

Landmark Program

Pre- and Post-Activities

BACKGROUND FOR TEACHER

Explore topography by using maps and other geographic tools that assist with the navigation and interpretation of Longwood's section of the earth's surface. Age appropriate activities challenge students to apply basic mapping skills as well as utilize geographic tools to locate specific areas in the garden.

There are various recreational opportunities that use mapping skills. Both letterboxing and orienteering are popular activities that use navigational tools and maps to locate specific hidden caches hidden around the world. (See Web Resources for Teachers)

Garden maps are available on our website and can be downloaded and/or printed ahead of time. There are printed maps available in the Visitor Center.

<http://longwoodgardens.org/gardens/guides-maps>

VOCABULARY

Cardinal directions
Elevation
Globe

Human features
Landform
Orienteering

Physical features
Scale
Topography

NATIONAL STANDARDS FOR GEOGRAPHY

Standard 1: Understands the characteristics and uses of maps, globes, and other geographic tools and technologies

Standard 2: Knows the location of places, geographic features, and patterns of the environment

Standard 3: Understands the characteristics and uses of spatial organization of Earth's surface

Standard 4: Understands the physical and human characteristics of place



PRE- AND POST-ACTIVITIES

Finding North (K-2)

Curriculum Connections: Social studies, geography

Materials: Sets of direction cards, compasses

1. Teacher should prepare sets of direction cards (north, south, east, west) ahead of time using index cards. One set of direction cards is needed for every group of 4 students.
2. Divide students into groups of 4. Have each group sit on the ground in a circle.
3. Give each group one set of direction cards and a compass.
4. Ask each student in the group to take a direction card.
5. Assign one person in the group to place a compass on the ground in the middle of the circle.
6. Find the direction north using the compass. (This is done by placing the compass on the flat surface. The end of the arrow with the red tip will point in the north direction.) Student will need to adjust the compass so that the letter N is aligned with the red tip of the arrow.
7. Ask the student holding the north card to move to the north spot in the circle.
8. Have students rearrange themselves to create an accurate copy of the compass rose.
9. Check groups for accuracy.
10. Once all groups are done, you can call all the north students to stand. Ask them all to face north. Have all students identify the direction north.

Extension/Modification Activity: Hang the direction cards around the classroom to identify north, south, east, and west. Encourage students to use direction words when describing the location of things around the room.

Cardinal Directions (3-5)

Curriculum Connections: Social studies, geography

Materials: 1 compass per student, paper, pencils, scissors

1. Give each student a compass, a piece of paper, scissors, and a pencil.
2. Ask students to fold the piece of paper into four rectangles and cut along the fold lines.
3. On each cut rectangle, students should write the letters for the cardinal points: N, E, S, W.
4. On the board, draw a compass rose for the students to see. Label the directions of the compass rose.
5. Ask each student to hold one hand flat, and place the compass on the flat hand.
6. Explain how a compass arrow will always want to find north. Help students identify north before moving on.
7. Ask students to stand and face north.
8. Now place the N card on the desk to identify the direction north.
9. On the card, ask students to write the name of one object in the classroom that is north of their desk.
10. Find the direction east, and place the E card on the desk to identify the direction east.



11. On the card, ask students to write the name of one object in the classroom that is east of their desk.
12. Continue these steps for South and West.
13. If time allows, discuss how the sun rises in the East and sets in the West. Have students draw a sun on the E card. This may encourage students to identify directions on a daily basis.

Extension/Modification Activity: Students may do this same activity outdoors. Another option would be to encourage students to identify directions within the school building. Which direction would I need to go if I wanted to get my bus for pick up? Which direction do I walk to get to the gym, library, or music room?

How Many Steps? (3-8)

Curriculum Connections: Mathematics, social studies

Materials: A simple map of the classroom or area you are working in, pencils, 1 pedometer per student, calculators, scrap paper for calculations

1. Give each student a simple map of the classroom, a pedometer, and a pencil.
2. Ask students to identify a starting point on the map, and mark it with an "S".
3. Next, ask students to identify an ending point on the map, and mark it with an "E". Connect the two points with a pencil line.
4. Clear all pedometers, and ask students to walk the route drawn with the pencil on the map. Record the number of steps from the start point to the end point.
5. Based on the fact that one mile is equivalent to walking 2,000 steps, calculate how many times you would need to walk this route to equal 1 mile.
6. Have students compare findings. Who had the longest route? Who had the shortest route?

Extension/Modification Activity: Take students outdoors to walk 2,000 steps. Have students experiment with the length of time it takes to walk 1 mile. Ask students to extend calculations for 5 miles and 10 miles.

Create a Classroom Map (K-2)

Curriculum Connections: Language arts, social studies, geography

Materials: Crayons, pencils, paper, post-it notes

1. Read *Me on the Map* by Joan Sweeney.
2. Discuss what a map does, and how maps can help us.
3. Hand out paper and pencils.
4. Using the classroom as inspiration, guide students through a map drawing exercise. One step at a time, have students draw as you draw on a board or large chart paper. Be sure to include doors, windows, closets, desks, chairs, etc.
5. All maps should be similar.
6. Allow time for students to add some color to the map.



7. Now, give each student a post-it note. Each student should draw a simple picture of an animal.
8. Instruct students to hide the animal post-it note somewhere in the classroom and return to their seat.
9. Using a pencil, have each student mark an "x" on their own map to identify where their animal post-it note is hidden.
10. Next, students should draw a line on the map that starts at their own desk, and ends at the animal post-it note.
11. Have students find a partner. Students will trade seats and trade maps with the partner.
12. Once everyone is ready, allow students to walk the route on the partner's map to locate and collect the hidden animal post-it note.
13. Students can help one another if necessary.
14. Once all animal post-it notes have been claimed, students should return maps to the creator and return to their own seats.

Extension/Modification Activity: If weather permits, students may want to do this same activity outside in the playground area.

Planning a Route (3-8)

Curriculum Connections: Social studies, geography

Materials: Printed maps of various places (museums, amusement parks, malls, zoos, or public gardens), markers, rulers

1. Teachers will need to download and print various maps prior to this activity.
2. Allow each student to choose one map of a place they would like to visit.
3. Have students find the entrance to the place on the map. Using a marker, place an "X" at the entrance.
4. Students will then need to create a route that could be followed on a visit to this location. Determine which sites to see, and in which order to see them. Students should identify 5-10 spots.
5. Students should place a circle with a number inside to identify where to go first, second, etc.
6. Using a ruler, have students draw a line with the marker to connect the spots to travel.
7. Remember, the last line drawn should lead to the entrance/exit.
8. Students can then create a map key to identify the name of each numbered spot. This will serve as a list when traveling to the fun location.

Extension/Modification Activity: To make this activity more challenging, students can write out specific directions using cardinal directions for someone to follow at the location.



WEB RESOURCES FOR TEACHERS

Delaware Valley Orienteering Association

<http://www.dvoa.org/>

Orienteering USA

www.orienteingusa.org

Atlas Quest: A Letterboxing Community

<http://www.atlasquest.com/>

Longwood Gardens

www.longwoodgardens.org/gardens/guides-maps

National Geographic Education

<http://education.nationalgeographic.org/map-skills-elementary-students/>

SUGGESTED PRINT RESOURCES FOR STUDENTS

Sweeney, Joan. *Me on the Map*. Dragonfly Books, 1996. Print.

Leedy, Loreen. *Mapping Penny's World*. Henry Holt and Company, LLC, 2000. Print.

Ritchie, Scot. *Follow That Map! A first Book of Mapping Skills*. Kids Can Press Ltd, 2009. Print.

Knowlton, Jack and Harriet Barton. *Maps and Globes*. HarperCollins, 1986. Print.

