

# COOPER HEWITT



Smithsonian Design Museum



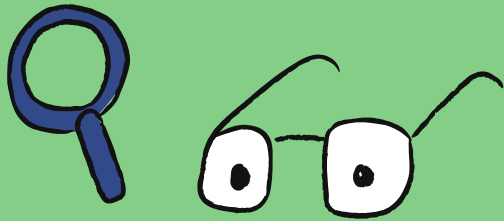
## DESIGN A STREETScape

Subjects: Geography, Civics, Science Engineering

Grades: 1-4

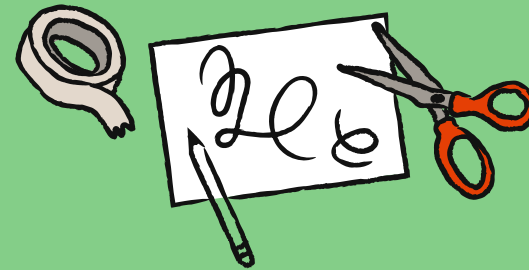
Explore your local environment and design a streetscape for your community to enjoy!

# DESIGN SKILLS



## **Observe**

Look and listen carefully to notice what matters.



## **Prototype**

Build a simple version of your idea.

## LEARNING OUTCOMES

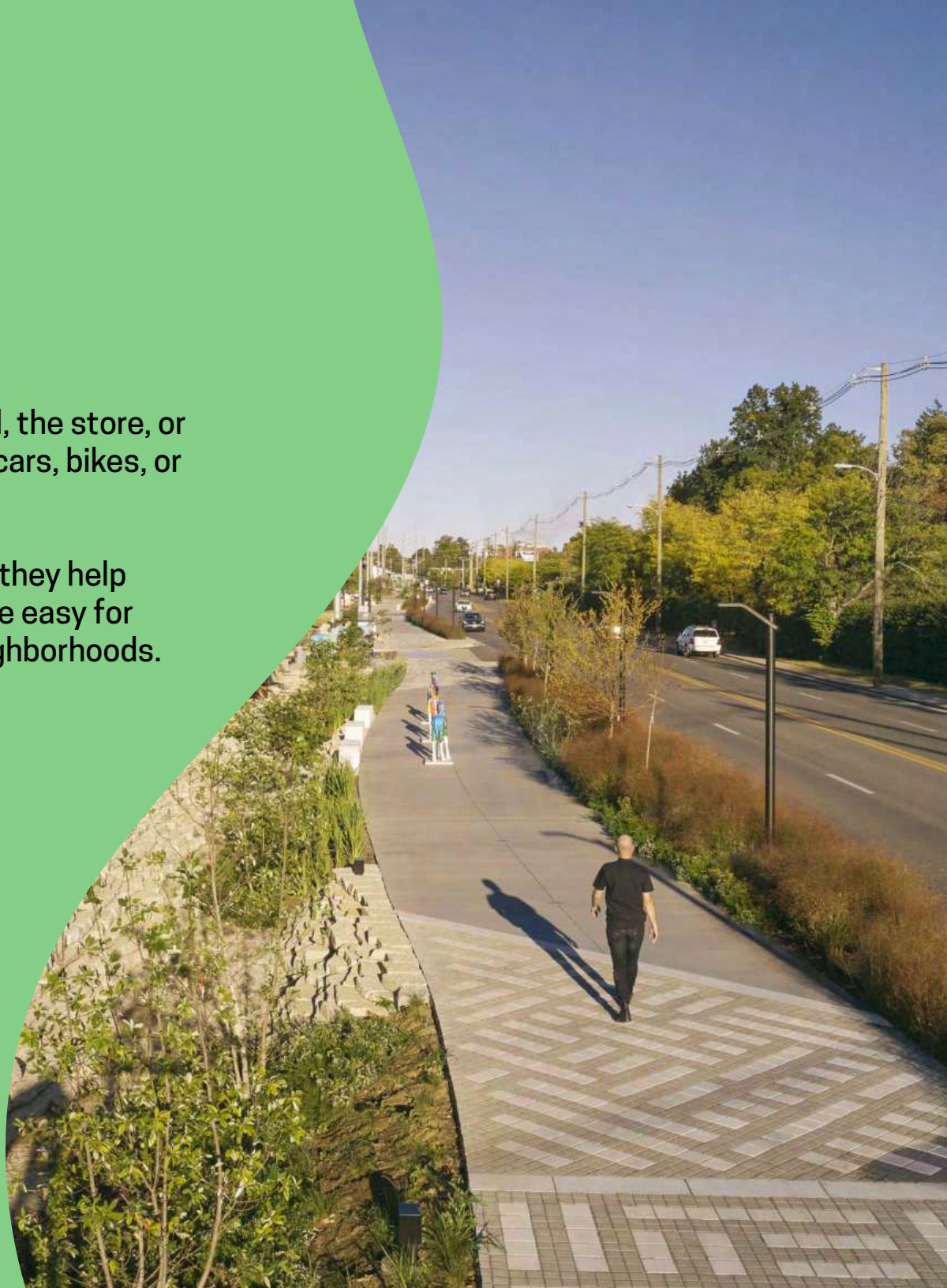
- I can understand that streets have many different parts and people.
- I can identify what's good in my community and what could be better.
- I can discover how different materials can be used to show my idea.

# WHY ARE STREETS IMPORTANT?

What if there were no streets?

How would people get to school, the store, or a friend's house? Where would cars, bikes, or people go?

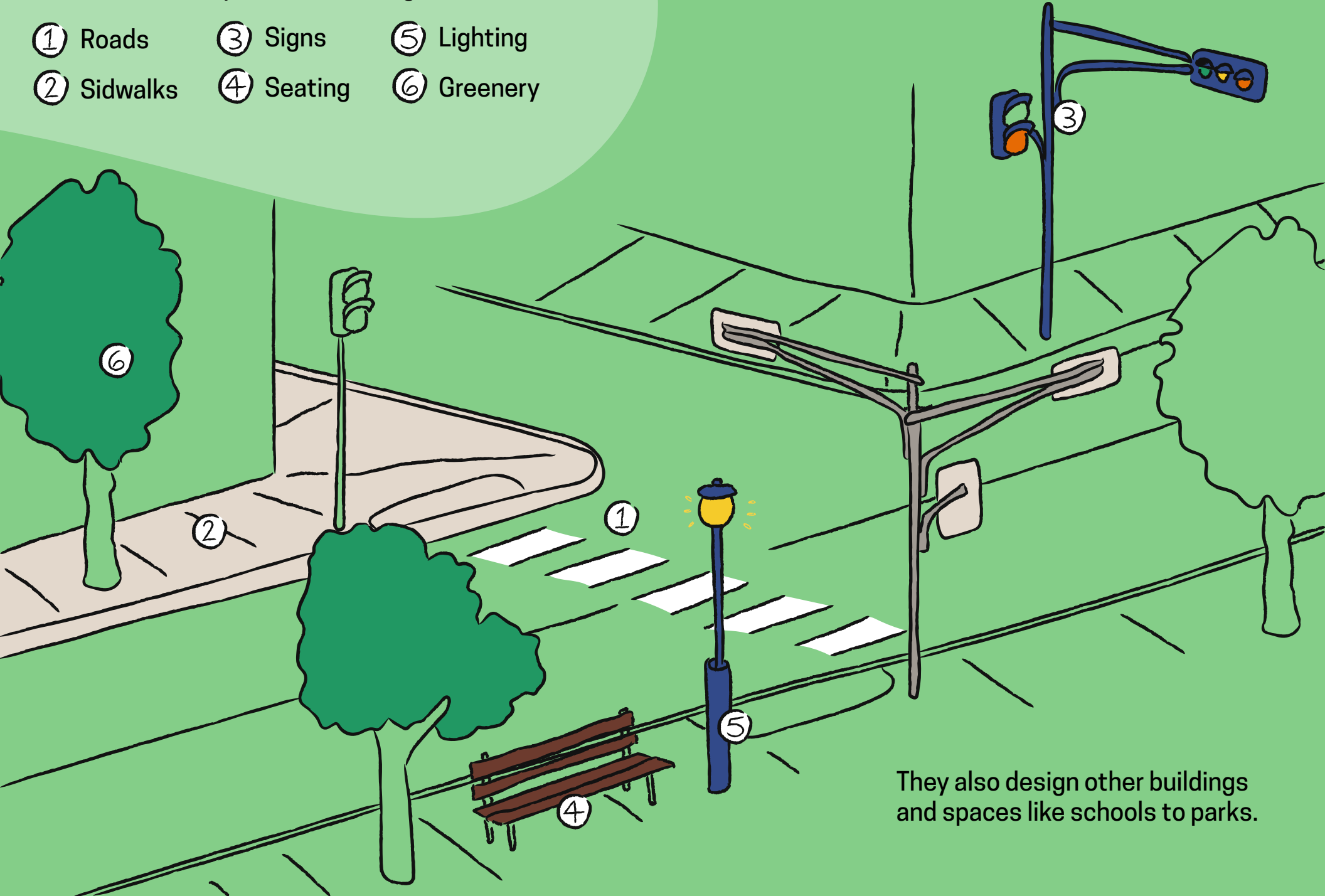
Streets are important because they help people move around. Streets are easy for people in cities, towns, and neighborhoods.



# WHAT DOES AN ARCHITECT DO?

# An architect is a person who designs...

- ① Roads      ③ Signs      ⑤ Lighting  
② Sidwalks      ④ Seating      ⑥ Greenery



They also design other buildings and spaces like schools to parks.



Architects have to think about how to make these places work for everyone.

From children  
to the elderly.



Even animals  
and insects.





**When architects are designing a streetscape, they think about...**

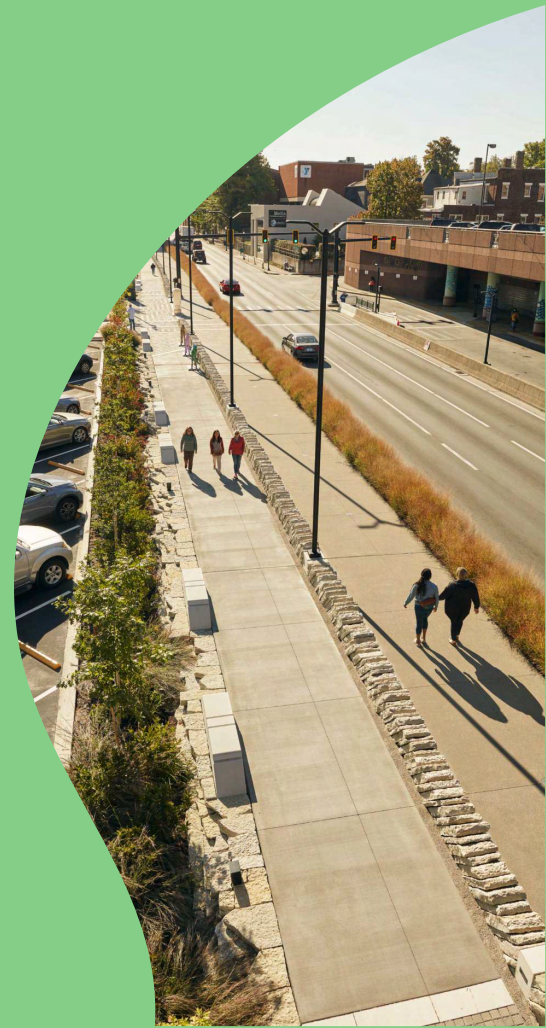


How can everyone get to places quickly and safely?

How can everyone use the street with ease?



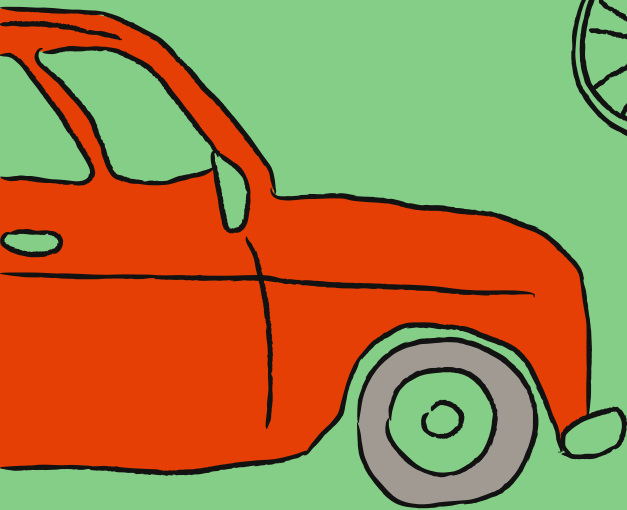
How can the street be good for the earth?



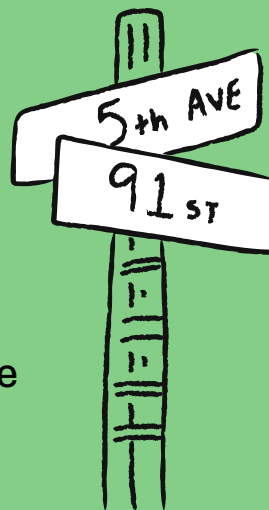


**When everyone can get to where they need to go fast and safely, that's called being efficient.**

Architects build separate lanes for cars, buses, biking, and walking.



They also add signs so people know where to go.

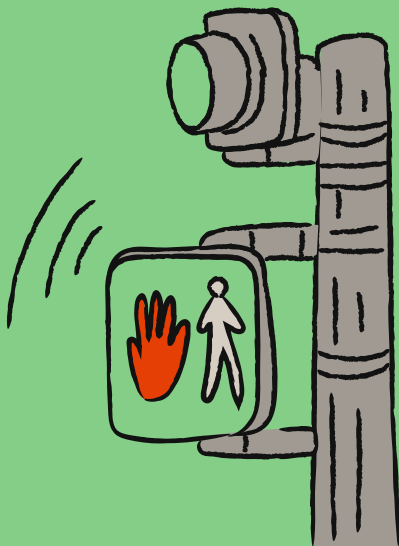


**When everyone can use the street with ease and comfort, that's called being accessible.**

Smooth sidewalks and ramps are good for wheelchairs, strollers, and delivery carts.



Architects design covers used for rain or sun. They design places to sit and rest, and even spots for kids to play.



Crosswalks with lights and sounds and special paths help people who can't see or hear.





**When we make streets good for the earth,  
that's called sustainability.**

Plants are used  
to help stop floods  
and give animals a  
place to live.



Lamp posts that  
use sunlight  
to charge,  
and trash cans  
to keep the  
ground clean.



Trees are good to  
keep streets cool  
and clean the air.



# DESIGN CHALLENGE

**How might you design a streetscape for your community?**

Let's practice thinking like architects. We can use problem solving to build our own streetscape.



## STEP 1. EXPLORE YOUR STREET

Look at your street and write or draw below.



I like and want to keep...

I don't like and want to change...

## EXAMPLE

I like and want to keep...

- Trees
- Bike lane
- Cross walk

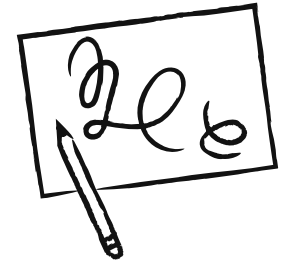
I don't like and want to change...

- No places to sit
- No bike racks
- No accessible entrances for elderly or delivery person

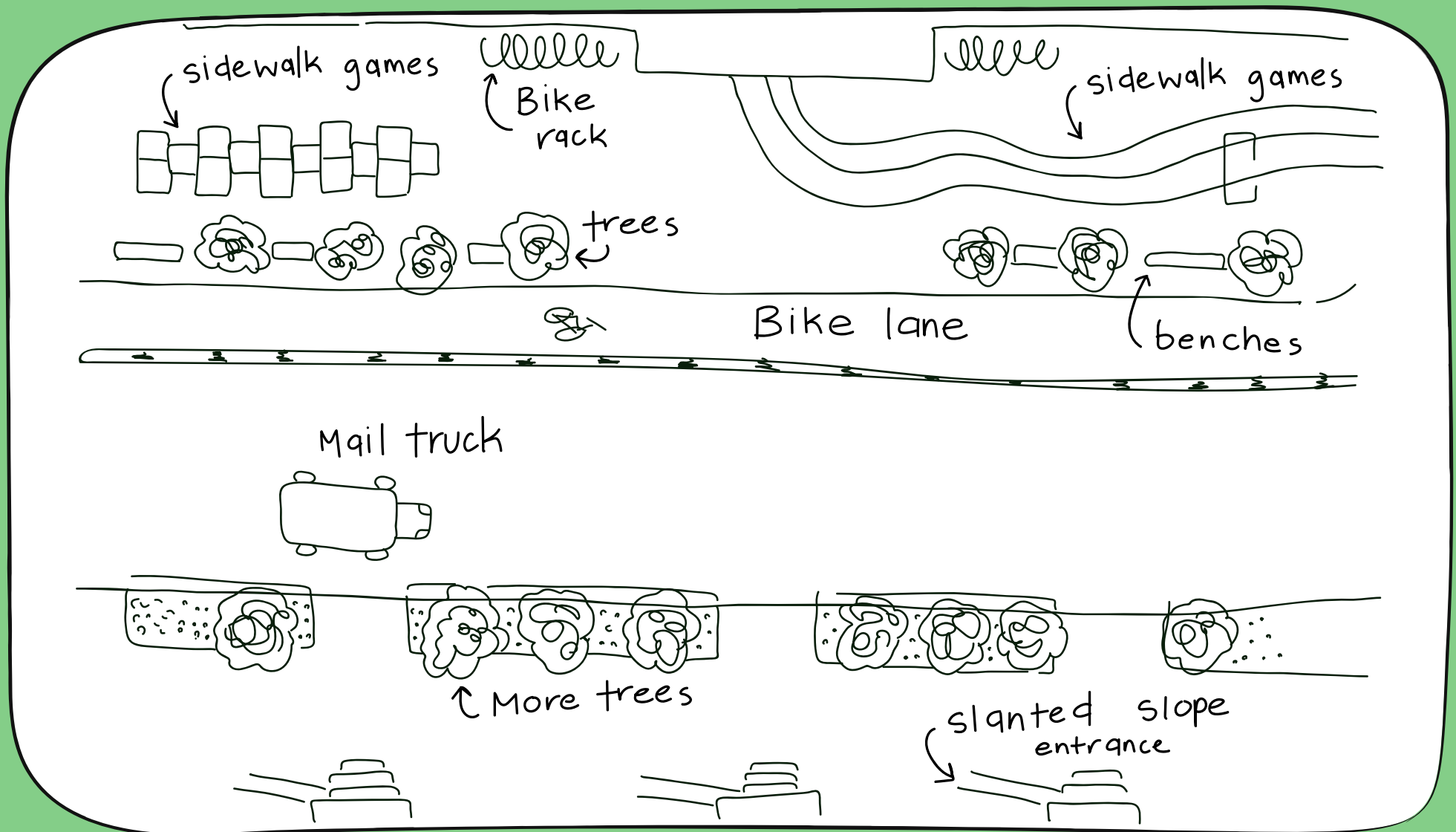


## STEP 2. DRAW YOUR DESIGN

Draw a new design for your street.  
Don't forget to label!

A large, empty rounded rectangle with a black border, intended for drawing a new street design. The rectangle is horizontally oriented and has rounded corners, providing a clear space for the student's drawing.

# EXAMPLE



## STEP 3. COLLECT MATERIALS

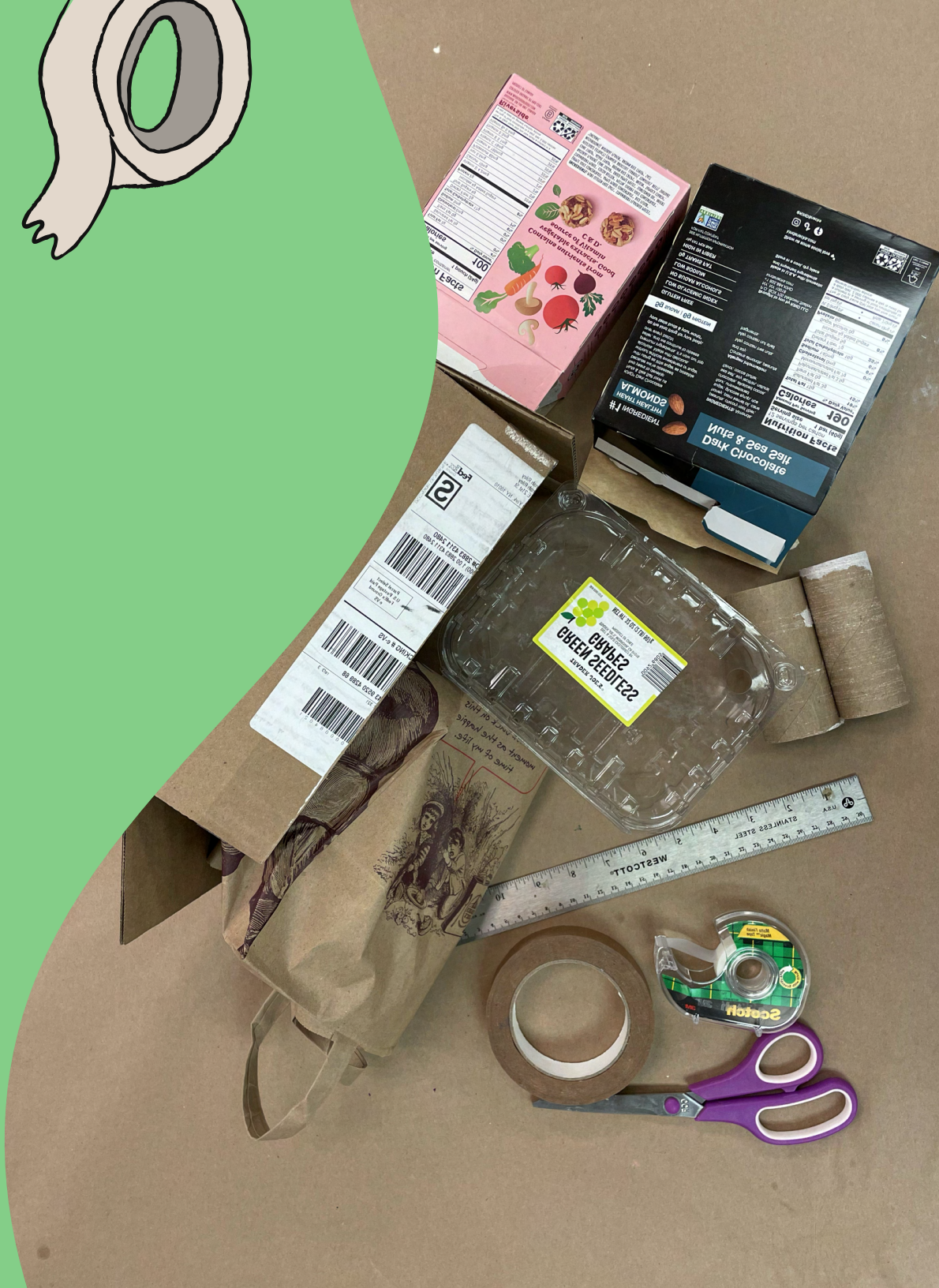
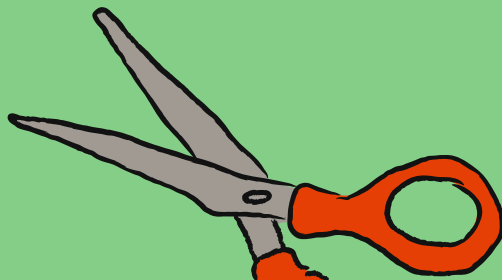
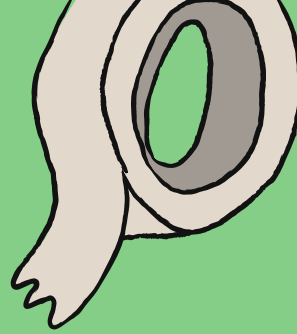
Collect old and recycled materials you can use to build your street.

### Materials:

- Cardboard boxes
- Toilet paper roles
- Paper bags
- Cardboard and plastic containers

### Building tools:

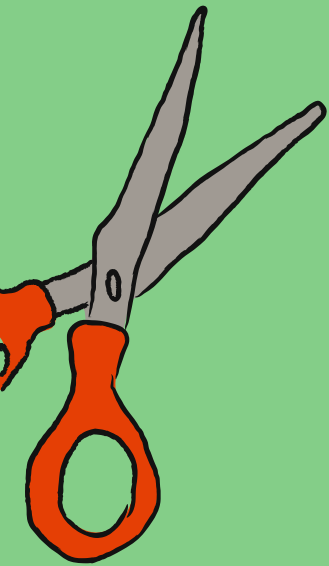
- Scissor
- Tape
- Glue
- Ruler
- Markers





## STEP 4. CREATE YOUR BASE

Cut the side of a box so it can be used as a strong base for you to build on top of, such as a cereal or shipping box.





# STEP 5. BUILD YOUR STREET

Check out different ways you can build using cardboard and paper.

Flange



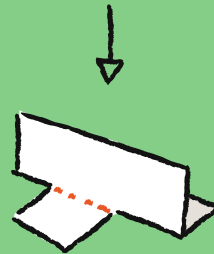
Slot



Fringe



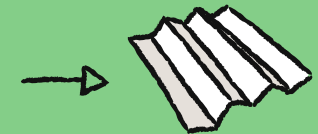
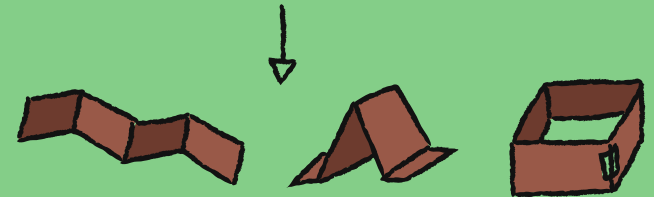
Tabs



Fringe



Fold



Roll



Cone



--- Fold

— Cut

## STEP 6. SHARE YOUR DESIGN

Share your design with friends and family!

Benches to sit on.

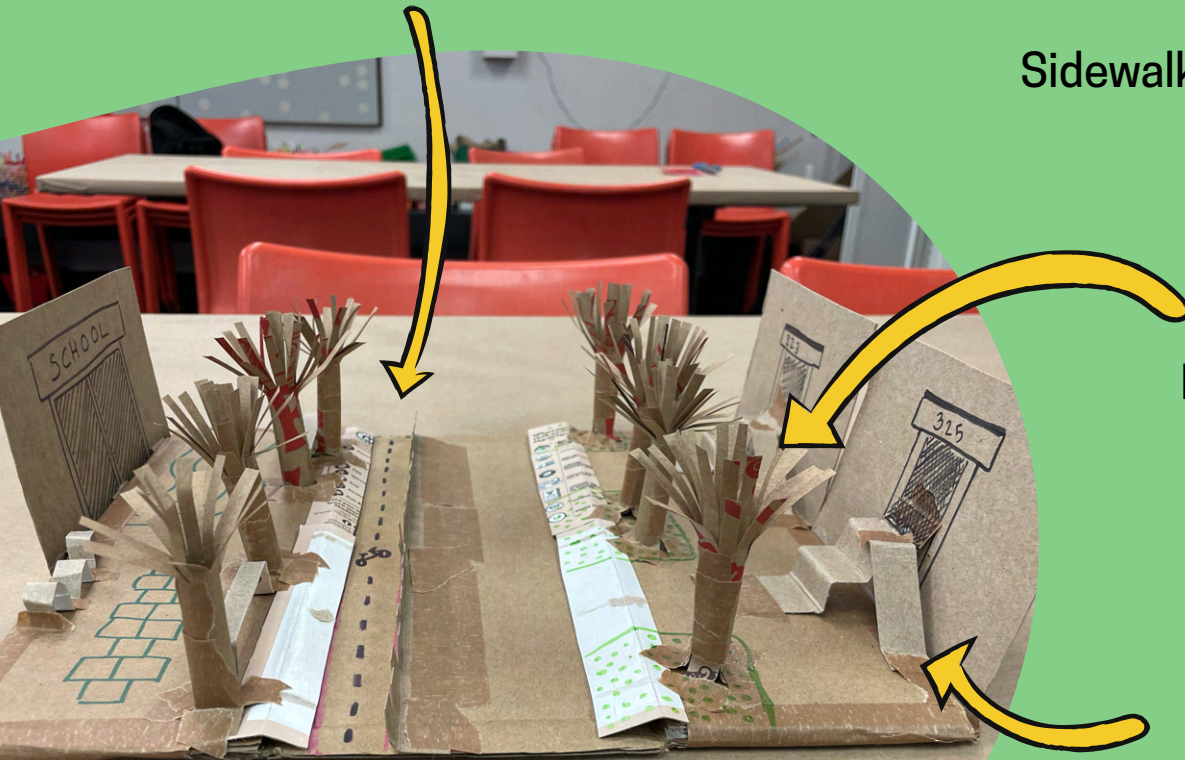
A bike lane.

Sidewalk games to play!

A bike rack to  
store bikes.

More trees for shade.

Sloped sidewalks and  
building entrances.



## CHECK OUT MORE RESOURCES

For more ways to experience design in the classroom or at home, check out Cooper Hewitt's Learning Resources page for activities and content on design skills, collections, and exhibitions.

<https://www.cooperhewitt.org/learning-resources/>

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# CLASSROOM CONNECTION

## **Next Generation Science Engineering Design Second Grade- Engineering Design**

K-2-ETS1-1: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

## **C3- Social Studies**

### **Civics**

#### **By End of Grade 2**

D2.Civ.2.K-2. Explain how all people, not just official leaders, play important roles in a community.

D2.Civ.6.K-2. Describe how communities work to accomplish common tasks, establish responsibilities, and fulfill roles of authority.

D2.Civ.14.K-2. Describe how people have tried to improve their communities over time.

### **Geography**

#### **By End of Grade 2**

D2.Geo.1.K-2. Construct maps, graphs, and other representations of familiar places.

D2.Geo.2.K-2. Use maps, graphs, photographs, and other representations to describe places and the relationships and interactions that shape them.

D2.Geo.5.K-2. Describe how human activities affect the cultural and environmental characteristics of places or regions.



# TEACHER NOTES

**This activity can be broken up into:**

## **Individual**

- 15-20 min: At home have students observe their street.
- 10-15 min: Bring recycled materials from home to school.
- 20-45 min: Build your street, this should be making a quick and rough model.

## **Group**

- 15-20 min: In groups of 2-3 observe your school street, then draw a design.
- 5-10 min: Share with your partner, combine your designs, select at least 1 thing from each design to include in your model.
- 20-45 min: Build your street together, make a rough model. 20 min timer suggested to encourage quick prototyping, or dedicate a 45 minuate class to spend more time experimenting with different techniques.

## IMAGE SOURCES

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