


LESSON PLANS: ALBERTA

Grade 6: Shape and Space (Measurement)

Angles

 45 MINS

powered by

 Mathletics

General Outcome:

- Use direct and indirect measurement to solve problems.

Specific Outcomes:

- Demonstrate an understanding of angles by:
 - identifying examples of angles in the environment
 - classifying angles according to their measure
 - estimating the measure of angles, using 45° , 90° and 180° as reference angles
 - determining angle measures in degrees
 - drawing and labelling angles when the measure is specified.

Introduction to Lesson

 10 MINS

Teacher Background:

Log in to Mathletics

[Teacher Console](#) > [Demonstrations](#) > [Concept Search](#).

Search protractor in the **Search** bar. Have students interact with the protractor to measure angles. Ask students to draw a shape that has this type of angle included in it.

Have students use their arms for the sides of the angle.

Ask students,

- Can you make a 90° angle with your arms?
- Can you construct an angle greater than 90° ?
- What happened to your arms?
- What do we call an angle that is larger than 90° ?
- What about when it is less?
- How do we properly measure an angle?

ITEMS NEEDED

- ✓ Interactive whiteboard
- ✓ Mathletics teacher login
- ✓ Mathletics Grade 6 eBook (Lines and Angles) printed for each student
- ✓ Markers
- ✓ Protractor

ASSESSMENTS

- ✓ Have students use self and peer assessment for the "Hand it over" activity.

ACCOMMODATIONS/ MODIFICATIONS

- ✓ Have students work with leveled groups or partners.
- ✓ Use this activity as a rotation.
 - 1st station: Measuring angles on the interactive whiteboard.
 - 2nd Station: "Hand it over" activity in eBooks
 - 3rd Station: Constructing polygons

EXTENSION OF LEARNING

- ✓ Have students complete the paper-folding activity in the Grade 6 eBook Geometry, Lines and Angles, question 1.
- ✓ Grade curriculum activities: Shape and Space-Angles: Classifying Angles, What Type of Angle?, Labelling Angles, and Measuring Angles.

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The Lesson

30 MINS

“Hand it Over” Activity

- Display “Hand it over” activity on interactive whiteboard. Sign in to **Mathletics Teacher Console > eBooks > Grade 6 > Geometry**. Click on “Lines and Angles”. Scroll to “Hand it over” activity on the last page.
- Have students work in partners or groups to trace their hands in different positions. Then have students estimate the size of the angles between their fingers. Have partners/groups exchange their hand with another group and measure the angles between the fingers. Label the fingers with the type of angle (e.g., acute, right, straight, obtuse).
Discussion Questions: How did your hand/finger angles differ from another group's? Did you have more acute, obtuse, or right angles? How would the position of your fingers affect the angles?
- In the designated box on the interactive whiteboard, generate a hand with the class that has one right angle one obtuse angle. How would this hand have to look? What other types of angles are in your hand? How do you know?



Constructing Polygons

- Search polygons in Concept Search. In **Mathletics Teacher Console > Demonstrations > Concept Search** click **Concept Search** again. Type “polygon” into **Search** bar.
- Review what makes a shape a polygon. Discuss what types of angles are present in different polygons. Review acute, obtuse, straight, and right angles again.

Ask students:

- What polygon could you draw with one 90° angle?
- What polygon could you draw with one acute angle?
- What polygon could you draw with two different types of angles?

Students can draw these independently, in small groups, or collaboratively on the interactive whiteboard.



After the lesson

5 MINS

- Discuss with students real-life examples of where we find angles.
- **Ask students:** What jobs/sports would require you to know how to measure an angle? (soccer, architect, designer, construction worker, fitness instructor, etc.) Where do we see angles in the classroom? at home? (clocks, desks, walls, rugs, rooms, etc.)



For more information contact our friendly team...

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