

Where in the Woo are You?

Ten Mapping and Measuring Themed Activities

Suggested Morning Activities:

• Map that Distance!

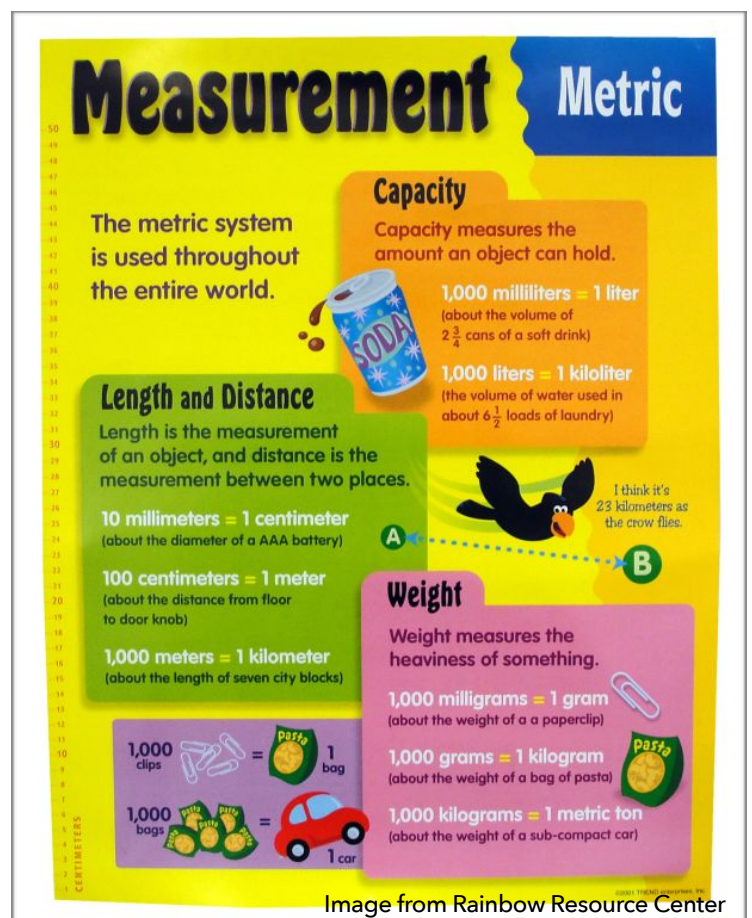
Understanding distance is essential when learning how to read a map. This activity teaches participants to understand spatial relations- how far things are from one another, and how far each measure of distance really is. Participants will begin by using traditional measurements so they understand how distance is usually measured, and how different types of measurements compare. They will then make up their own nontraditional measurements, allowing them to interpret and apply what they learned about measuring in a new way.

You Will Need:

- Measuring Tape (it will help if you cut extra 3 foot long strings so participants can use them to help make their own yardsticks and do not have to wait for the measuring tape to measure out a yard)
- String
- Markers
- Paper
- Pens

To Begin:

Explain to participants that this activity is about learning distances. Participants will be mapping the distance to or around any landmark in the park using traditional and nontraditional



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measurements. To help them measure they will begin by making their own yardsticks out of string.

1. Show the participants what one foot looks like on the measuring tape
2. Then measure out 3 feet (3 feet is equal to 1 yard)
3. Give participants the measuring tape and some of the pre-measured "yardsticks" and let them make their own. Have them mark off 3 feet, and each inch for the first 12 inches. Each string should be 1 yard long.
4. Once participants have their measuring tools give them a paper and pen and send them off to explore various distances...remember to record what you measure and the distance! Some ideas:
 - Measure around a landmark in the park
 - Measure to the landmark and back
 - Measure how tall the park staff is
 - Measure how far it is all the way across the park (what about there and back?)
 - Measure the perimeter of the park
5. Have a group get in a circle (or any shape) and measure the distance
6. Once participants are finished with traditional measurements let them switch to nontraditional measurements. You can use hands, feet, bodies, twigs, straws...whatever you like. Remember to record your measurements!
7. Come back as a group and share. First talk about traditional measurements. Who measured the farthest distance? Whose was shortest? What did they measure? Then talk about nontraditional measurements. Who measured what? With what?
8. Let participants share their nontraditional measurements. Who measured what? Groups can challenge other groups to measure their distance using their nontraditional measurement (group A uses a stick to measure around a tree and claims it was 5 sticks around. Group A then challenges group B to measure around the tree. Group B should get the same measurement. If group A used hands, they may get a different number because hand sizes

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are different- this is fine! Talk about why they're different, and whose measurement was bigger/smaller).

• Mental Mapping

This is a different from the traditional types of mapping activities, but it still requires the same kinds of planning and organization skills. Participants will map their own identities, and what they feel are the most important forces in their lives.

You Will Need:

- Paper
- Something to write or draw with

To Begin:

1. This project can either be done through drawing or writing, or a combination of both. Start by having the participants drawing themselves or writing their name in the middle of the page.
2. Off of the middle, they will try to map out all of the important characteristics of their identity. Consider any part of your identity, including but not limited to your interests, responsibilities, beliefs, race, family, gender, religion, beliefs, concerns...Below is an example, but they can be drawn however they like.



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• X Marks the Spot

Throughout the week there will be various activities asking participants to make maps. For the first of these activities the participants will look at traditional maps and keys and then make their own. Let them know that they trade maps at the end and ask a friend to try to find a location on the map.

You Will Need:

- Books with various examples of maps
- Paper
- Markers


To Begin:

3. This activity focuses on mapping what you see. Look at different maps and learn about what they usually look like, and what symbols you typically see and what they mean.

Compare and contrast maps of the world, of the United States, and of Worcester.

4. Look around at the park and pick a location you want to try to guide someone to. It can be the edge of the park or a landmark (anywhere you want)!
5. As you draw your map put an X on the spot you want your map-readers to find.
6. Try to only have pictures and symbols on your map (see if you can include at least 5). Remember to put a key at the bottom of your map so your readers know what they're looking at!

LEGEND to MAP SYMBOLS

COUNTRY			
Feature	Town		
	desert/wasteland		town/village
	grassland		cities
	swamp		tower/fortress
	hills		castle
	mountains		country capital
	cave		windmill
	political border		forest
	road		lake
	river		reef
			canyon

Posted by Anand Patel

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7. When you are done with your map trade with a friend to see if they can find your x.

• **Dream Parks**

This activity allows participants to think about what qualities they would put in their own park if they could design it. This allows participants to think about spatial relations and practice implementing their own urban designs. Participants should think about the practical factors that make parks enjoyable (shade, water, bathrooms, benches) and what they'd include in their fantasy (water slides, swimming pools, extreme play structures...)

You Will Need:

- Paper
- Something to write with

To Begin:

1. Take a walk around the park. Look at the different features of the park (trees, bathrooms, landmarks, boundaries between park and sidewalk or street). Talk about the favorite parts of the park, and which parts they might change.
2. Divide participants into small groups and have them brainstorm a list of park qualities they feel make the perfect park. Have them think about function (the parts of the park that help keep it safe and usable) and fantasy (imaginary structures or features that are impossible in real life).
3. Have participants draw out what their dream park would look like. Think about how big the park should be, and include the distance on the map. Include symbols and a key for all of the various features.

• **Maps From Memory**

Mental maps help participants organize a place, helping them to better understand distance and the spatial relations of a space. Participants will try to draw a map from memory, and then compare with what they actually see. After the participants have finished their maps, ask them all to compare. Discuss how they may have different viewpoints, and talk about why certain participants may have focused on various parts of the park.

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You Will Need:

- Paper
- Pens, pencils, markers...

To Begin:

1. Have participants pick a place to map. If they'd like to map the park (or a part of the park), they can then compare maps at the end, but if they'd like to map a different place that's okay too.
2. Have them face away from the area of the park they're mapping (if they're mapping it) so they can try to draw from memory.
3. Have participants spend time (20 minutes or however long they take) mapping the park from memory. See how many details they can include (add trees, paths, parts of the playground).
4. Now take a walk together around the park. Look at the maps and see what you missed. You can encourage the participants to draw in what they missed with a different color.
5. When the participants are done have them compare maps. Possible discussion questions include:
 - Do all the maps look similar or different?
 - Whose map was the most detailed?
 - What were the common landmarks everyone notices?
 - What were landmarks only certain people noticed? Is there a reason those people may have remembered them?
 - Were there any landmarks everyone forgot?
 - Everyone sees the same thing a little differently, depending on what you have experienced. How do you think people's personal experiences changed their mental map?

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Suggested Afternoon Activities:

• Find Your Speed

This activity helps participants understand more about distance and time, giving them concrete examples of how far they can travel in a certain amount of time. Begin by measuring as far as you can in yards across the park. Then the participants will guess how far they can walk and then run, in 10 seconds, before trying it themselves. (Lesson adapted from National Council of Teachers of Mathematics)

You Will Need:

- Measuring tape
- Cones to mark each yard
- Paper and pencil to record distances
- Timer

To Begin:

1. Explain that this activity calculates how long it will take to walk 10 seconds. Measure out one yard for them to see, and have them guess the number of yards they will walk. Give each participant a piece of paper and have them make a chart like the one below. Have them record their guesses under the column titled "prediction."

My _____ Speed

	Prediction	Round One	Round Two	Round Three	Round Four	Round Five
Walking						
Running						

2. Next measure out as many yards as possible across the park, marking each yard with a cone. This will be used to measure how far each participant walks.

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3. Have someone keep track of time with a stop watch. They will need to call start and stop after 10 seconds.
4. Have everyone line up at a starting line to begin. When the time keeper calls "START" everyone should begin walking at a casual walking speed for 10 seconds, until the time keeper yells "STOP."
5. Have each participant stop and record their distance. It may be hard for some to tell where they are in relation to the yard cones, so the time keeper or another staff member can help them find the correct distance.
6. After each participant's distance has been recorded, begin the round again. Stop after every 10 seconds so everyone can record their distance. You can repeat this between three and five times.
7. At the end of the rounds come back together as a group, and have each kid calculate the number of yards they walked each round. Was it close to their guess? Did anyone guess correctly? Compare answers before moving on to running.
8. For the running exercise, repeat the same steps, beginning with a prediction. Once kids have written their guess, have them run for 10 seconds at a time, stopping, measuring, and recording afterwards.
9. At the end of the rounds come back together as a group and compare answers once again. Were the answers closer this time, after you had practiced walking? Did anyone guess correctly?

• **Map your Community**

This exercise allows the participants to map a place that they feel connected to. First participants will have a chance to brainstorm the parts of their community that they would like to map. They can choose as large of an area as they would like, or focus on a smaller piece like their block or the route from their home to school or the park. After brainstorming they will create an educational map about their community discussing the positives and what they might change if they could. Maps can be realistic or in a psychogeographical style, or a mix of both!

You Will Need:

- Paper

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- Pens, markers, paint...

To Begin:

1. First, begin by having a discussion about your community. This can either be in small groups, or one large group. Talk about your favorite places, what they look like, the type of traffic, the people, and what you might change. Try to answer these three questions:
 - What is my community called, and where is it located in the city?
 - What are the best things about my community?
 - What are the key issues in my community?
2. Once a list has been made allow participants to draw a map of their community for someone from somewhere else. What would an outsider need to know? Is there someplace special they shouldn't miss? What is the best restaurant, park, or street? Map it using traditional mapping language and symbols, or taking a psychogeographical approach and map the feelings, sounds, and smells of your community.

• **Psychogeographical Maps**

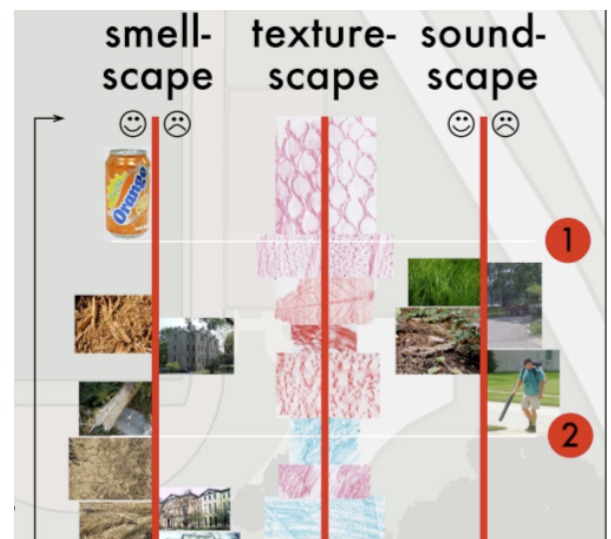
Psychogeographical maps record feelings, sounds, and social concepts instead of what you see. Participants will first walk around the park creating a chart of sounds, smells, and textures. Using these charts they will then come up with their own maps of the park, using psychogeographical language instead of typical mapping discourse.

You Will Need:

- Paper
- Something to write with
- Markers, paint (anything to illustrate the map)

To Begin:

1. Ask participants if they would like to work in groups or alone. To begin each participant (or

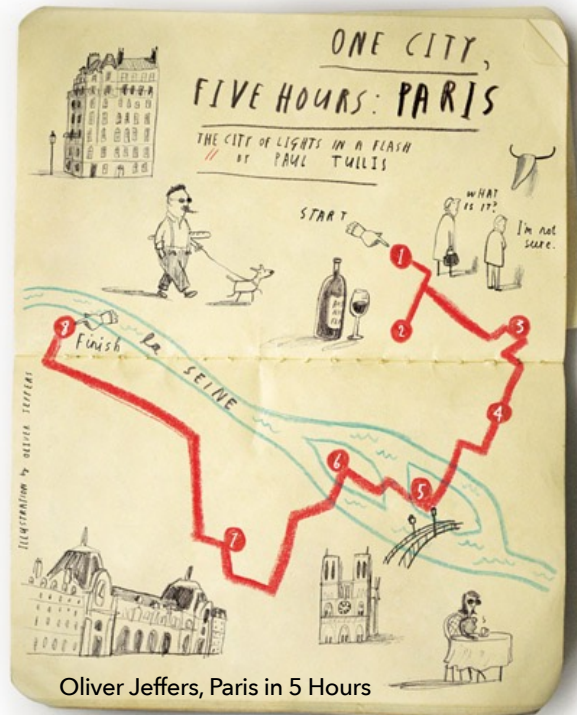


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lessons by John Krygier

group) will need paper and something to write with.

- Participants will begin the mapping project by taking a "derive" (pronounced deh-reve), a psychogeographical term for a walk around the park. During the derive they will record the sounds, textures, and sights that they come across. Record how these sights make you feel. The picture below is an example of how participants can record their sounds, textures, and sights. They should record what they see, and how they feel about it. They can number what they see so they know the order.
- After everyone has filled out a chart, ask participants to recreate a map of the park using the sounds, smells, and textures that they found. This means that instead of drawing landmarks like a lake, you would draw how the lake makes you feel, how it smells, or the texture. Then, draw the sounds you heard nearby. Each part of your map will be an experience and does not have to be something physical. Below are a few different examples of psychogeographical maps for inspiration.



• Relay Races

This activity is a twist on the typical relay race, which has participants applying measurements at each round. Split participants up into groups (any even number) and have them race each other to the end of the course following the measurement given. There are 6 rounds, and each round can be played at least two times (at least 12 rounds total). Groups can be between 2 people (who would take 3 turns each) or up to 12 people (if you wanted to try each round twice).

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You Will Need:

- "Relay Race Clues" worksheet
- One string measured out into 3 feet (1 yard) with each foot marked for each group (collect and save these strings for the geocaching activity later!)
- A "baton" to pass along (marker, sticks, string)
- Something to designate a starting line the groups will stand behind
- Cones to designate start and end of relay course

To Begin:

1. Explain the rules:
 - There will be 6 rounds of the relay race.
 - Because this is a measurement themed relay race, you can only move as fast as the distance that the round allows (so if you need to measure out by feet, you can only move one foot at a time).
 - Measurements are traditional and nontraditional, and players may want to be strategic about which players play which rounds.
 - Each player will go back and fourth, beginning at the starting line and stopping at the designated end cone, passing off the baton to the next player when they return to the group.
 - The goal is to be the first team to finish all six rounds.
2. Split the kids into groups of 6 (unless a different number works better with your group).
3. Hand each group a:
 - Copy of the rules
 - Ruler or string measured out into a yard
 - Baton
4. When everyone is ready have the teams line up at the starting line and begin!
5. The rounds are as follows (feel free to invent your own rounds as well):
 1. Take 1 foot steps

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2. Players take turns standing fingertip to fingertip. Player A begins by spreading their arms wide, when player B will then spread their arms out (player A spreads their arms, player B then spreads their arms at the fingertips of player A, and then player A comes back around spreading their fingertips at player B's arms)
3. Move one footstep at a time (walk toe to toe, so at each step your toes touch your heel of the foot in front)
4. Take 1 yard leaps
5. Take as large of a footstep as your can, pivoting each time to move (step with your left in front, pivot so your next step puts your right foot in front)
6. Travel 9 yards (each way) however you want

• Geocaching

This activity is the culminating activity for the week of mapping. Participants will use what they learned about distance and mapping to take part in a mock geocaching course.

Because each site is different, a map of the course as well as the clues will need to be made by staff at the beginning of the week so that it can be photo copied in time.

You Will Need:

- A map of the park for the campers, with a designated start
- A list of clues that lead to locations with different tasks

To Begin:

- You can have clues based on distance (the next stop is 30 feet from this tree) or by having them look at the map (labeling two spots clue 1 and 2). Try to make at least 7 clues.
- Because this is not a race, kids should be able to start at any point in the course.
- Draw the map and write out the clues to be photocopied before the activity begins

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- Typically, geocaching means trading out treasures once you get to the site. Instead, kids will interact some way at each of the 7 spots. If there is a way to add on that you feel would work better, feel free to try it! The seven activities can be:
 - Come up with and write down a team name
 - Make a paper crane
 - Sign your name in the dirt
 - Leave a fingerprint on a paper
 - Decorate a strip of paper and adding it to a paper chain
 - Leave a message for the next group
 - Make a statue with found materials to represent your group