



Mapping Session Outline

For the Outdoor Skills Program

- I. Welcome students and ask group what they remember or learned in the last session.

- II. Mapping Lessons
 - A. Activity: Reading a map
 - B. Activity: Creating a map
 - C. Using your new map (direct application)

- III. Frisbee Moment: Ask the students what they enjoyed most about today's session and what they enjoyed the least.

The Outdoor Skills program is a partnership with Nebraska Games & Parks and the UNL Extension/4-H Youth Development Program to provide hands-on lessons for youth during their afterschool time and school days off. It provides the opportunity to master skills in the areas of hunting, fishing, and exploring the outdoors. This educational program is part of the 20 year plan to recruit, develop and retain hunters, anglers, and outdoor enthusiasts in Nebraska.

Inventory

Session: Mapping Curriculum Level: 3 - 4

Kit Materials & Equipment

- 100' measuring tape
- Clipboards
- Map examples of Platte River State Park
- Poster paper
- Crayons

Session: Mapping Mania

Activity: Using and Creating Maps



Objectives: Participants will:

- 1). Read a map using:
 - a. Direction
 - b. Symbols
 - c. Standard map features
 - d. How these features help with navigation
2. Accurately make measurements and use a measuring tape.

- 2). Develop a map with key features to include:
 - a. School building
 - b. Vegetated areas
 - c. Play grounds
 - d. Trees
 - e. Measure distances and areas
 - f. Other key or unique features

Method: Students will start with a blank poster. This poster will eventually be a map of their school yard but they will have to create that!

Duration: 90 Minutes

Group Size: 7-12

Setting: Outdoors/Indoors

Key Terms: map, map symbols and legends, scale, key, key features, measurements, navigations, distance, description, details, directions, designations

Set Abilities: demonstrate, draw/design

Fair Exhibit: map of their yard or local park.

Materials Contained in Activity Tub:

100 foot measuring tape, clip boards, pencils, markers, graph paper, poster material, poster of topographic map.

Background:

Maps are used by everyone, especially hunters who often navigate wild places...which is a lot of fun. Maps are so important that even the great explorers Louis and Clark were chosen for their map making skills and charged with making a map of their westward exploration. During this time, they noted key terrain features, wildlife found by region, special features of interest, changes in flora or vegetation, distances and time required to navigate. Such information is important for anyone wanting to use the map for navigation or to simply learn about the area, develop plans for habitat improvements, hunting plans and more.

Details –Maps, such as topographic maps, use symbols to explain or represent natural and artificial structures and contours to show changes in elevation. Such landmark details are represented as symbols which are printed in code colors (blue, red, green, black, brown,) to aid in quick interpretation. For example:
Black – structures built by people (bridges, buildings, boundaries, etc.)

Green – woods, wetlands

Blue – water (ponds, lakes, rivers)

Red – important roads

Brown – elevation contours

Activity:

Before the Activity

1. Set out the supplies for this activity including the provided maps, clip boards, graph paper, measuring tape and pencils and paper.

Procedure

2. Start by explaining what maps are used for and ask the students if they have ever used a map.
3. Use the maps provided to show the students how different maps are used and why each provides the user. For example, topographic maps provide elevation, terrain features, keys for roads, waters, etc. while aerial maps provide clear pictures as to what those ground features look like.
4. Review the parts of the maps with the students, explaining what each color and symbol means. When discussing key features such as rivers, bridges, trails, contours, etc. ask the kids why a hiker would want to know of these features.
5. Explain where and what the LEGEND is on each map and what the key is used for. This will be very important when they make their own map.
6. On the map, denote two locations (A & B) and ask the students what features they would need to be concerned with or note when hiking from A to B.
7. Explain to the students how a measuring tape is used and have them measure the length of their classroom.
8. Explain to the group that they will be making a more simple map of their school yard.

1. Divide the group into two teams and take the teams on a short hike around the school grounds (one team is fine for smaller groups). Appoint the following members for each team:
 - a. Map Master – draws key features noted by team on hike
 - b. Veggie King – denotes vegetation changes to landscape on hike
 - c. Symbols Dude – Determines symbols used for key features on map
 - d. Distance Duo – team of two or more that use the measuring tape to measure distances from key objects, size of building, grass areas, parking areas, distances between vegetation types, etc.

Instructor Note: During the outdoor hike, have the teams focus on a particular area of the school yard, park, etc. but use your judgment in choosing an area that has several features but small enough they can traverse in 20 - 30 minutes or less.

And Now...Back To Our Classroom

- a. Once students are done with the hike they will head back to classroom to develop their map.
- b. The two teams can now share details of info they found on their hike denoting, trees, grassy/green areas, parking areas, buildings, boundaries, water or streams, etc.
- c. The students will begin taking their notes and developing the map starting with boundaries and regional features (parking areas, green areas, wooded terrain, trees, etc.
- d. Students will need to determine the scale of their map and denote that at the bottom of the map. They will

also need to indicate north with an N or .

- e. Students will determine how large to represent features based on measurements taken on the hike.
- f. Use appropriate colors when denoting key features.



Journal time!

Have students answer the questions on the “My Map Making Notes” page before beginning to make the large group map. This will aid in their thinking process before starting to draw.

Instructors NOTE: Although standards exist for symbols representing roads, trails, bridges, paved areas, etc. the class can determine the symbols they will use for features found in their school yard. For example, a playground may be denoted on the map you create with a swing set or drawing of a child. School buildings may simply be a black square. Grassy areas may be shaded in green with a symbol of grass on them. Trees can be denoted with a symbol of a tree or a leaf. The important thing is that your map needs to have a LEGEND that explains what each symbol means.

- g. Determine their measuring skills. Consider having the students practice measuring small and large areas first. Have them practice reading the measuring tape.
- h. Now they have a cool map of their school grounds!

What to Do With It?

Students can use their newly developed map to do all sorts of nature related activities. From determining best places to locate bird houses to determining how to create better habitat for wildlife (something all hunters care about).

Advanced Map Activity

1. The school has just determined it would like to create a bird garden to feed birds and a place where students could watch birds. You are the team for this job!
2. Use your new map to determine the best location for the bird garden taking into account:
 - a. Best bird habitat (trees, grassland areas, areas free of major disturbance)
 - b. Areas where students could gather to watch the birds
 - c. Locations for feeders that would allow birds to use them without straying too far from cover
 - d. Areas easy to replenish the feeders when empty