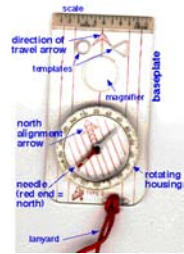


“Where Are You?”

Cardinal Directions and Orienteering Activities for Children (K-5)

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NASPE Standards:

1. Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.
3. Participates regularly in physical activity.
5. Exhibits responsible personal and social behavior that respects self and others in physical activity settings.
6. Values physical activity for health, enjoyment, challenge, self-expressions and/or social interaction.

Integration

Social Studies – Map skills and cardinal directions.
Science – Earth’s magnetic field
Math – measurement, geometry.

Introducing Cardinal Directions

Directions (N,S, E,W) PE. Central, K-2

Locomotor skills warm-up using directions on the gym walls as a guide. Begin slowly to allow students to learn and react to instructions. Increase complexity and speed of the commands.

Begin with North, East, South, West.

Add Northeast, Southeast, Southwest, Northwest.

Compass Rose – A circle marked by 32 points, or 360 degrees numbered clockwise from true or magnetic north. The compass design, often ornamental, used on maps to indicate the points of a compass. (Webster)

Make a compass rose – 4 Maze ‘n Moves squares, strips, lawn chair webbing.

Orient your compass rose to the signs on the walls or cones.

Compass Rose Jumping

The student will jump to the direction on their compass rose that is called by the teacher.

When students are comfortable, add 45 degree intervals to the jump.

Introduce 8 directions on the compass rose as on the gym walls.

Variations: Have the children use different locomotor patterns.

Compass Rose Tossing – PE Central, 3-5

The student will make a compass rose with different tossing objects by placing one object on each point of the compass. Cardinal directions will be located on each side of the gym

Example: Place a polyspot in the center, a yarn ball to the east, a bean bag to the north, a scarf to the west, and the student is to the south. The teacher will call out cardinal directions and the children will practice tossing equipment up and catching it. The teacher directions will not include saying the equipment, but will use a direction. Children can be given two cardinal directions to use at the same time. Students will have to use higher order thinking and decision making skills during this activity.

Variations: Add objects at the 45 degree points of the compass.

Give the children a pattern to catch like east, west, east, east, west, west.

Compass Rose Juggling

Sequence the objects to progress from tossing to juggling.

Compass Tag - <http://www.eduplace.com/ss/act/compass.html>

Set up a variety of objects around the room with more than one of the same object in different parts of the room. Call out for the student to touch the east red dome marker, the south green beanbag, etc. As children become familiar with following the directions, have them give directions themselves. Play in small groups. Show children various maps with compass roses. Point out how north is usually (in most present-day maps) at the top of the map. Explain that they should check this every time they use a new map.

Maze 'N Moves Activities

1. Using the Activity Guide activities give the clues using cardinal directions. Let class members assist by calling out the cardinal direction to create the desired pathway. Continue as directed to solve the secret pathway. Use small signs on each side for N, S, E, and W.

2. Use a container of laminated direction cards for N, E, S, W. One student stands in the center of the grid while other students draw a letter from the container to direct movement. Continue until the student on the grid exits the grid at some location based on the directions pulled from the container.

Introducing Maps – A map is a picture of the ground.

Me On the Map, by Joan Sweeney

Series of maps – World, country, state, city, school, gym, playground.

Point out compass rose on maps.

Globe and Continents – *Thinking on Your Feet*, Jean Blaydes Madigan

Geo-spots, World ball.

Point Orienteering - 10-15 points that must be visited in a specific order.

Create a map of your school, gym, playground.

Use standard gym outline.

Score Orienteering – A fixed time is given to find as many controls as possible in any order.

Basic Compass Features

Magnetic Needle – a freely rotating magnetic needle; one end is a different color to indicate north.

Housing – a circular, rotating housing, for the needle

Dial – the dial around the circumference of the housing, marked from 0 to 360 degrees.

Orienting Arrow – this is located inside the housing and below the magnetic needle.

Orienting Lines – a set of lines parallel to the orienting arrow.

Direction of Travel Arrow (line) – this arrow points toward your objective; read bearings here.

Base Plate – a transparent, rectangular base plate is the foundation of the entire unit; can also be used as a ruler for measuring distances on a map.

Bearings in the Field:

A *bearing* is the direction from one place to another, measured in degrees of angle compared with true north. The round dial of the compass is divided into 360 degrees. The direction in degrees to each of the cardinal directions (N/S/E/W) is: north, 0 degrees; east, 90 degrees; south, 180 degrees; and west 270 degrees.

To *take* (measure) a bearing in the field means to measure the direction (not distance) from one point to another, either on a map or in the field.

1. Hold the compass in front of you and point the direction of travel arrow at the object whose bearing you want to find.
2. Then rotate the compass housing until the pointed end of the orienting arrow is aligned with the north-seeking (red) end of the magnetic needle (remember: "put the red to bed" or "put the dog in the house"). Read the bearing at the end of the direction of travel arrow.

To *plot* (follow) a bearing in the field means to set a certain bearing on the compass and then plot out, or follow, where that bearing points, on the map or in the field.

1. Rotate the compass housing until you have set the desired bearing at the direction of travel arrow, say 270 degrees (west).
2. Hold the compass level in front of you and turn your entire body until the north-seeking end of the magnetic needle is aligned with the pointed end of the orienting arrow ("red to bed; dog in house," etc.)
3. The direction of travel is now pointing in whatever direction you have set (in this case, 270 degrees or west).
4. You then proceed in that direction.

Orienteering Scavenger Hunt, PE Central, 6-12, (2nd grade has mastered this)

Six index cards with bearings will be used to follow three and four leg routes with a compass.

Practice plotting (following) selected bearings.

Example: 120°-10 Steps, 240°-10 Steps, 0°-10 Steps If correct students will end up where they started.

OnLine Orienteering Tape and Activity Guide, by George Hanson and John Horstman

This activity can be completed inside or outside.

Requires an area to extend the tape West (A or 1) to East (Z or 20) for 125 feet.

Learning Activities:

To pace, measuring every two steps, to estimate a specific distance.

To use a compass to find a bearing.

To follow multi-stage (two-three legged) course.

To self check

Pace Counting:

Pace – the distance between every TWO steps.

Take only two steps between each number. Practice pacing.

Start with right foot, count by 5's every time their left foot touches the ground.

Two and Three Legged Activities

Compass, pencil, challenge cards, and clipboard for each two students.
Combining pace counting and following a bearing.

1. Find the starting point on the tape.
2. Set and follow bearing, repeat for each leg.
3. Write down your ending number or letter.
4. Self check with teacher. Self-assessment sheets posted.

Community Mapping – faculty in-service activity.

Getting you know your school community.

Business, housing, parks, interview residents, and prepare report for faculty groups.

Geocaching – A sport of high tech treasure hunting using GPS units to find caches all over the world. www.geocaching.com

Search for caches near you or where you might be traveling.

Resources and Related Activities

Children's Literature Connections:

Compass Guide Poem, by Gareth Wicker

We Went Looking, by Aileen Fisher

Me On the Map, by Joan Sweeney

Music for young children – “Sing to Learn with Dr. Jean”

Whole Globe in Our Hands Names of Oceans

Cardinal Directions 50 States

Activity Rugs - Maps – miscellaneous.

Playground Fitness Course – PE Central, 3-5.

Directional Scavenger Hunt – *Field Day Survival Guide*

Orienteering Made Simple, by Bev Evans and Chris Messina, Great Activities, May-June 2002. pg. 34-35.

Map Mania, Michael A. DiSpezio, Sterling Publishing Company Inc.

World Book Encyclopedia presents MAPS, Andrew Haslam

Internet Resources

<http://www.williams.edu:803/Biology/orienteering/o~index.html>

<http://www.learn-orienteering.org/>

Geographical Information Services – U.S. Government – local maps

International Orienteering Federation - <http://www.orienteering.org/>

O in Schools Committee - <http://ocin.org/school/> Great Information**

Orienteering for the Young - <http://www.us.orienteering.org/OYoung>

Orienteering Unlimited School Adventure Program

<http://www.orienteeringunlimited.com/schooladventureprograms.htm>

United States Orienteering Federation, <http://www.us.orienteering.org/>