

Challenge 3: Map It!

Get Prepared

Challenge Goal: Understand that there is an order to how communities are organized

Time Needed: One 45-minute session

Before You Begin:

Before the participants come in, set up the tablets so that their browsers are at www.scholastic.com/sparks.



What You Will Need:

Tablet Flip Book

- **Community Engineering Flip Book**



Materials

- Samsung tablets
- 11x17 sheets of paper with a horizontal line drawn in the middle, splitting the paper in half lengthwise
- pencils
- construction paper
- rulers
- scissors
- glue
- crayons, markers, or color pencils

Everything in Its Place

1. Have participants open the Community Engineering Flip Book on the tablets. Have them tap the number 4 and then 5. Ask them to identify what they see. They should answer that all the pictures are maps. Have one or two volunteers explain what the different maps are for.
2. Explain that maps show where things are placed. Tell students that there are all kinds of maps: there are maps of our world, there are maps of our country, there are maps of our states and cities, and maps of our communities. Tell kids that maps are very important to a community because they show what is there. People can use maps to find their way around. People can also use maps to decide if a community has everything it needs.

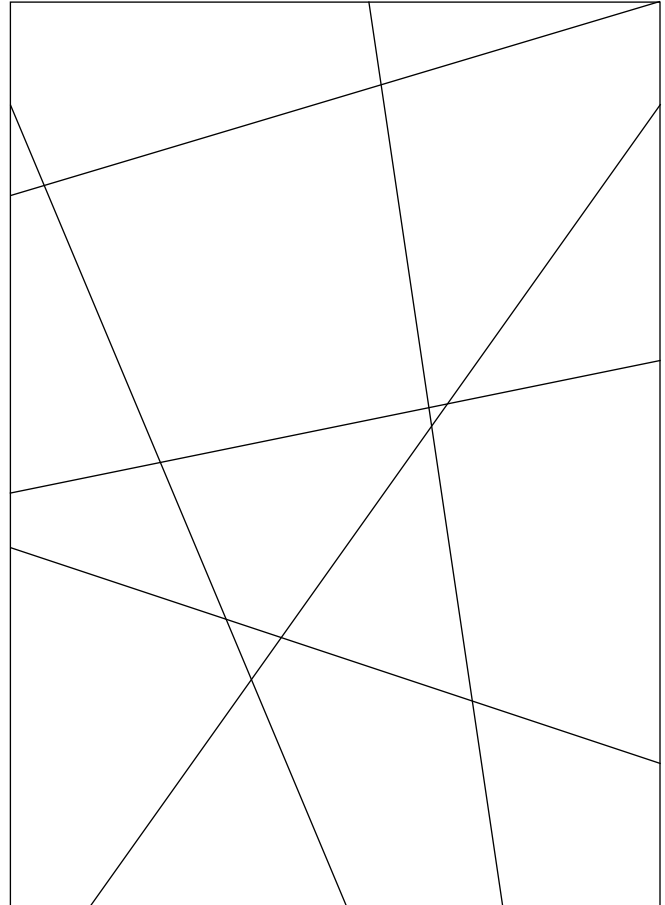
What a Community Needs

1. Ask kids to yell out the things they could not live without. Write those things on the board or on a large sheet of paper. Kids should include food, water, and shelter in the list of things they need. When the list is complete, ask kids where they go to get the things they need. As the answers come up—e.g., grocery store—discuss where those things are located. Point out that all the things that people need are placed along streets and sidewalks so that people can reach them.
2. As water comes up, explain that water and other things that people need come into a community belowground. Have kids tap the number 6. Show them the water pipes, electricity wires, and gas lines shown underground on the illustration. Explain that these important parts of the community are buried underneath the sidewalk, but they help keep your water clean, cook your food (gas), and help you see at night (electricity).
3. If no one has mentioned safety, explain that safety is something that is important to all communities. Ask: **What are some of the things that make communities safe?** Point out the traffic lights and the lampposts on the illustration. Tell them that architects and engineers have to think of all the things that are important to a community when they build.

Challenge 3: Map It!

Map It!

1. Pass out the 11x17 sheets of paper. Have kids look at the palms of their hands. Ask them if they notice the lines marking their palms. Tell them that they will use their own hands as a guide to draw six curved or straight lines on their paper. Tell them that their lines can be however they want them to be, but they should go from one edge of the paper to another. It may help for you to draw six random lines to demonstrate, as shown in the illustration to the right.
2. Next, tell kids that they will now make their own maps of whatever they want. Tell them to take a few seconds to stare at the lines and let their imaginations go wild. Do the lines look like streets? Highways? Mountains? Rivers? Forest trails? Explain that they will choose a location for their map, then fill in some important things that belong in the community they're drawing. Share the following brainstorming ideas as they work:
 - *What important things will you show on your map?*
 - *Who lives in the place shown on your map? People? Animals? Aliens?*
 - *How can you move around the place on your map? Streets? Footpaths? Highways? Rivers?*



Reflection Time

If time permits, have students reflect on community needs. Do their maps include places for people in the community to buy food, go to school, get exercise, move from place to place? If not, allow kids time to draw things or places that the community needs on a separate sheet of paper, cut them out, and glue them to the map. If their maps are complete, allow them to make notes on page 4, of their Engineers' Notebook, "What a Community Needs."