

### Activity 1: Explaining Terms Using Words and Tips

Explain the term *complimentary* using words from the Word Bank and the Tip below:

two angles

add up to 90 degrees

right angle

not next to

whose sum is 90 degrees

#### Tip

Sometimes it's hard to remember the difference between *supplementary* (adds to  $180^\circ$ ) and *complementary* (adds to  $90^\circ$ ). One phrase that may help is

"it's right to give compliments." A right angle is 90 degrees and, yes, 'compliment' and 'complement' are not the same word, but it's a way to remember which is which.

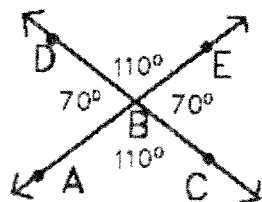
Explain the term *vertical angle* using the words below:



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## vertical angle

/vɜːrɪkələŋɡəl/



a pair of  
of vertical  
angles

They are congruent.

a pair of  
↓  
They are  
congruent.

↑  
vertical  
angles

Use the definitions below to compare complementary angles, supplementary angles and vertical angles:

Definitions:

Complementary angles are two angles with a sum of  $90^\circ$ .

Supplementary angles are two angles with a sum of  $180^\circ$ .

Vertical angles are two angles whose sides form two pairs of opposite rays. We can think of these as opposite angles formed by an X.

Activity 2: Using a Word Bank to Define Terms

Explain the term *adjacent angle* using words from the Word Bank:

common vertex

common side

no common interior points

Define the term *vertical angle* using these words from the Word Bank:

Word Bank

opposite

share vertex

lines cross

each other

Define the term *equilateral triangle* using these words from the Word Bank:

Word Bank

equilateral

congruent

three sides

Define the term *isosceles triangle* using these words from the Word Bank:

Word Bank

isosceles

congruent  
two sides

Define the term *pentagon* using these words from the Word Bank:

Word Bank  
polygon  
sides  
angles

Define the term *right triangle* using these words from the Word Bank:

Word Bank  
right triangle  
contains  
right angle  
90 degrees

Define the term *acute triangle* using these words from the Word Bank:

Word Bank  
acute triangle  
contains  
all angles  
smaller than

Define the term *obtuse triangle* using these words from the Word Bank:

Word Bank  
obtuse triangle  
contains  
one angle  
greater than

Define the term *line segment* using these words and expressions from the

Word Bank:

part of line

endpoints

two

Define the term \_\_\_\_\_ using these words from the Word Bank:

Define the term \_\_\_\_\_ using these words from the Word Bank:

**Activity 3: Partner Work: What am I?**

One partner describes one of the following shapes and the other partner guesses what it is.

I am a shape. I am a type of quadrilateral. I have four sides. They are all equal in length. I have four vertices. I have four right angles. The sum of my angles measure 360 degrees. What am I?

I am a shape. I am a type of parallelogram. I have four sides and four vertices. All of my sides are the same length. I do not have four right angles. What am I?

I am a shape. I am a type of quadrilateral. I have four sides and four vertices. I only have one pair of parallel sides. The sum of my angles measure 360 degrees. What am I?

I am a shape. I am a type of quadrilateral. I have four sides and four vertices. I have four right angles. I am not a square because all of my sides are not equal in length. The sum of my angles measure 360 degrees. What am I?

I am a shape. I have three sides. They are all equal in length. All sides are congruent. What am I?

I am a shape. I have three sides. Two sides are congruent. I have three angles. What am I?

I am a shape. I have three sides. No sides are congruent. What am I?

I am a shape. I have three sides. I have three angles. One angle contains ninety degrees. What am I?

**Activity 4: Writing Clues**

Students make their own What am I? Who am I? puzzles, using the attributes of a particular quadrilateral.

**Activity 5: Partner Work: Drawing**

Partner A tells partner B how to draw three different types of polygons.

Partner B explains how the polygons are similar and different, using the following words: bigger than, smaller than, same length, are congruent, parallel

### Sentence Stems: Using the Language of Comparison (Zandi)

**Partner A:** Ask your partner to make comparisons.

1. How are \_\_\_\_\_ and \_\_\_\_\_ alike?
2. What other similarities do \_\_\_\_\_ and \_\_\_\_\_ have?
3. What is the most significant similarity between \_\_\_\_\_ and \_\_\_\_\_?
4. Is there anything else that makes \_\_\_\_\_ and \_\_\_\_\_ similar?

**Partner B:** Answer your partner's questions, using the sentence stems below.

5. Both \_\_\_\_\_ and \_\_\_\_\_ are alike because \_\_\_\_\_.
6. Like \_\_\_\_\_, \_\_\_\_\_ has \_\_\_\_\_.
7. The most significant similarity between \_\_\_\_\_ and \_\_\_\_\_ is \_\_\_\_\_.
8. \_\_\_\_\_ and \_\_\_\_\_ are/have \_\_\_\_\_.

### Activity 6: Choral Practice

Word Bank (examples - some words may be used twice)

forever, sides, rays, degrees, angles, right angle, degrees, acute angle, obtuse angle, scalene angle, faces, edge, vertex, line, endpoint, equilateral triangle, isosceles triangle, vertex

1. The surfaces of a solid are called its \_\_\_\_\_.
2. Vertical angles share the same \_\_\_\_\_.
3. The place where the two surfaces of a solid meet is called an \_\_\_\_\_.
4. Edges meet at a point called the \_\_\_\_\_.
5. A ray is a part of a \_\_\_\_\_.
6. A ray only has one \_\_\_\_\_.
7. The sun has many light \_\_\_\_\_.
8. A ray extends or goes in one direction \_\_\_\_\_.
9. A quadrilateral is any polygon with four sides and four \_\_\_\_\_.
10. When you want to find out what type of a quadrilateral a shape is, you must look at its pairs of sides or measure its \_\_\_\_\_.
11. An angle with less than 90 degrees is called an \_\_\_\_\_.
12. An angle with more than 90 degrees is called an \_\_\_\_\_.
13. An angle with just 90 degrees is called a \_\_\_\_\_.
14. A straight line has 180 \_\_\_\_\_.

Activity 7: Frayer Model: Complete the Frayer Model below.

### POLYGON

Facts/Characteristics	Definition
Examples	Nonexamples