

Pre-visit lesson: Cardinal Points

1. Lesson Plan Information

Subject/Course: Math

Grade Level: 5

Topic: Geometry and Spatial Sense: Cardinal Directions

Name:

Date:

Time:

Length of Period:

2. Expectation (s)

Expectation(s) (Directly from the Ontario Curriculum):

Overall Expectations:

- Identify and describe the location of an object, using cardinal points.

Specific Expectations:

- Locate an object using the cardinal directions (north, south, east and west) and a coordinate system.

Learning Skills (Where applicable):

Collaboration

Teamwork

What do I want the learners to know or be able to do?

- The learners will be able to give specific directions using the cardinal points instead of term left and right.
- The learners will be able to follow directions using the cardinal points.

Today learners will:

- The learners will be able show where North, South, East and West are.
- The learners will be able to use a compass.

4. Learning Context:

The learners:

What prior experiences, knowledge and skills do the learners bring with them to this learning experience?

The students may have some knowledge from in school or outside experiences with using a compass. The students will know what North, South, West and East is.

Learning Environment:

- Classroom
- Gym or Field outside
- School

Materials:

- Signs labelled North, South, East and West
- Compass
- Writing paper

5. Teaching/Learning Strategies

Introduction:

How will I engage the learners? (e.g., motivational strategy, hook, activation of learners prior knowledge, activities, procedures, compelling problem).

The teacher will place a compass around the desks in the classroom, so two to three students can share, before the students come in from recess. The teacher will allow the students to explore the compasses and to get an idea what they are used for. Once the students had about 10-15 minutes to explore the compass, the teacher will get the students attention.

As a class, the students will complete the first two sections in the kwl chart, for about 5 minutes. The teacher will select a couple of volunteers to answer the following questions: What I Know? and What I want to Know? Once the first two questions are answered the teacher will post the chart in the classroom for the students to refer back to, if needed.

What I Know?	What I Want to Know?	What have I learned?

MIDDLE:

Teaching: *How does the lesson develop?*

How we teach new concepts, processes (e.g., gradual release of responsibility - modeled, shared, and guided instruction).

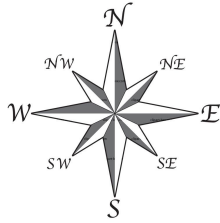
The teacher will post signs around the gym that says, North, South, East and West. The teacher will ask the students to sit on the circle in the gym. Once all the students are seated, the teacher will ask, "What do you think these signs stand for?" Select about 3-5 students to answer the question. If the students have not guessed the right answer, inform the students what they mean. "Each of these signs represent a cardinal direction. Does anyone know what a cardinal direction is or what they mean?" Select about 3-5 students to answer. "Cardinal directions are North, South, East and West. N is North, S is South, E is East and W is West. I am going to select one student to be the Compass Rose. Who would like to volunteer?" The teacher will select one student. "The Compass Rose's job is to call out a cardinal direction and tag the travellers that will be running by. The rest of the students are called travellers, it is your job to get to each direction without being touched by the Compass Rose. If you are touched, you need to stand in place and use your arms to touch the other travellers as they are running by. Does anyone have any questions?" Answer the questions the students may have. "Now the compass rose will stay in the middle and they can run around the gym to touch the travellers. Everyone get up and we will start and the Cardinal direction of North". Once all the students travelled to the cardinal direction of North, the game can begin. The Compass Rose can call out any direction the wish.

Once one game is complete the teacher will call the students to the centre of the gym and sit on the circle. The teacher will ask a student to give out a compass to each student or pair of students. The teacher will show the students now to use a compass. The teacher will have their own compass to show the students how to use it.



"First you want to make sure the compass is flat in your hands and the arrow of direction, is pointing away from you. Second you want to place the compass here your navel. Now we are going to find the direction of North. Now you want to make 0 degrees/North is in the line with your direction of travel. Now you need to walk slowly around until the white narrow is line up with the red two lines". As the students are doing this, the teacher will walk around the students and help any student who is in need. Once all the students have had a turn, the teacher will ask, "Where is North?" Select 1-3 student volunteer to answer the questions.

This is when the teacher will show students a compass rose. This will be made up/printed off before the lesson has started. "Now, where would East, West and South will be?"



The compass rose will show the students where North, South, East and West is located. "If north is this way, where would West, East, and South be located? Where is south located?" Pick 1-3 students to answer the question. "Where will East be?" Pick 1-3 students to answer the question. "Where will West be?" Pick 1-3 students to answer. The teacher will ask, "Can I have a volunteer to place the signs in the right positions according to our findings?" Pick one student. After this is complete, play another game of Compass Rose. Select two students to be Compass Rose. "For this time we will select two students to be compass rose." Pick two students. "Everyone else will travel North and once all the students are there, we will let the games begin".

Once the game is completed, the students and teacher will travel back to the class.

Consolidation and/or Recapitulation Process:

How will I bring all the important ideas from the learning experiences together for/with the students? How will I check for understanding?

Once the students are all back in class, they will complete the last section on the kwl chart, as a class. This will clarify and check for their understanding. If the students have any other questions regarding the how the compass works, answer the questions to the best of your ability or if you do not know the answer, be honest. Find the answer during lunch or recess and have the answer for the students when they come back.

What I know?	What I want to Know?	What have I learned?

Application:

What will learners do to demonstrate their learning? (Moving from guided, scaffolded practice, and gradual release of responsibility.)

The students will demonstrate their learning by travelling to the Cardinal direction that is called out by the Compass Rose. They will also show their understanding of how to use a compass by finding north and following the directions given to by the teacher.

