while meeting the needs of people who will use the space
Line	An element of art used to define shape, contours, and outlines. Also to suggest mass and volume. It may be a continuous mark made on a surface with a pointed tool or implied by the edges of shapes and forms.
Materials	The items you are using to represent your ideas
Needs	What the user must have in order to use the design successfully
Pattern	Uses the art elements in planned or random repetitions to enhance surfaces. Patterns often occur in nature.
Prototype	An original model on which something is patterned
Solution	The way, idea, or answer to a problem. There can be more than one
System	A group of related parts that work together
Texture	The surface quality of an object; roughness or smoothness.

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Team	A group working together on a common goal or activity
User	A person who operates or experiences the design
User-centered design	An approach to design that considers the needs of the user throughout the design process