



UNIT 6
Geometry

Alaskan Math Standards (GLE's) for This Unit

These Alaskan math standards underly the language development of the unit. Many of these standards are addressed during the regular math program and in the concrete introduction of the key vocabulary words for the unit.

The student demonstrates an understanding of geometric relationships by

[7] G-1 using the attributes and properties of polygons (diagonals, number of sides and angles) to identify and classify regular or irregular polygons (M5.3.1)

[7] G-2 using the attributes and properties of prisms (vertices, length and alignment of edges, shape and number of bases, shape of faces) to identify and describe triangular or rectangular pyramids (M5.3.2)

The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by

[7] G-3 using a scale factor to solve problems involving similar shapes (e.g., scale drawings, maps) (M5.3.3)

[7] G-4 drawing or describing the results of applying transformations such as translations, rotations, reflections, or dilations to figures (L) (M5.3.5)

The student solves problems (including real-world situations) by

[7] G-5 determining the volume of cubes and rectangular prisms (M5.3.4)

[7] G-6 determining the surface area of rectangular prisms (M5.3.4)

[7] G-7 determining the circumference of a circle (M5.3.4)

Alaskan Language Standards (GLE's) for This Unit

AK.R.3.1. Reading: The student uses strategies to decode or comprehend the meaning of words in texts. (E.B.1)

[7] 3.2.2. Reading aloud short factual information (e.g., reports, articles) (L)

AK.R.3.3. Reading: The student restates/summarizes and connects information. (E.B.3)

AK.R.3.5. Reading: The student follows written directions. (E.C.2)

[7] 3.5.1. Completing a task by following written, multi-step directions (e.g., answer a multi-faceted text question) (L)

[7] 3.5.2. Identifying the sequence of steps in a list of directions (e.g., what is the first step, what is the second step)

[7] 3.3.4. Applying rules of capitalization (e.g., titles and proper nouns)

AK.W.3.4. Writing: The student revises writing. (E.A.5, E.A.8)

AK.E.A. A student should be able to speak and write well for a variety of purposes and audiences. A student who meets the content standard should:

E.A.1. Apply elements of effective writing and speaking. These elements include ideas, organization, vocabulary, sentence structure, and personal style.

E.A.2. In writing, demonstrate skills in sentence and paragraph structure, including grammar, spelling, capitalization, and punctuation.

E.A.3. In speaking, demonstrate skills in volume, intonation, and clarity.



INTRODUCTION OF MATH VOCABULARY

Geometry

Concrete Introduction of Key Vocabulary

Note: A vocabulary graphic is provided in this unit for each of the key words.

Definitions for all of the key words can be found in the glossary at the back of this program.

POLYGON

Before the lesson begins, nail six or more small nails into a portion of wood. Use an elastic band to create different shapes on the nails. Have individual students create shapes using the elastic. Use this to introduce polygons to the students.

POLYHEDRON

Cut the shape of a pyramid from cardboard. Ask the students watch as you assemble the triangle. Direct their attention to the number of faces on the triangle. Show the pyramid picture from the back of this unit. Use it and your model to introduce polyhedron to the students.

REGULAR (POLYGON)

Before the lesson begins, prepare a number of regular and irregular polygons, using paper. Mix all of the polygons together. Introduce the features of regular and irregular polygons.

Have the students sort and classify the polygons according to regular and irregular.

Geometry

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DIAGONAL

Use masking tape to make a square on the floor. Use string or yarn to show a diagonal line. Draw an intersection on the board. Use it to show how pedestrians may cross the intersection diagonally.

CONGRUENT

Before the lesson begins, collect pairs of identical items (i.e. cans of food, coins, containers, etc.). Mix all of the items together and have the students sort and match the different pairs. Use the pairs of items to introduce congruent shapes to the students.

Geometry

Concrete Introduction of Key Vocabulary

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RADIUS

Make a large masking tape circle on the floor. Group the students around the circle; and place a flashlight in the center of the circle. Dim the lights and turn on the flashlight. Direct the students' attention to the light from the center of the circle to the masking tape. Introduce this as the radius of the circle.

DIAMETER

Place another flashlight in the center of the masking tape circle, from exercise above. Place the flashlight so that the light shines in the opposite direction from the first flashlight. Use the bar of light to introduce diameter to the students.

CIRCUMFERENCE

Direct the students' attention to the masking tape circle, used above; and use it to introduce circumference. Demonstrate the use of pi to determine a circle's circumference: π (3.14) \times the radius of the circle. Give the students circles of different sizes. Have them determine the circumferences of the circles.

Geometry

Concrete Introduction of Key Vocabulary

Note: A vocabulary graphic is provided in this unit for each of the key words.

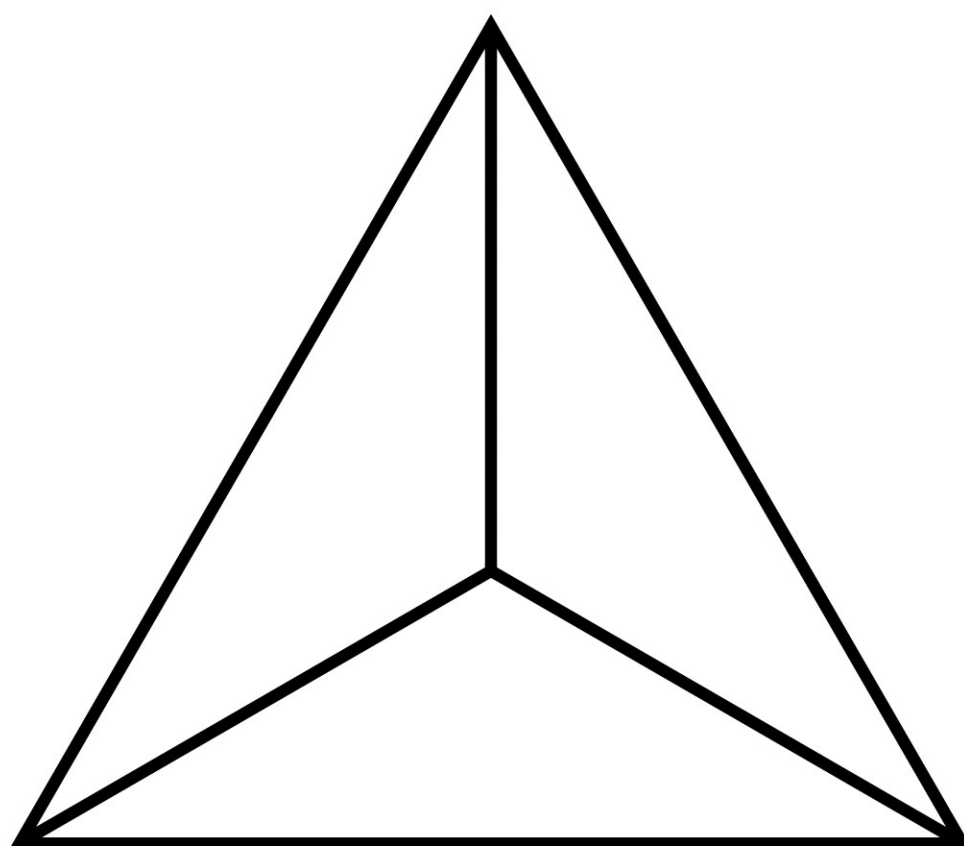
Definitions for all of the key words can be found in the glossary at the back of this program.

QUADRANT

Show the students a pizza or a cut-out of a pizza. As they watch, cut one quarter of the pizza off. Use this to introduce quadrant as it relates to a circle.

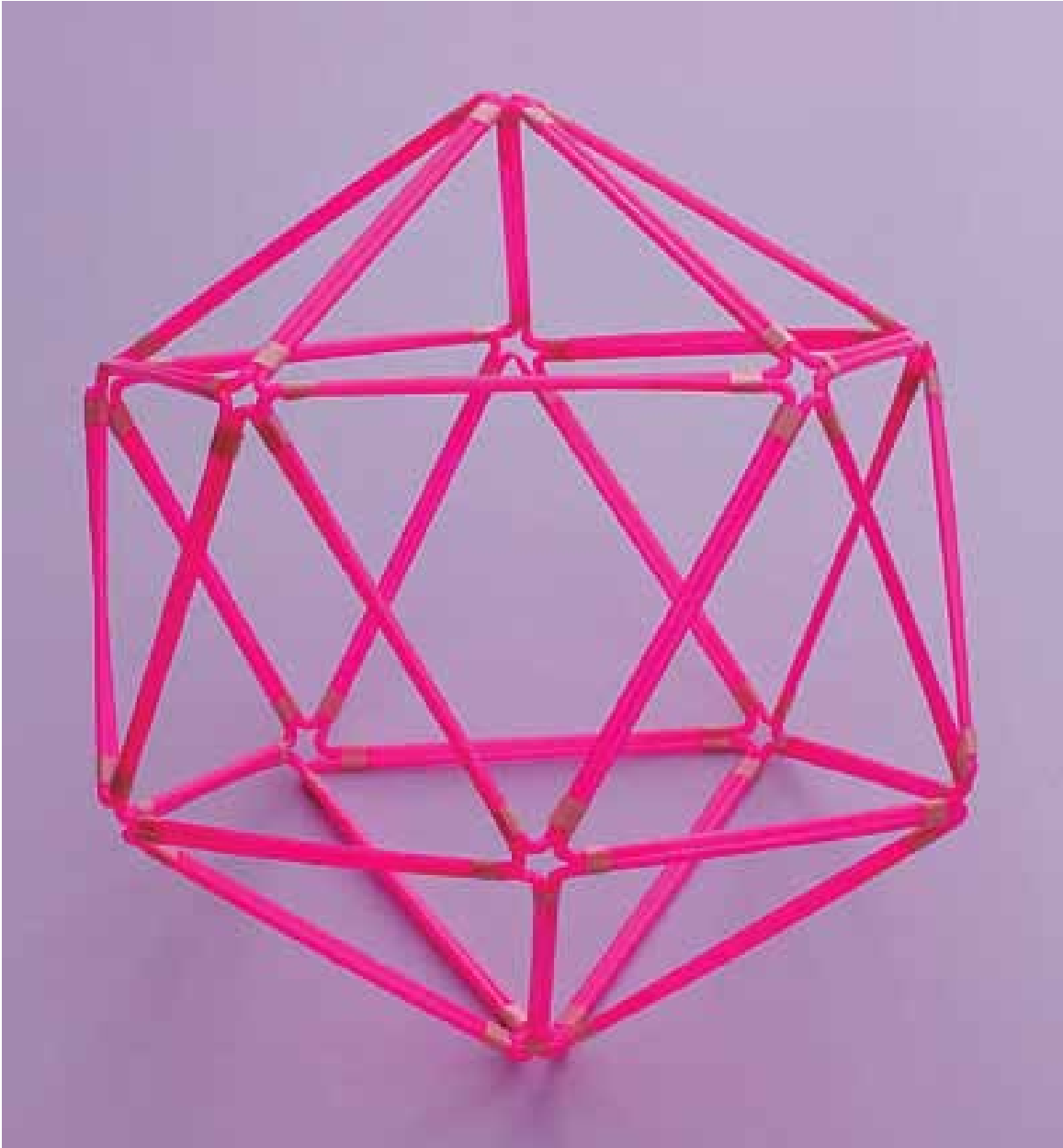


VOCABULARY PICTURES



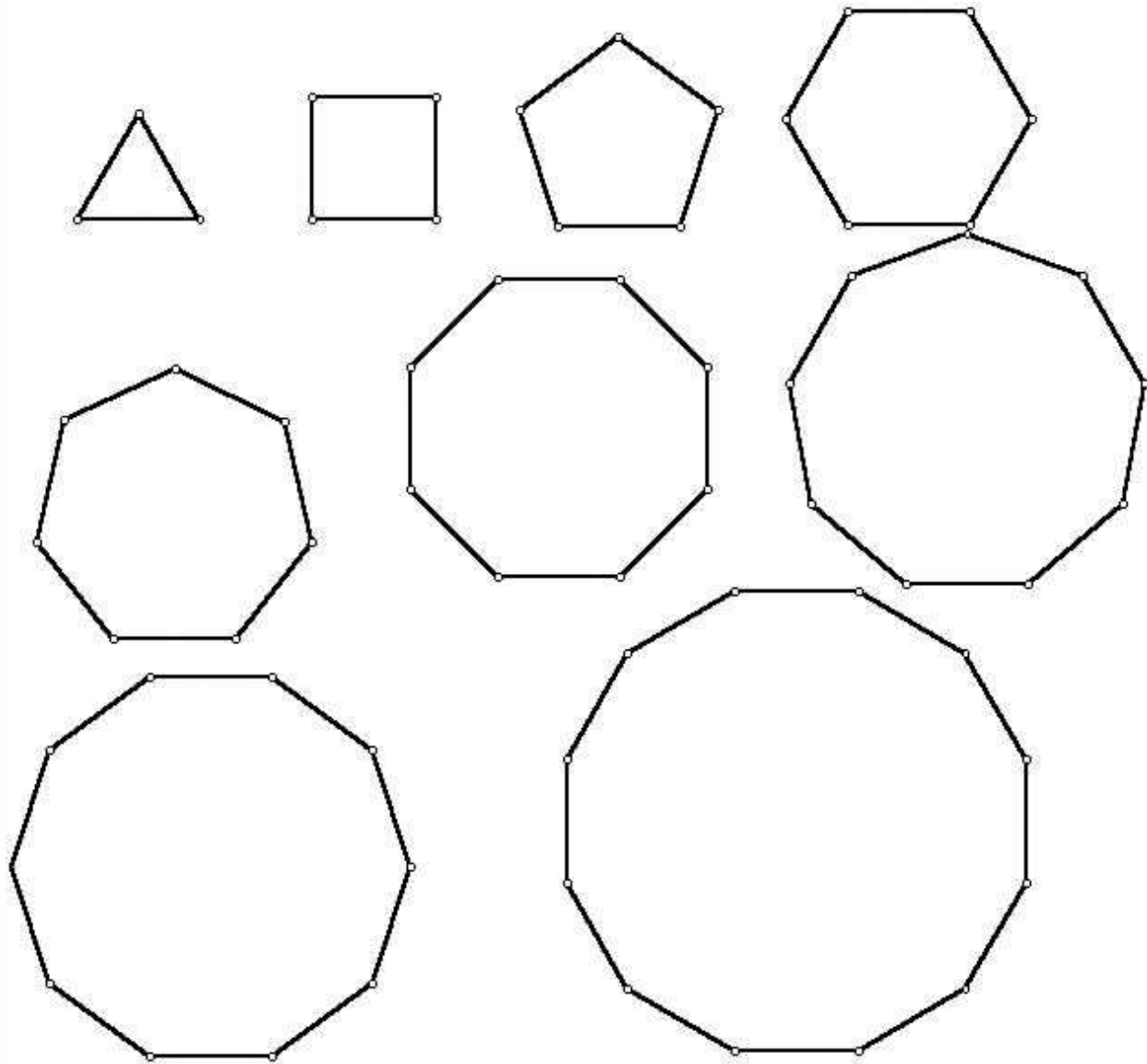


POLYGON



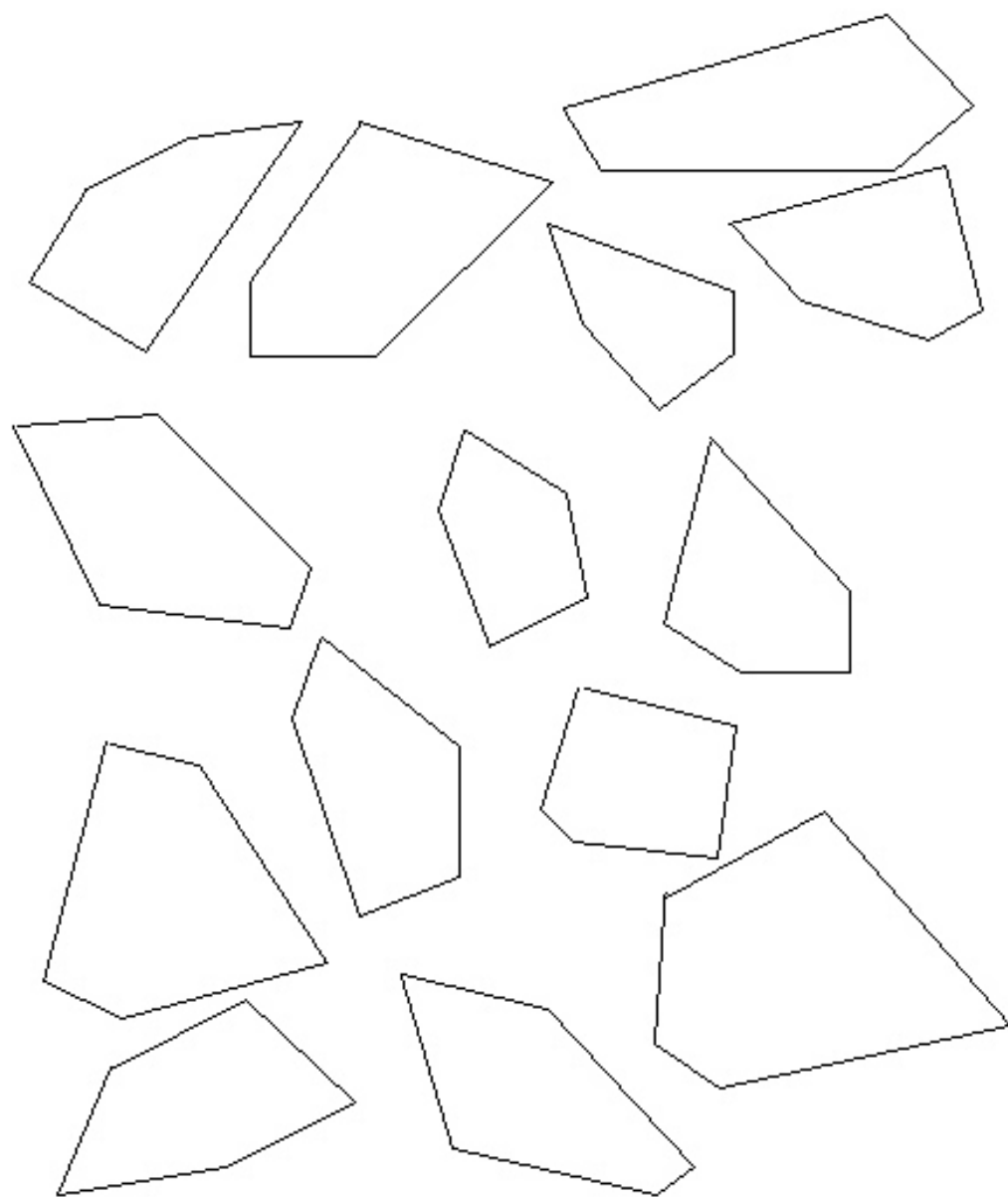


POLYHEDRON





REGULAR (POLYGON)





IRREGULAR (POLYGON)



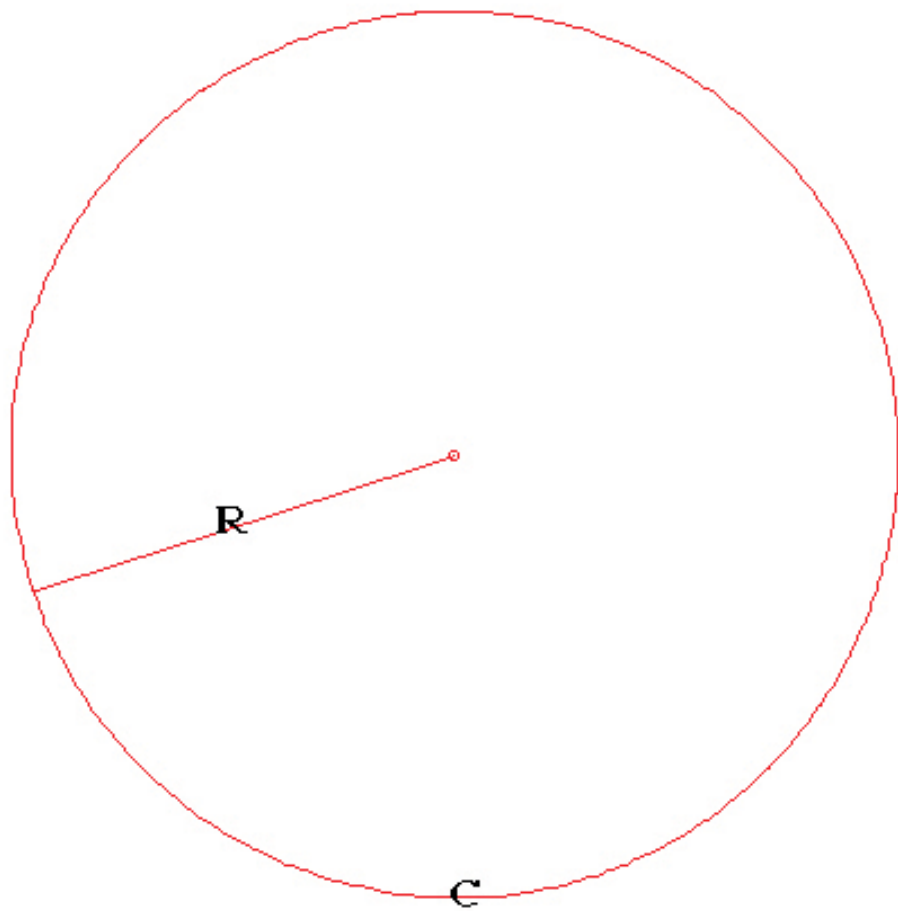


DIAGONAL



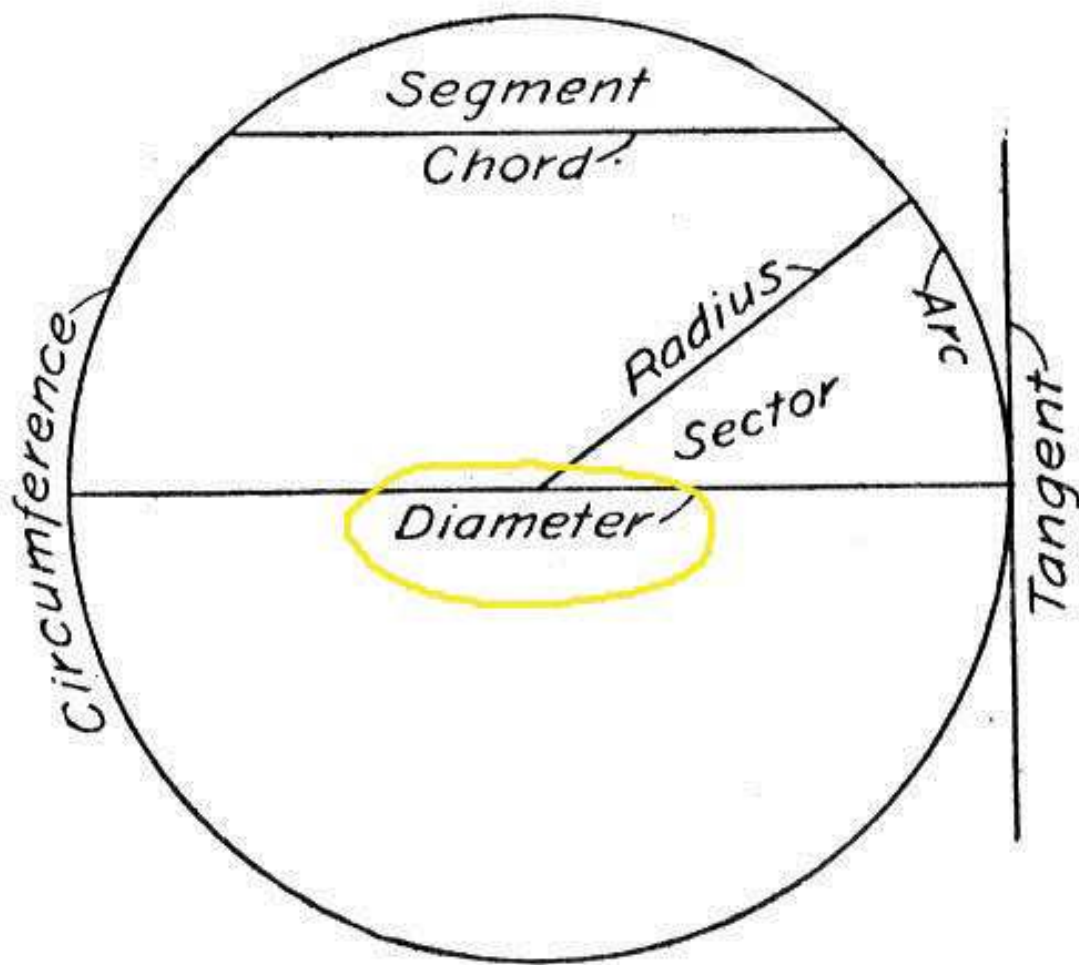


CONGRUENT



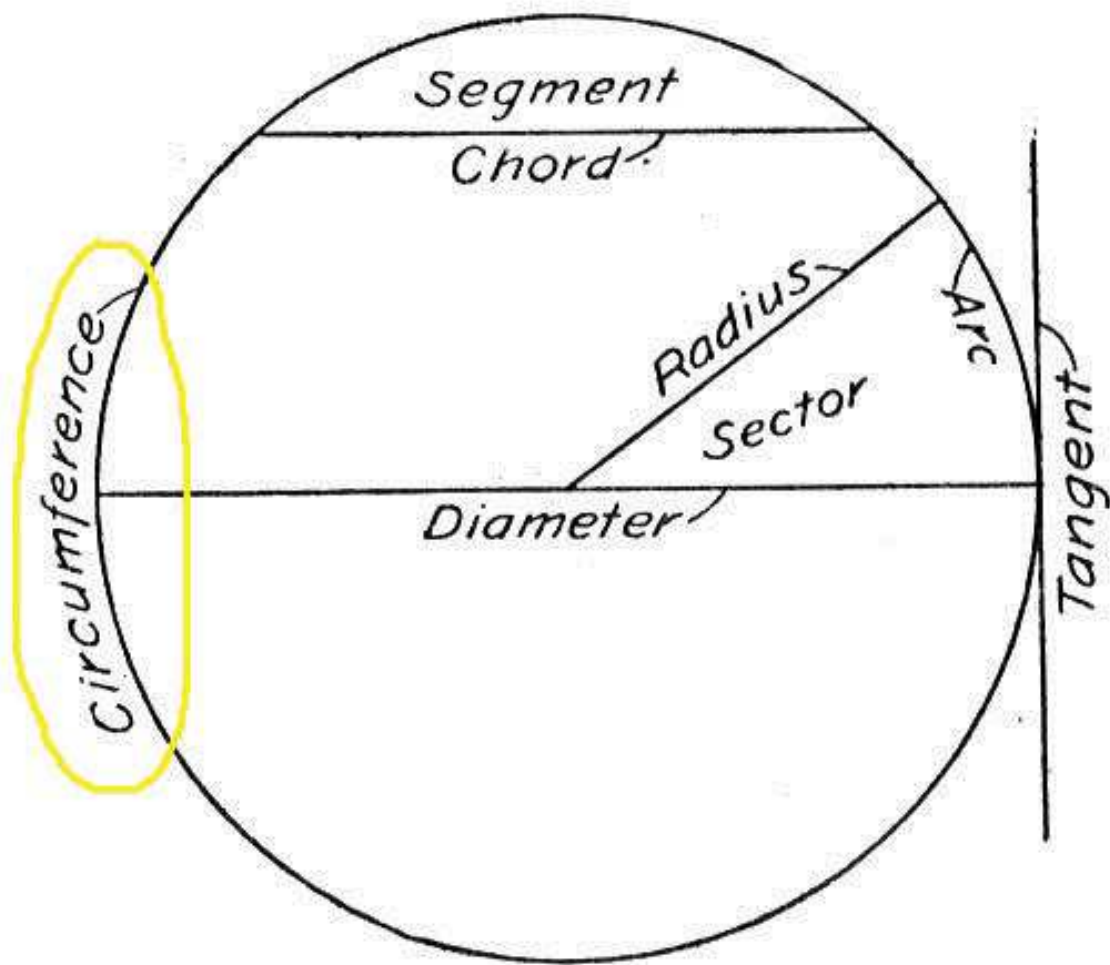


RADIUS



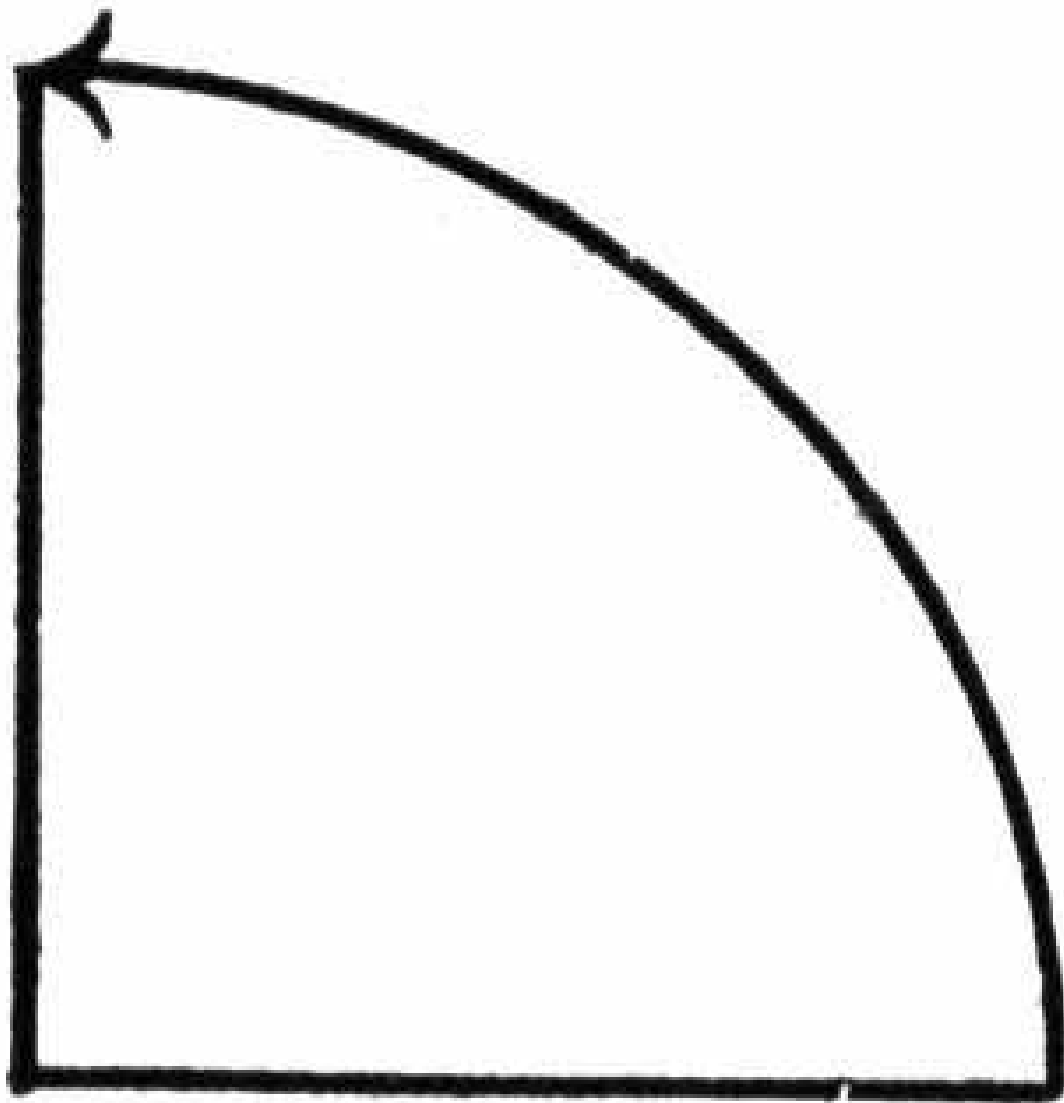


DIAMETER





CIRCUMFERENCE





QUADRANT



LANGUAGE ACTIVITIES

Language and Skills Development

LISTENING

Review the key math words introduced in this unit. If the vocabulary pictures were not presented during the introduction, show them to the students at this time.



Mini Pictures

Provide each student with a copy of the mini-pictures page from the Student Support Materials. When you say the key words, the students must find the pictures for them. Then, have the students cut out the pictures. Say the keywords and the students should hold up the pictures for them.

Stretch

Place the vocabulary pictures on the floor, in a scattered form. The pictures should be quite close together. Have a student stand beside the pictures. Say a vocabulary word for one of the pictures. The student should place his/her left foot on that picture. Then, say other vocabulary words and the student must identify the correct pictures with different parts of his/her body. You may wish to have two students participate in this process at the same time for added motivation.

Half Match

Collect the picture halves from the previous activity. Mix all of the halves together and give them to the students. Say a sentence, leaving out the key word. The two students who have the illustration halves for the word that completes the sentence should show their halves. Continue in this way until all of the illustration halves have been presented.

Searchlight

Have two students stand, facing one another. Mount the vocabulary graphics on the board and number them. The object of the activity is for the two students to look at each other without laughing. The first student to laugh must then identify a vocabulary picture by a number from the board. If both students laugh, then both students must identify a vocabulary picture for the numbers you say from the board. Repeat with other pairs of students.



Language and Skills Development

Three Sentences

Provide each student with three blank flashcards. Each student should then write the numbers 1 to 3 on his/her cards (one number per card). Say three sentences, only one of which contains a vocabulary word. The students should listen carefully to the three sentences that you say. After saying the three sentences, each student should then show his/her number card that represents the number of the sentence which contained the vocabulary word. Repeat with other sets of sentences.

Funnel Vision

Before the activity begins, collect a large funnel. Have a student stand at the front of the classroom with his/her back to the other students. Give the student the funnel. Give the vocabulary pictures to the other students in the class. The students should hold their pictures up, facing the front of the classroom. Say a vocabulary word. When you say “Go,” the student with the funnel should place the funnel over his/her eyes and turn to face the other students. The student must then look through the funnel to find the picture for the vocabulary word you said. This activity may be conducted with two players (each player having a funnel). The winner of each round is the student who locates the correct picture first. Have the students in the class exchange pictures for each new round of the activity. Repeat.

Language and Skills Development

SPEAKING



Visual Memory

Mount the vocabulary pictures on the board. The students should look carefully at the pictures. Then, ask the students to close their eyes. Remove one of the pictures from the board and place it to the side. The students should then open their eyes and identify the “missing picture.” Continue in this way until all of the pictures have been removed. This activity can also be done in reverse. In this way, prepare two or three extra sets of vocabulary pictures. Mount a number of pictures on the board. The students should look carefully at the pictures. Then, have the students close their eyes. Add another picture to the board. The students should open their eyes and identify the “new picture.” This activity (and the previous form of the activity) may be done in team form. In this case, the first player to identify the new or missing picture wins the round.

Number What?

Mount the vocabulary graphics on the chalkboard. Number each graphic. Call one of the numbers and the students should identify the graphic that is labeled with that number. Continue in this way until all of the vocabulary graphics have been identified a number of times. To add “spice” to the activity, you may wish to say a simple oral math problem, the answer to which is equal to one of the numbers on the chalkboard. (For example, you could say, “Six plus four, minus three, plus one.” The answer would be “Eight.” In this case, the students should identify the vocabulary graphic with the numeral “8” beside it.) This activity may also be done in team form. The first player to solve the math problem and then to identify the graphic that is labeled with the number answer to the math problem, wins the round.

Hand Tag

Group the students in a circle on the floor. Have the students place their hands on the floor, palms down. Stand in the center of the circle with the vocabulary picture and a flashlight. The object of the activity is to attempt to tag a student’s hand or hands with the light of the flashlight. The students must pull their hands from the circle when they think they are about to be tagged. When you eventually tag a student’s hand or hands, he/she must then say a complete sentence using the word for a vocabulary picture that you show. Repeat this process until many students have responded.



Language and Skills Development

Half Match

Before the lesson begins, prepare a photocopy of each of the vocabulary pictures. Cut each of the photocopied pictures in half. Give the picture halves to the students (a student may have more than one picture half). Say one of the vocabulary words. The two students who have the halves of the picture for that word must show their halves and repeat the word orally. Continue in this way until all of the vocabulary words have been reviewed. This activity may be repeated more than once by collecting, mixing, and redistributing the picture halves to the students. This activity may also be adapted for team form. To do this, cut each of the vocabulary pictures in half. Place half of the pictures in one pile and the other halves in another pile (one pile for each team). Say a vocabulary word. When you say “Go,” the first player from each team must rush to his/her pile of picture halves. Each player must find the half of the picture for the vocabulary word you said. The first player to correctly identify the picture half and to repeat the vocabulary word for it wins the round. Repeat until all players have played.

Picture Outline

Mount the vocabulary pictures on the board. Draw a chalk outline around the sides of each picture. Review the pictures with the students. When an outline has been created for each picture, remove the pictures from the board (being certain to recall their original locations on the board). Number each of the outlines and call upon a student to recall the vocabulary word for the picture that goes with that outline. Repeat this process until all of the vocabulary words have been said by the students in this way.

Language and Skills Development

READING

Introduce the math sight words to the students — match the sight words with the vocabulary graphics. The sight words are included in the Student Support Materials, attached to these lesson plans.



Sight Recognition

Right or Wrong?

Mount the sight words on the board. Point to one of the sight words and name it. The students should repeat the sight word. However, when you point to a sight word and say the wrong word for it, the students should remain silent. Repeat this process until the students have responded accurately to all of the sight words a number of times.

Configurations

Before the activity begins, print the sight words on an overhead transparency sheet (fill the transparency with words). Place the transparency on an overhead projector and project the sight words onto the board. Review the sight words with the students. Then, outline each of the sight words on the board with chalk. When a configuration has been created for each sight word, turn the overhead projector off. Then, point to one of the configurations and call upon a student to identify the sight word for the configuration. Continue in this way until all of the sight words have been correctly identified. You may wish to turn the projector on momentarily to verify a student's response.

Student Support Materials

Have the students complete the sight recognition and encoding activities in the Student Support Materials. When finished, review their work.

Decoding/Encoding

Letter Encode

Give each student his/her envelope that contains the alphabet letters. Show a picture from this unit. The students must use the cut-out letters to spell the word for the picture. Review the students' work. Repeat, until all of the words have been spelled.



Language and Skills Development

Sensory Letters

Stand behind a student. Use the index finger of your writing hand to “write” a letter/syllable from a sight word on the student’s back. The student should feel the letter/syllable. Then, the student must name a sight word that contains that letter/syllable. This activity may also be done in team form. In this case, group the students into two teams. “Write” a letter/syllable on the backs of the last players in each team. When you say, “Go,” the last player in each team must repeat this process with the player in front of him/her. The players should continue in this way until the first player in the team feels the letter/syllable. That player must then identify a sight word that contains that letter/syllable. The first player to do this successfully wins the round. Repeat until all players have played.

Student Support Materials

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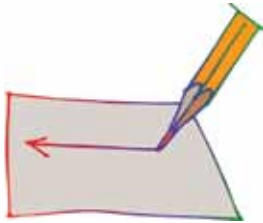
Reading Comprehension

Student Support Materials

Have the students complete the sight recognition and encoding activities in the Student Support Materials. When finished, review their work.

Language and Skills Development

WRITING



Every Second Letter

Write a sight word on the board, omitting every second letter. Provide the students with writing paper and pens. The students should look at the incomplete word on the board and then write the sight word for it on their papers. Repeat using other sight words.

This activity may also be done in team form. In this case, have the incomplete words prepared on separate flash cards. Mount one of the cards on the board. When you say “Go,” the first player from each team must rush to the board and write the sight word for it—adding all of the missing letters. Repeat until all players have participated.

Mirror Writing

Group the students into two teams. Have the first player from each team stand in front of the board. Give each of the two players a small, unbreakable mirror. Stand some distance behind the two players with pictures for the sight words. Hold up one of the pictures. When you say “Go,” the players must use the mirrors to look over their shoulders to see the picture you are holding. When a player sees the picture, he/she must write the sight word for that picture on the board. The first player to do this correctly wins the round. Repeat this process until all players in each team have had an opportunity to respond.

What’s Your Letter?

Provide each student with writing paper and a pen. Say a sight word. Each student should then write ONE letter from that word (any letter) on their paper. Review the students’ responses to determine if all letters from the sight word were used. If all letters from the sight word were not used, ask the students to identify the letters that are “missing.” Repeat with other sight words.

Word Completion

Before the activity begins, prepare clozure cards for the sight words; omit letters and syllables. Provide each student with a clozure card. Call upon the students to complete their words on the clozure cards by writing in the missing parts. Afterward, review the students’ responses.



Language and Skills Development

Dash

Group the students into two teams. Make two sets of dashes on the board — each set should be the same and should represent the number of letters in a sight word. When you say “Go,” the first player in each team must rush to his/her set of dashes on the board. Each player must then write a sight word that fits the number of dashes. Accept any sight word that fits the dashes. The first player to do this correctly wins the round. Repeat with other sets of dashes until all students have had an opportunity to participate.

Silent Dictation

Provide each student with writing paper and a pen. The students should watch carefully as you move your lips as though you are saying one of the sight words (do not voice the word). After “lipping” the sight word, each student should write that word on his/her sheet of paper. Repeat this process with other sight words. Afterwards, review the students’ responses.

Student Support Materials

Have the students work on the activity pages from the Student Support Materials from this unit. Afterward, review their work.



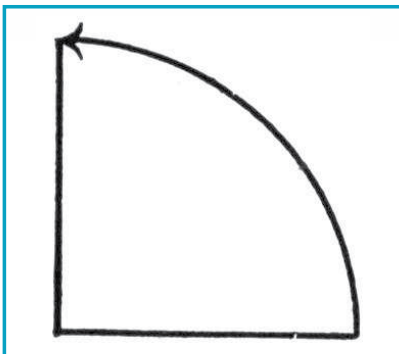
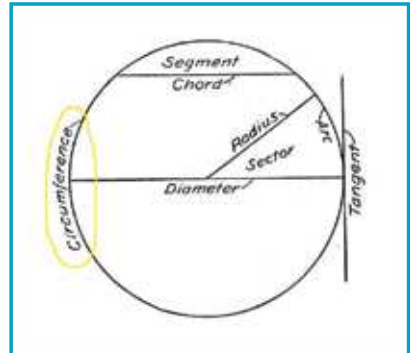
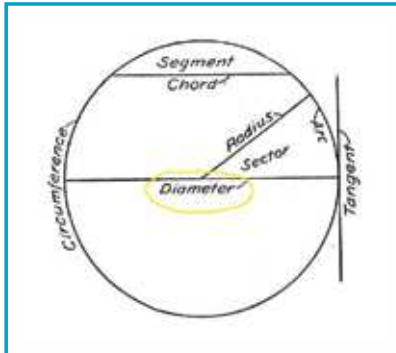
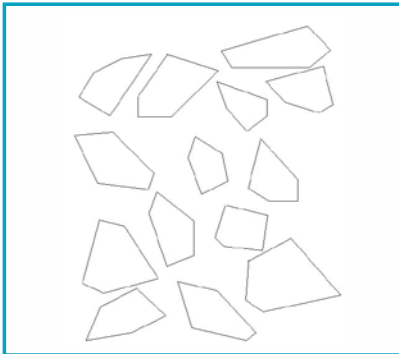
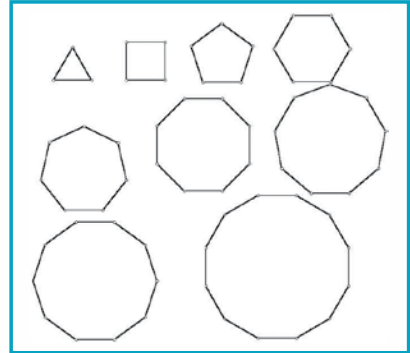
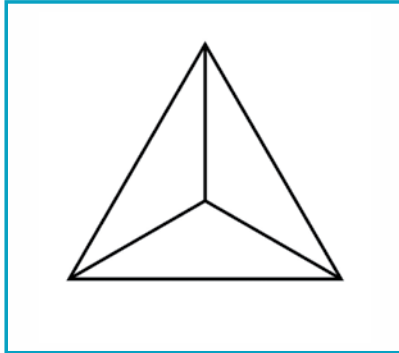
STUDENT SUPPORT MATERIALS

Listening • Mini Pictures

Listening: Mini Pictures



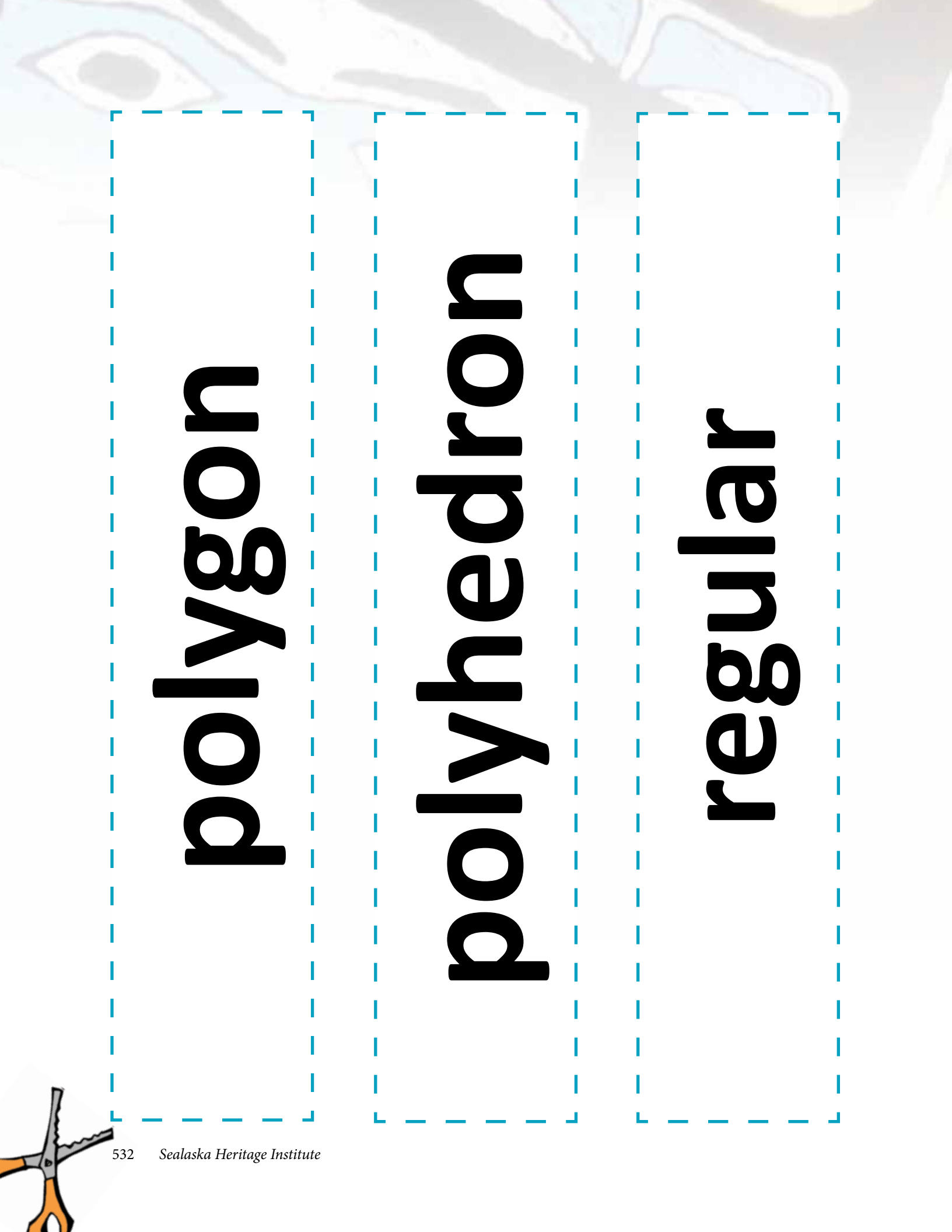
Have the students cut out the pictures. Say the key math words from this unit, and the students should hold up the pictures for them.





STUDENT SUPPORT MATERIALS

Sight Words



polygon

polyhedron

regular

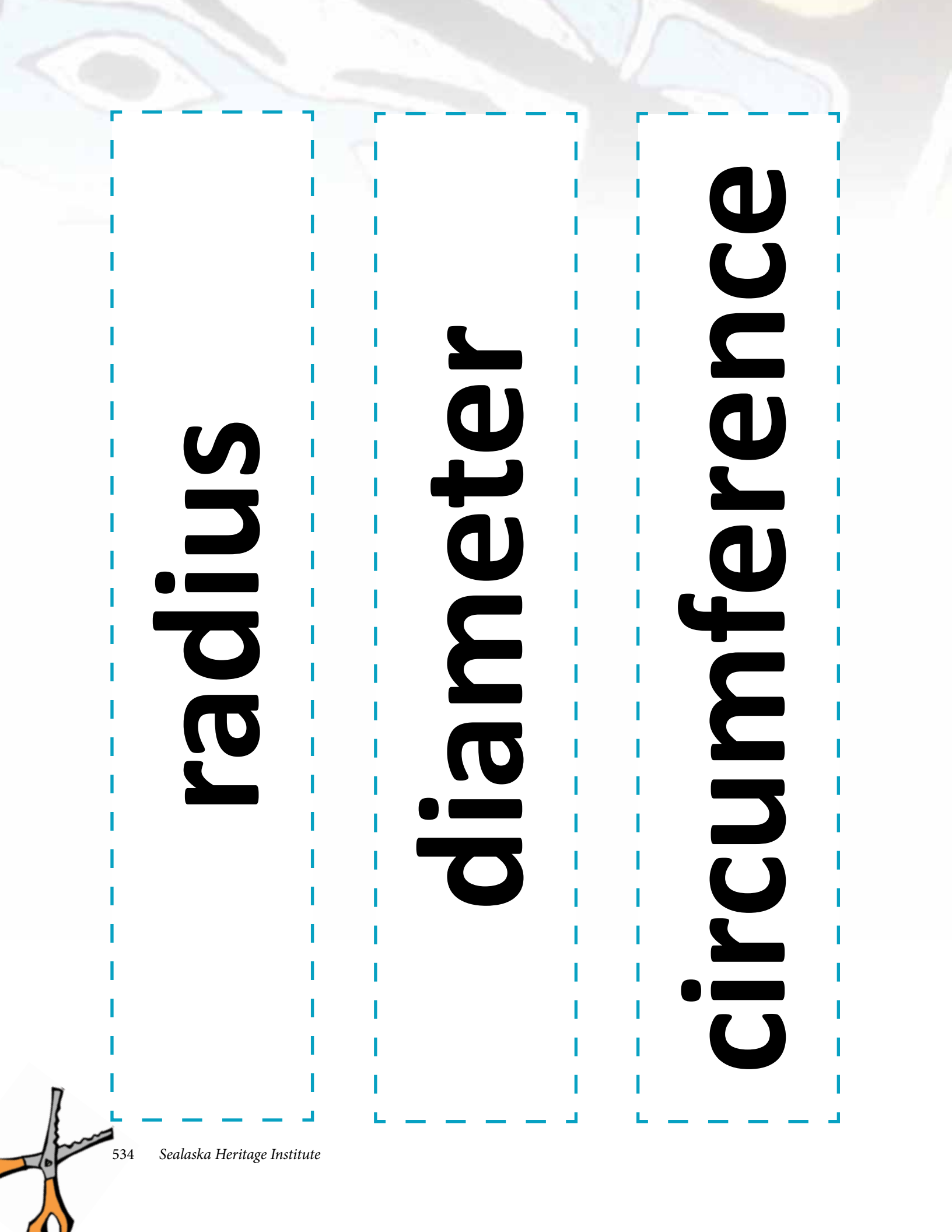




irregular

diagonal

congruent

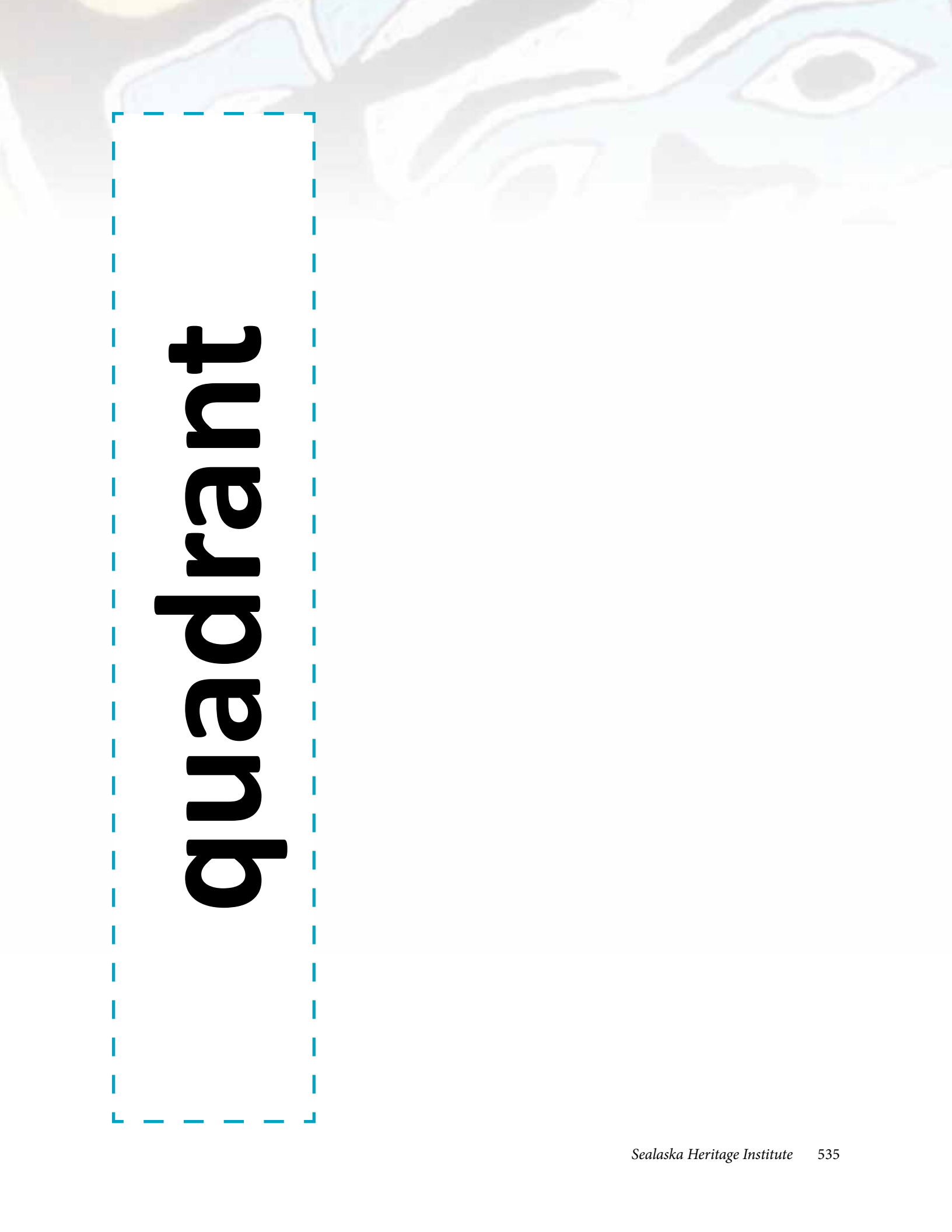


radius

diameter

circumference



A stylized, light-colored illustration of a person's face, possibly a Native American, is visible in the background. The face is rendered in shades of light blue and green, with large, expressive eyes and a prominent nose. The illustration is positioned in the upper right quadrant of the page.

quadrant



STUDENT SUPPORT MATERIALS

Reading • Sight Recognition

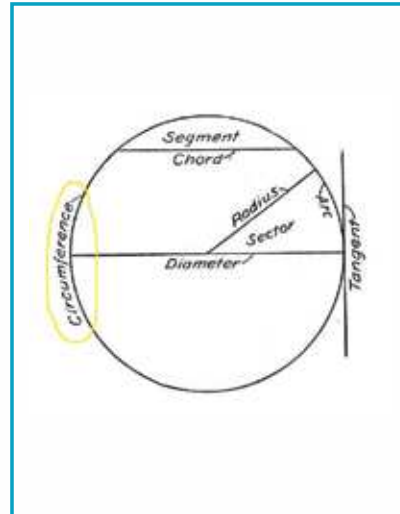
Sight Words Activity Page



Have the students circle the word for each picture.



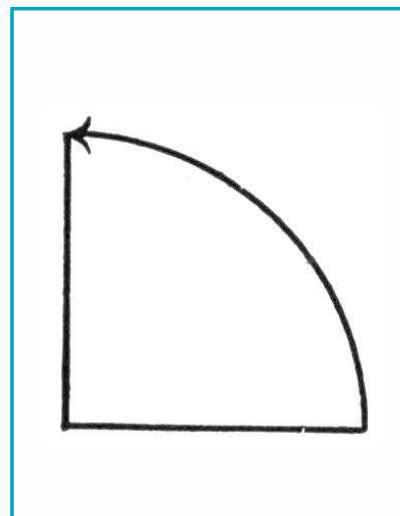
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- polyhedron
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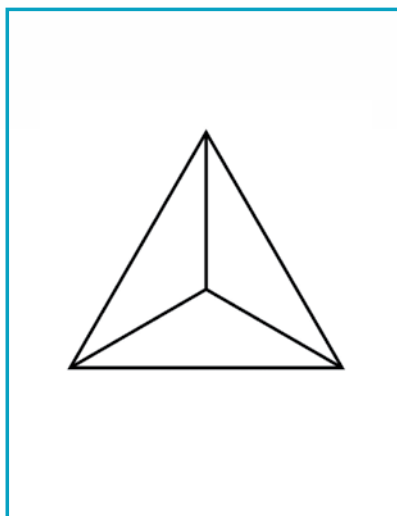
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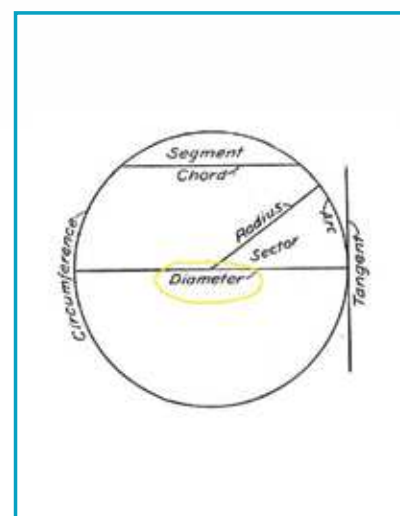
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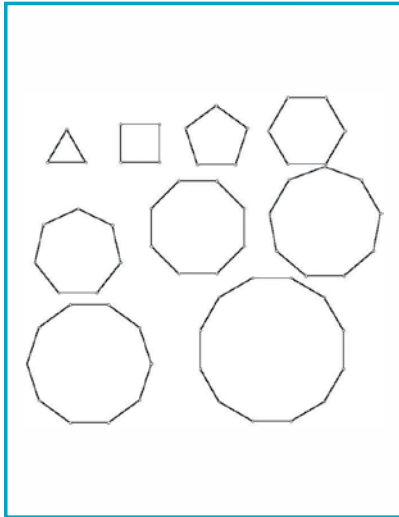


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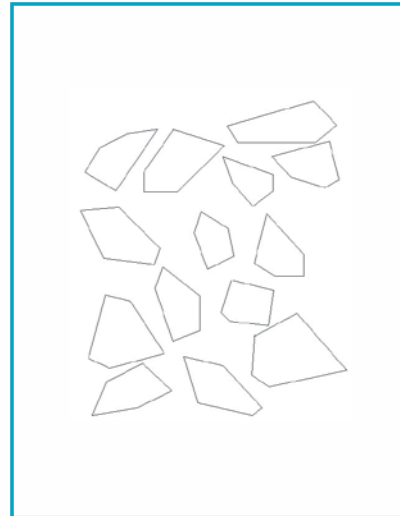


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Sight Words Activity Page



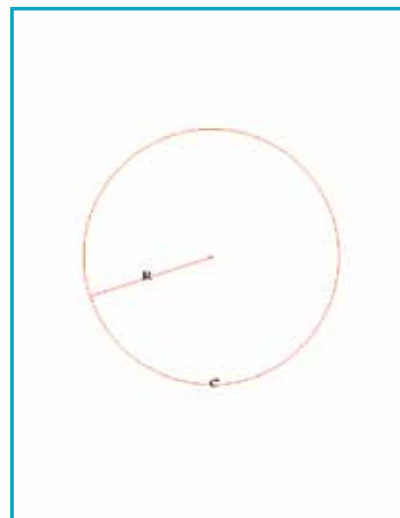
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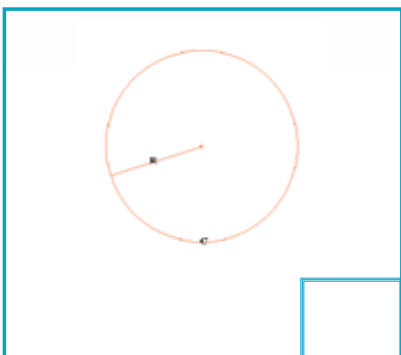
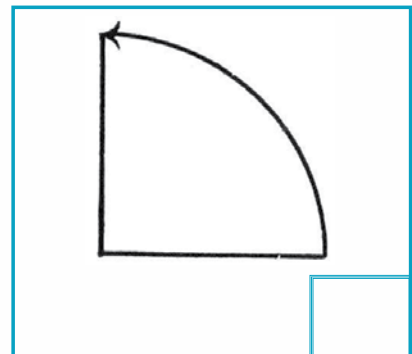
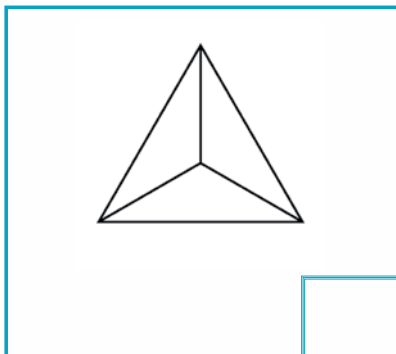
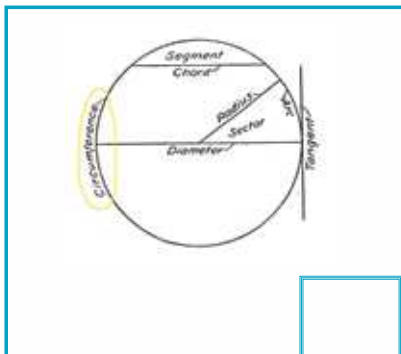
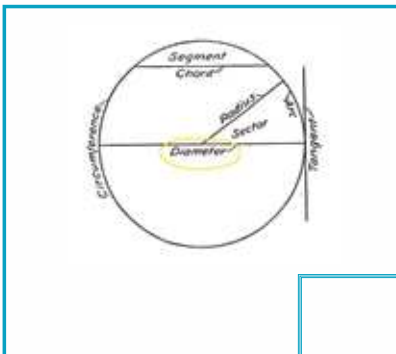
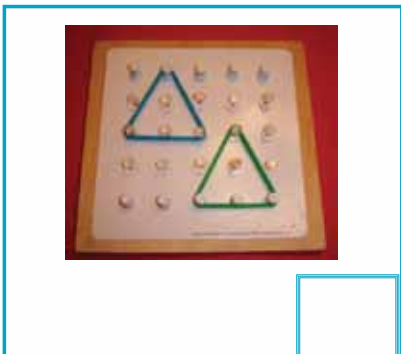
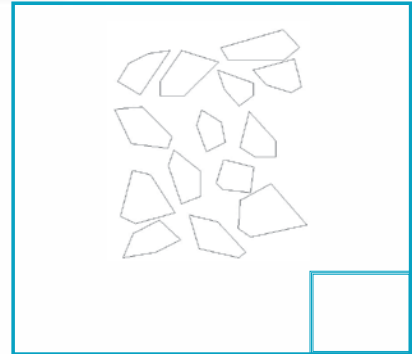
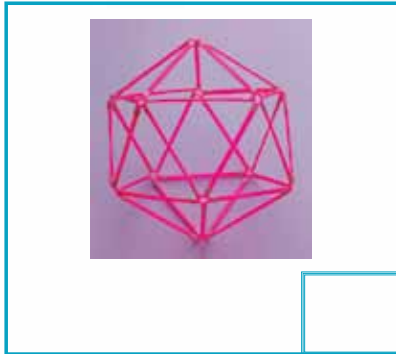
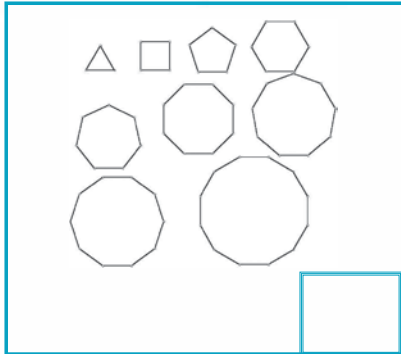


polygon
polyhedron
regular
irregular
diagonal
congruent
radius
diameter
circumference
quadrant

Sight Words Activity Page



Write the numbers on their correct vocabulary graphics.



1. polygon
2. polyhedron
3. regular
4. irregular
5. diagonal
6. congruent
7. radius
8. diameter
9. circumference
10. quadrant

Sight Words Activity Page



Highlight or circle the words in this word find.

diameter
polyhedron
radius
quadrant

diagonal
regular
irregular
polygon

circumference
congruent

p c o r e a u d i a g o n a l n y e
g o o u r e i i r r e g u l a r g i
c i r c u m f e r e n c e i r a y
n p m e i r r e g u l t l d a o r o
i y d l o g e e r a d i u o s r d e
g r i c e r q u a d r a n t n p n t
d e h p c o n g r u e n t n e o f r
o d i a m e t e r e r n e y n r u c
o o i u c n r a d i u s r p c c n d
o c o l p o l y g o n m e o o s c t
r p o l y h e d r o e l d r u l e r
r g l r r n p p o l y h e d r o n n
a e r u d l d i a m e t e e r r r d
l e e u o i e r n r c d i a g o n r
m u r d c g p o l y g o o f a u n u
n r r e g u l a r g r l q d l n p u
u c o n g r u e c e l r u r o i r p
r c i r c u m f e r e n c e r o e o
u r e g u l a c r q u a d r a i r y
u r y n a a g r c a a e y e o n r q

Sight Words Activity Page

ANSWER KEY



diameter
polyhedron
radius
quadrant

diagonal
regular
irregular
polygon

circumference
congruent

p c o r e a u **d i a g o n a l** n y e
g o o u r e i **i r r e g u l a r** g i
c i r c u m f e r e n c e i r a y
n p m e i r r e g u l t l d a o r o
i y d l o g e e r a d i u o s r d e
g r i c e r **q u a d r a n t** n p n t
d e h p **c o n g r u e n t** n e o f r
o **d i a m e t e r** e r n e y n r u c
o o i u c n **r a d i u s** r p c c n d
o c o l **p o l y g o n** m e o o s c t
r p o l y h e d r o e l d r u l e r
r g l r r n p **p o l y h e d r o n** n
a e r u d l d i a m e t e e r r r d
l e e u o i e r n r c d i a g o n r
m u r d c g p o l y g o o f a u n u
n r **r e g u l a r** g r l q d l n p u
u c o n g r u e c e l r u r o i r p
r **c i r c u m f e r e n c e** r o e o
u r e g u l a c r q u a d r a i r y
u r y n a a g r c a a e y e o n r q



STUDENT SUPPORT MATERIALS

Reading • Encoding

Encoding Activity Page

Have the students cut out the word parts and glue them into their correct words.



poly_____

poly_____dron

re_____lar

i_____egular

di_____onal

he	rr	ag
----	----	----

gu	ra
----	----



Encoding Activity Page



con_____ent

_____dius

d_____meter

circum_____ence

quad_____

ia	gon	gru
----	-----	-----

fer	rant
-----	------

Encoding Activity Page

Have the students cut out the word halves and glue them together to create the key words for this unit.



poly

gruent

polyhe

ular

reg

onal

irregu

gon

diag

dus



Encoding Activity Page



con

lar

ra

ference

diam

dron

circum

drant

qua

eter

Encoding Activity Page

Cut out and encode the syllables of the words OR number the syllables in their correct sequence.



ly ||| dron ||| po ||| he

ir ||| lar ||| reg ||| u



Encoding Activity Page



cum || **cir** || **ence** || **fer**

ter || **di** || **me** || **a**



STUDENT SUPPORT MATERIALS

Reading Comprehension

What's the Answer?



Read the text and then select the correct answer for it. Fill in the bullet beside the answer of your choice.

- ① 1. A polygon is a
 - function.
 - two dimensional shape.
 - three dimensional shape.
 - diagonal line.

- ② 2. A polyhedron is a
 - two dimensional polygon with irregular faces.
 - three dimensional polygon with irregular faces.
 - solid with flat faces that are polygons.
 - congruent shape with no faces.

- ③ 3. A regular polygon has
 - irregular angles and equal sides.
 - equal angles and irregular sides.
 - has equal angles and equal sides.
 - congruent angles and a variable.

- ④ 4. An irregular polygon does not have equal angles or sides
 - ever.
 - sometimes.
 - only with prime numbers.
 - always.

- ⑤ 5. A diagonal line in a shape runs from
 - a congruent shape to a radius.
 - one corner to another.
 - the circumference to the radius.
 - one side to another.

- ⑥ 6. Congruent shapes are
 - composites.
 - irregular.
 - the same.
 - similar.

What's the Answer?



- 7 The radius of a circle is
- the length of the diameter.
 - a diagonal line.
 - is congruent.
 - half of its diameter.
- 8 The diameter is a straight line going through the center of a circle
- connecting two points on the circumference.
 - connecting an irregular polygon to a radius.
 - connecting the radius to a regular angle.
 - connecting three points near the circumference.
- 9 The circumference is
- the diameter of a circle.
 - a radius that touches the edge of a circle.
 - an irregular polygon with equal angles.
 - the distance around the edge of a circle.
- 10 A quadrant is
- a quarter of a circle.
 - half the radius of a circle.
 - a half circle.
 - a third of a circle.

What's the Answer?

ANSWER KEY



1. A polygon is a
 - function.
 - two dimensional shape.
 - three dimensional shape.
 - diagonal line.

2. A polyhedron is a
 - two dimensional polygon with irregular faces.
 - three dimensional polygon with irregular faces.
 - solid with flat faces that are polygons.
 - congruent shape with no faces.

3. A regular polygon has
 - irregular angles and equal sides.
 - equal angles and irregular sides.
 - has equal angles and equal sides.
 - congruent angles and a variable.

4. An irregular polygon does not have equal angles or sides
 - ever.
 - sometimes.
 - only with prime numbers.
 - always.

5. A diagonal line in a shape runs from
 - a congruent shape to a radius.
 - one corner to another.
 - the circumference to the radius.
 - one side to another.

6. Congruent shapes are
 - composites.
 - irregular.
 - the same.
 - similar.

What's the Answer?



- 7 The radius of a circle is
- the length of the diameter.
 - a diagonal line.
 - is congruent.
 - half of its diameter.
- 8 The diameter is a straight line going through the center of a circle
- connecting two points on the circumference.
 - connecting an irregular polygon to a radius.
 - connecting the radius to a regular angle.
 - connecting three points near the circumference.
- 9 The circumference is
- the diameter of a circle.
 - a radius that touches the edge of a circle.
 - an irregular polygon with equal angles.
 - the distance around the edge of a circle.
- 10 A quadrant is
- a quarter of a circle.
 - half the radius of a circle.
 - a half circle.
 - a third of a circle.

Reading Comprehension Activity Page

Write the numbers/letters for sentence halves that match.



- | | |
|-------------------------------------------|---------------------------------------------------------------------------------------|
| ① A polygon is a plane shape | ① equal angles and sides. |
| ② A polyhedron is a solid with flat faces | ② unequal sides and angles. |
| ③ A regular polygon has | ③ are the same in shape. |
| ④ An irregular polygon has | ④ such as a pyramid. |
| ⑤ A diagonal line in a shape runs | ⑤ the center of a circle. |
| ⑥ Congruent shapes | ⑥ (two-dimensional) with straight sides, such as triangles, rectangles and pentagons. |
| ⑦ The radius is | ⑦ is the edge of a circle. |
| ⑧ The diameter runs through | ⑧ from one corner to another. |
| ⑨ The circumference | ⑨ a quarter of a circle. |
| ⑩ A quadrant is | ⑩ half the diameter of a circle. |

1 → _____ 2 → _____ 3 → _____ 4 → _____
5 → _____ 6 → _____ 7 → _____ 8 → _____
9 → _____ 10 → _____

Reading Comprehension Activity Page

ANSWER KEY



- | | | | |
|-------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| ① A polygon is a plane shape | ⑤ A diagonal line in a shape runs | Ⓐ equal angles and sides. | Ⓒ are the same in shape. |
| ② A polyhedron is a solid with flat faces | ⑥ Congruent shapes | Ⓑ unequal sides and angles. | Ⓓ such as a pyramid. |
| ③ A regular polygon has | ⑦ The radius is | Ⓒ are the same in shape. | Ⓔ the center of a circle. |
| ④ An irregular polygon has | ⑧ The diameter runs through | Ⓓ such as a pyramid. | Ⓕ (two-dimensional) with straight sides, such as triangles, rectangles and pentagons. |
| ⑤ A diagonal line in a shape runs | ⑨ The circumference | Ⓔ the center of a circle. | Ⓖ is the edge of a circle. |
| ⑥ Congruent shapes | ⑩ A quadrant is | Ⓕ (two-dimensional) with straight sides, such as triangles, rectangles and pentagons. | Ⓗ from one corner to another. |
| ⑦ The radius is | | Ⓖ is the edge of a circle. | Ⓘ a quarter of a circle. |
| ⑧ The diameter runs through | | Ⓗ from one corner to another. | ⓵ half the diameter of a circle. |
| ⑨ The circumference | | Ⓘ a quarter of a circle. | |
| ⑩ A quadrant is | | ⓵ half the diameter of a circle. | |

1 → <u> F </u>	2 → <u> D </u>	3 → <u> A </u>	4 → <u> B </u>
5 → <u> H </u>	6 → <u> C </u>	7 → <u> J </u>	8 → <u> E </u>
9 → <u> G </u>	10 → <u> I </u>		

Reading Comprehension Activity Page

Cut out the words and glue them under their definitions.



This is half the diameter of a circle.

This shape has equal sides and angles.

This is a line that runs through the center of a circle.

This is a solid shape.

This polygon has equal angles and sides.

These are shapes that are the same.

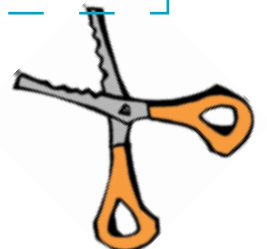
This polygon does not have equal angles and sides.

This is the edge of a circle.

This is a line in a shape that goes from one corner to another.

This is a quarter of a circle.

polygon	diagonal	radius	regular
congruent	irregular	quadrant	polyhedron
diameter	circumference		



Reading Comprehension Activity Page

ANSWER KEY



This is half the diameter of a circle.

radius

This shape has equal sides and angles.

polygon

This is a line that runs through the center of a circle.

diameter

This is a solid shape.

polyhedron

This polygon has equal angles and sides.

regular

These are shapes that are the same.

congruent

This polygon does not have equal angles and sides.

irregular

This is the edge of a circle.

circumference

This is a line in a shape that goes from one corner to another.

diagonal

This is a quarter of a circle.

quadrant

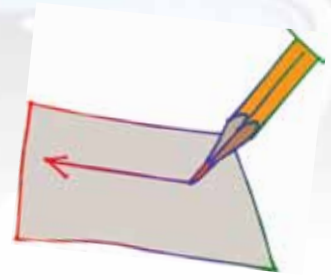


STUDENT SUPPORT MATERIALS

Writing

Writing Activity Page

Have the students complete the writing of the key math words.



po_____gon

poly_____dron

re_____lar

_____regular

diag_____al

congr_____t

rad_____s

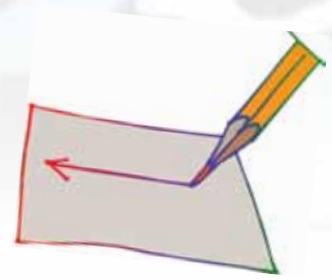
d_____meter

circum_____ence

quadr_____t

Writing Activity Page

Have the students complete the writing of the key math words.



po _____ n

p _____ n

re _____ r

ir _____ r

di _____ l

co _____ t

ra _____ s

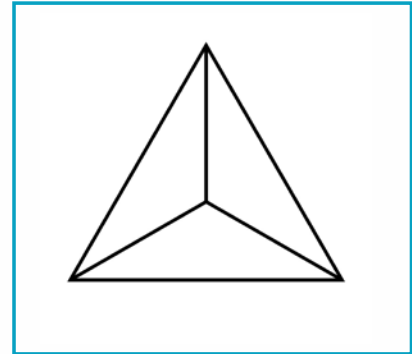
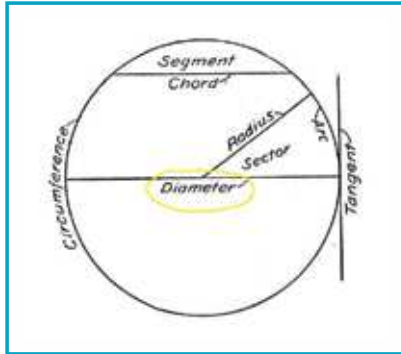
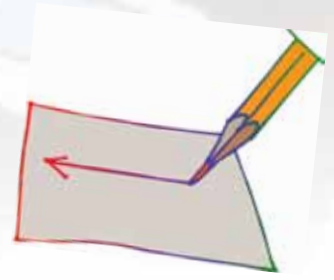
d _____ er

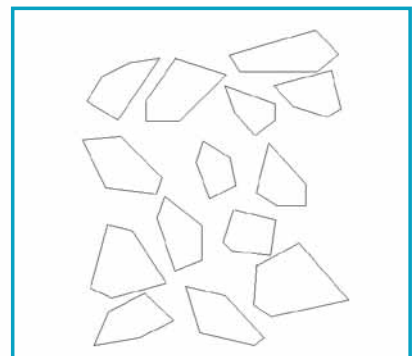
ci _____ ce

qu _____ t

Basic Writing Activity Page

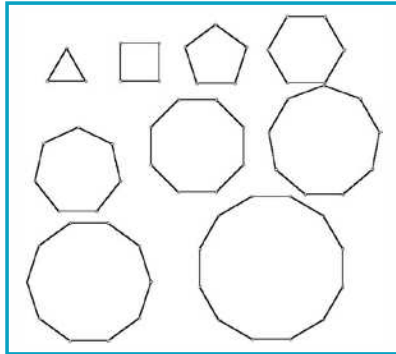
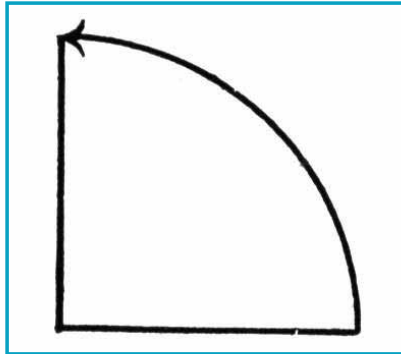
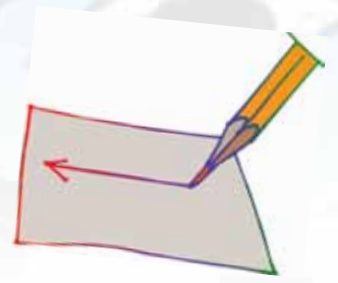
Have the students write the word for each picture.

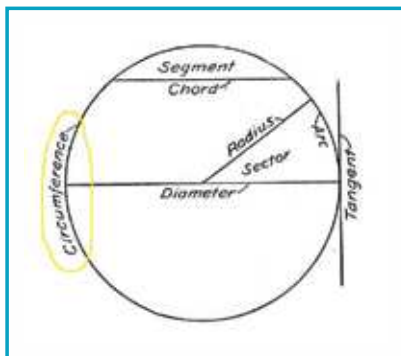




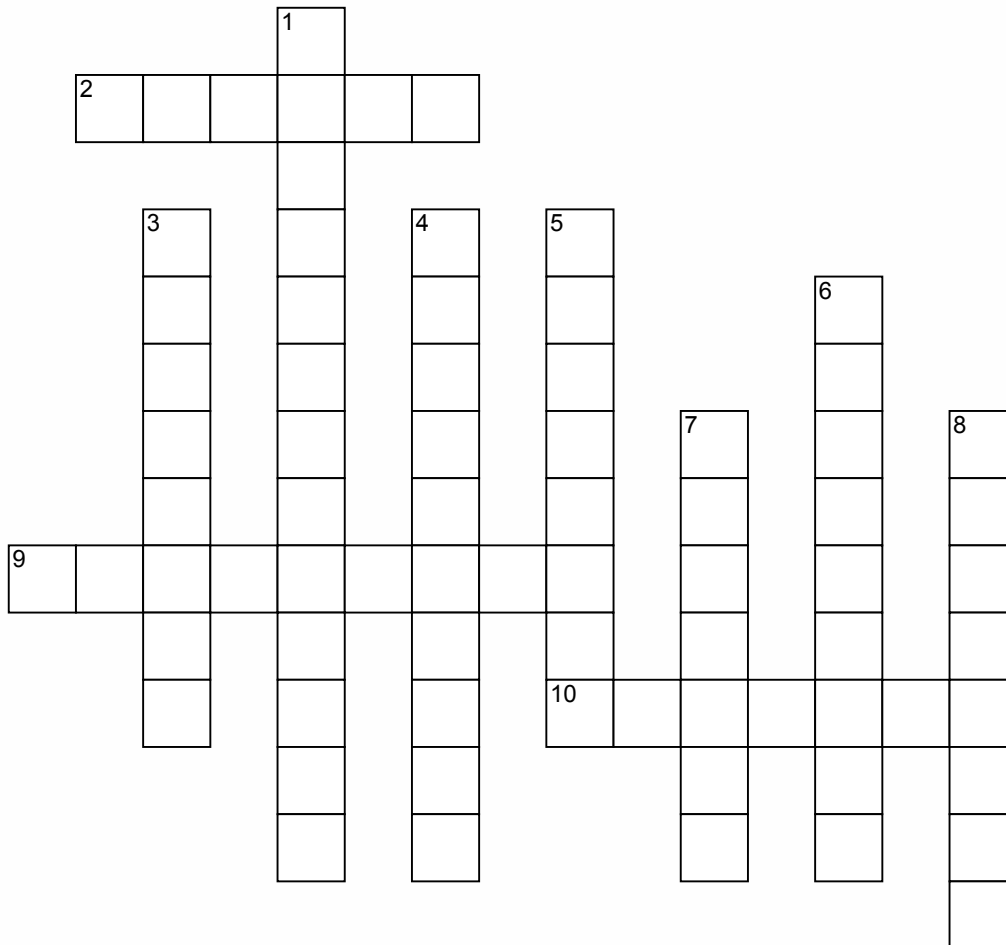
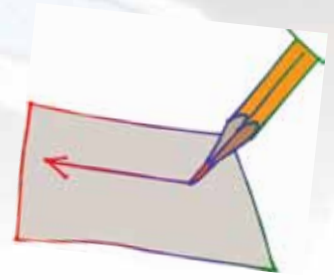
Basic Writing Activity Page

Have the students write the word for each picture.





Crossword Puzzle



www.CrosswordWeaver.com

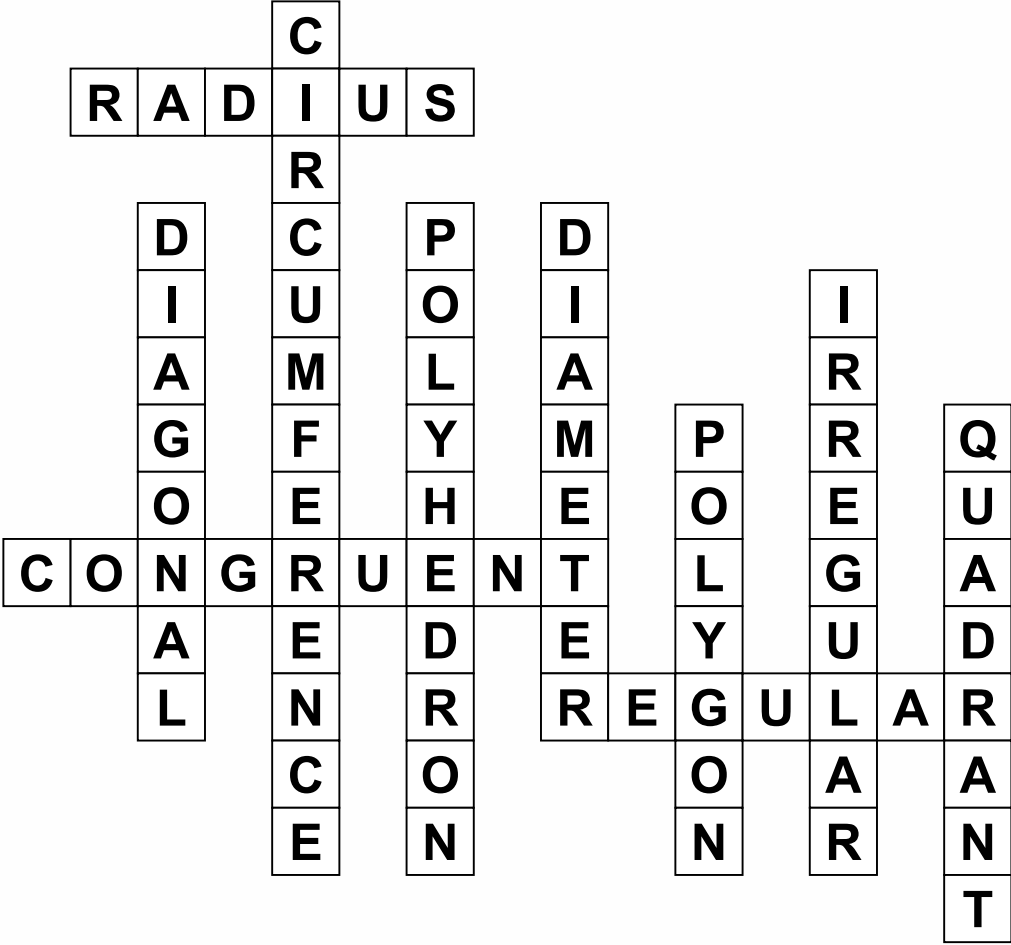
ACROSS

- 2 This is half the diameter of a circle.
- 9 These are shapes that are the same.
- 10 This polygon has equal angles and sides.

DOWN

- 1 This is the edge of a circle.
- 3 This is a line in a shape that goes from one corner to another.
- 4 This is a solid shape.
- 5 This is a line that runs through the center of a circle.
- 6 This polygon does not have equal angles and sides.
- 7 This shape has equal sides and angles.
- 8 This is a quarter of a circle.

Crossword Puzzle Answers







UNIT ASSESSMENT



Geometry

Unit Assessment Teacher's Notes
Grade 7 • Unit 6

Date: _____

Unit Assessment

Provide each student with a copy of the students' pages. Read the following instructions aloud. The students should answer the questions on their copies of the assessment.

BASIC LISTENING

Turn to page 1 in your test. Look at the pictures in the boxes.

1. Write the number 1 by the picture for **POLYGON**.
2. Write the number 2 by the picture for **POLYHEDRON**.
3. Write the number 3 by the picture for **REGULAR POLYGON**.
4. Write the number 4 by the picture for **IRREGULAR POLYGON**.
5. Write the number 5 by the picture for **DIAGONAL**.
6. Write the number 6 by the picture for **CONGRUENT**.
7. Write the number 7 by the picture for **RADIUS**.
8. Write the number 8 by the picture for **DIAMETER**.
9. Write the number 9 by the picture for **CIRCUMFERENCE**.
10. Write the number 10 by the picture for **QUADRANT**.

SIGHT RECOGNITION

Turn to pages 2 and 3 in your test. Look at the pictures in the boxes. Circle the word for each picture.

DECODING/ENCODING

Turn to pages 4 and 5 in your test. Look at the word parts in the boxes. Circle the other half or part of each word.



Unit Assessment

Provide each student with a copy of the students' pages. Read the following instructions aloud. The students should answer the questions on their copies of the assessment.

READING COMPREHENSION

Turn to page 6 in your test. Write each word under its definition.

Refer to Student Support Materials for answer key.

BASIC WRITING

Turn to page 7 in your test. Look at the pictures in the boxes. Write the word for each picture.



Teacher: To get a percentage for this student's assessment, divide the total number of questions correct by the total number of questions, then multiply this answer by 100 to determine the percentage of questions answered correctly.



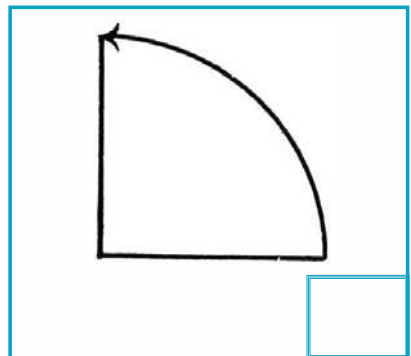
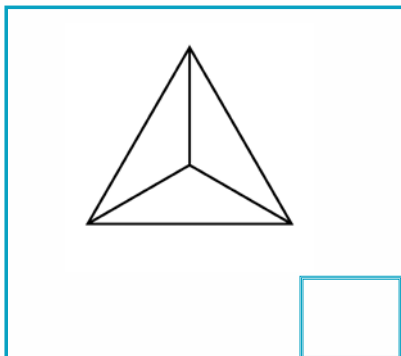
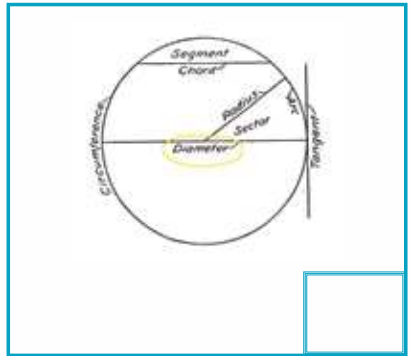
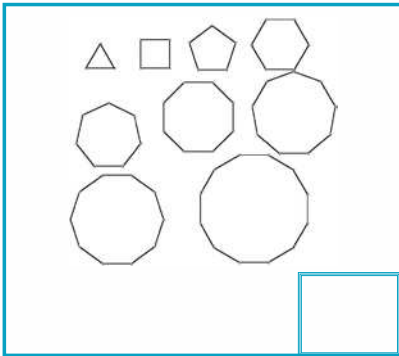
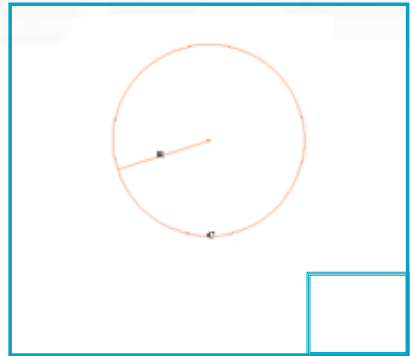
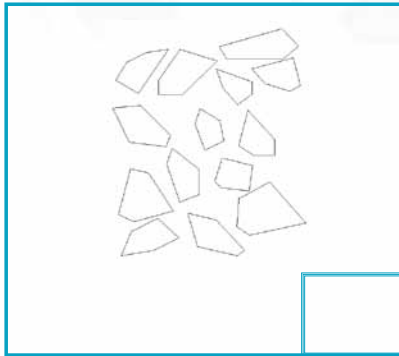
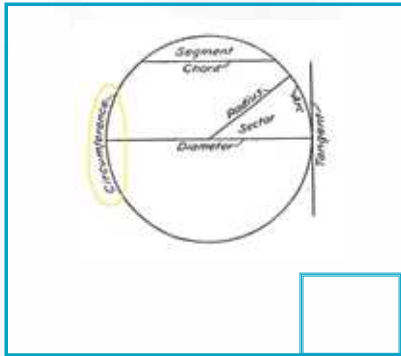


MATH PROGRAM

Unit Assessment Student Pages
Grade 7 • Unit 6

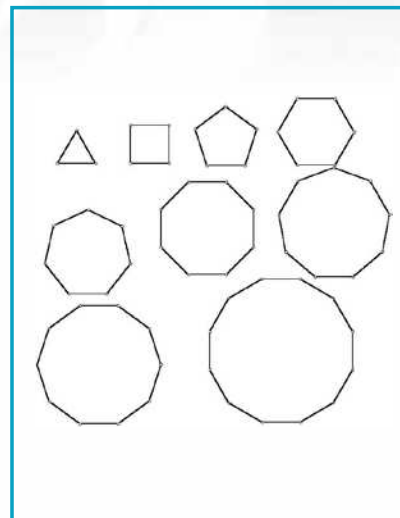
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Number Correct: _____ Percent Correct: _____

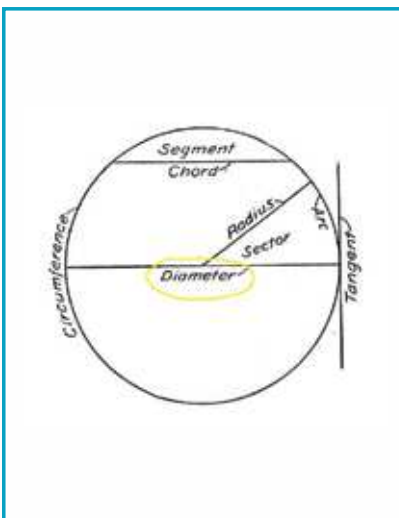




polygon
 polyhedron
 regular
 irregular
 diagonal
 congruent
 radius
 diameter
 circumference
 quadrant



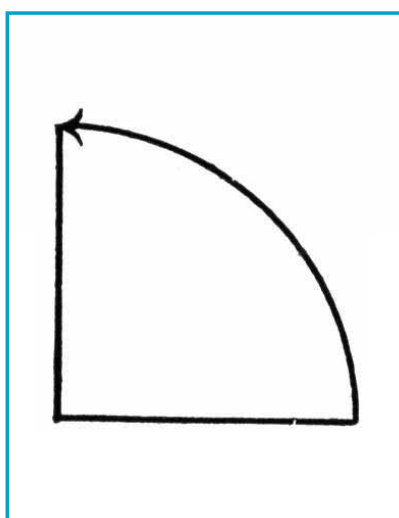
polygon
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 diagonal
 congruent
 radius
 diameter
 circumference
 quadrant



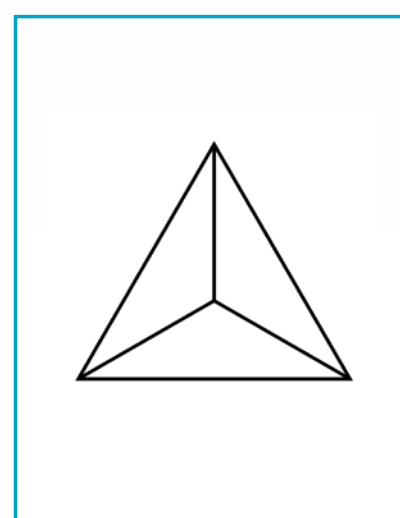
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 radius
 diameter
 circumference
 quadrant



polygon
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 radius
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 circumference
 quadrant



polygon
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 radius
 diameter
 circumference
 quadrant



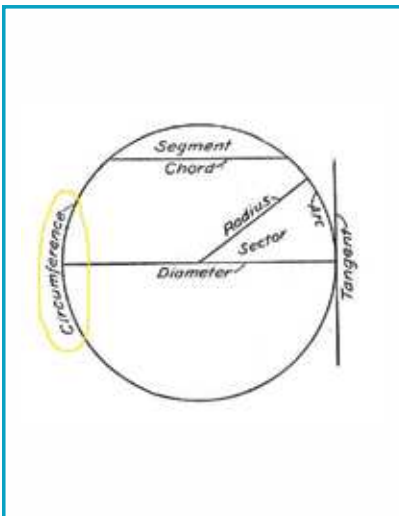
polygon
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 diagonal
 congruent
 radius
 diameter
 circumference
 quadrant



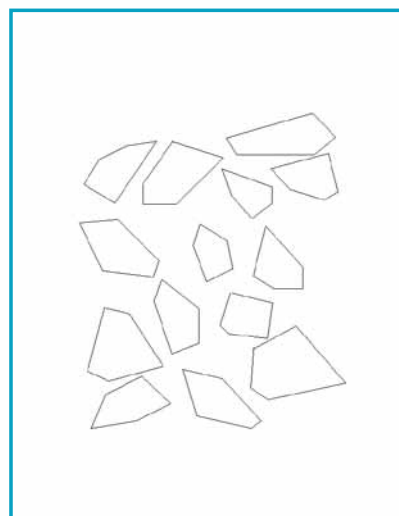
polygon
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 radius
 diameter
 circumference
 quadrant



polygon
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polygon
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This is half the diameter of a circle.

This shape has equal sides and angles.

This is a line that runs through the center of a circle.

This is a solid shape.

This polygon has equal angles and sides.

These are shapes that are the same.

This polygon does not have equal angles and sides.

This is the edge of a circle.

This is a line in a shape that goes from one corner to another.

This is a quarter of a circle.

irregular

diagonal

radius

regular

quadrant

polyhedron

congruent

circumference

polygon

diameter

