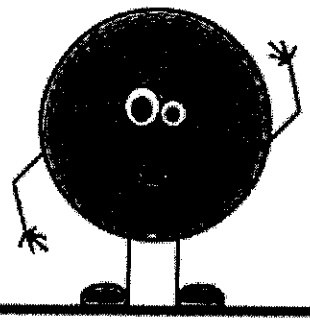
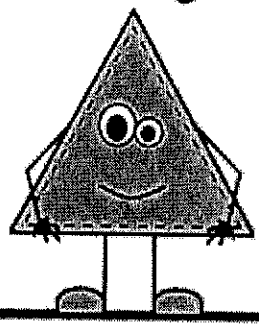
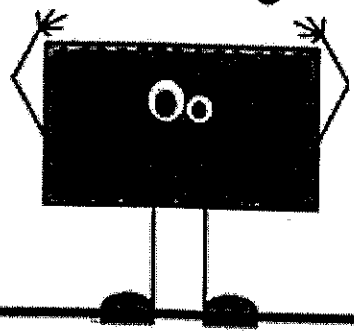
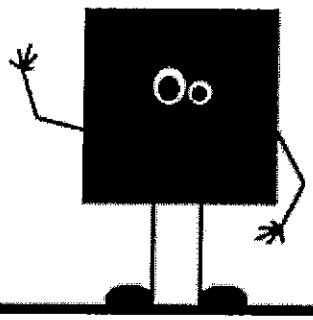
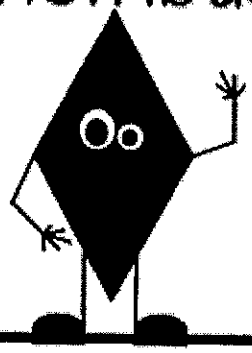
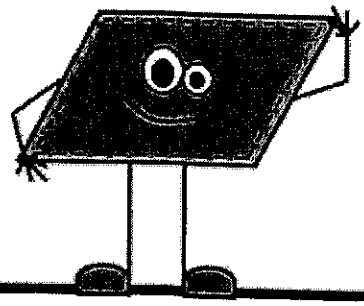
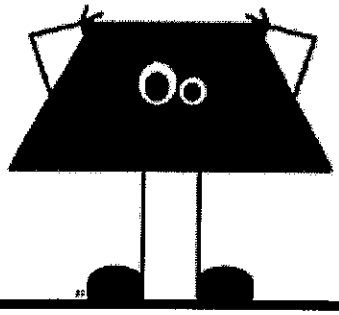
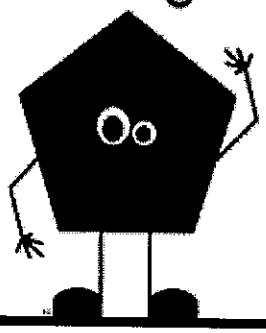
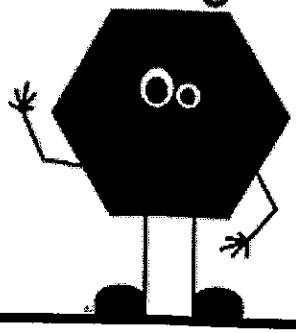
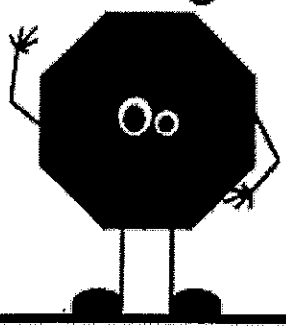
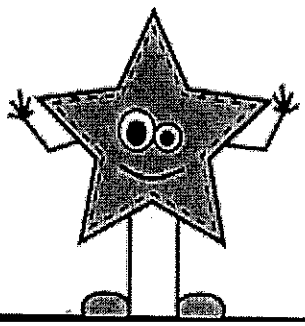
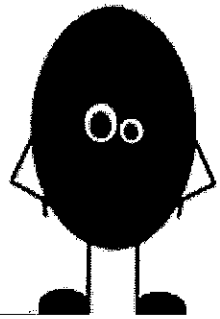
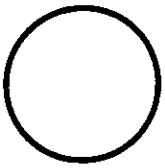
Meet the Shapes

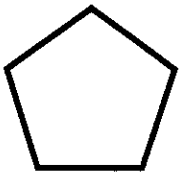
circle 	triangle 	rectangle 
square 	rhombus 	parallelogram 
trapezoid 	pentagon 	hexagon 
octagon 	star 	oval 

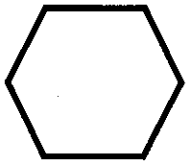
Naming Regular 2D Shapes

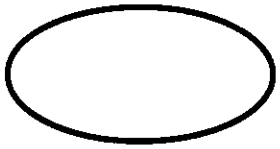
✱Draw lines to match the 2D shapes to their correct name.

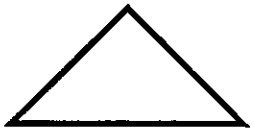
* Colour all the polygons blue.

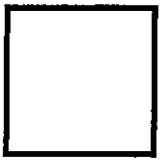












rectangle

oval

circle

triangle

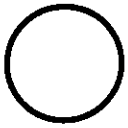
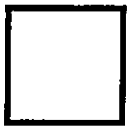
hexagon

square

pentagon

Properties of Regular 2D Shapes

Complete the table. Use the first page to help with spelling.

Shape	Name	No. of Sides	No. of Vertices (Corners)
		curved straight	
		curved straight	
		curved straight	
		curved straight	
		curved straight	
		curved straight	
		curved straight	

Quadrilaterals

Name: _____

1. What are quadrilaterals?

2. What is the difference between a square and a rectangle?

3. What is a parallelogram?

4. What is a rhombus?

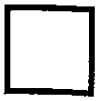
5. What is a trapezoid?

2D Shape Animal Challenge


Circle


Oval


Rectangle


Square


Triangle


Pentagon


Hexagon

Design Challenge: Draw or construct an animal using at least four different 2D shapes.

Which 2D shapes did you use?

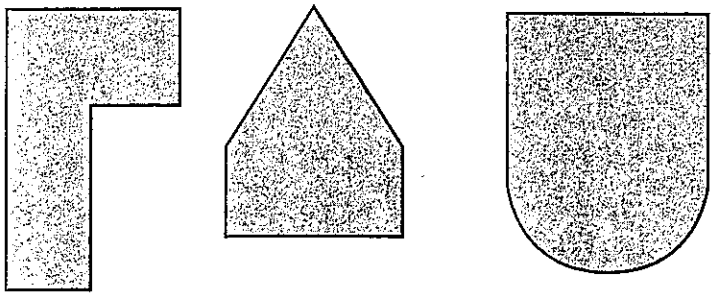
Chapter 11
Lesson 1

Sorting 2-D Shapes

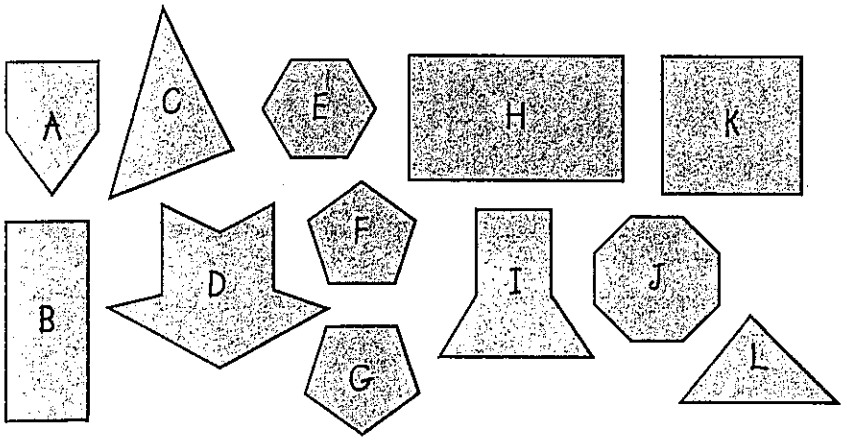
GOAL

Compare and sort 2-D shapes by number of sides.

1. Circle the shape that is not a polygon.



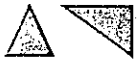
2. Petra drew 12 polygons and labelled them A to L.



At-Home Help

A **polygon** is a 2-D shape with all sides made from straight lines.

A **triangle** is a polygon with 3 straight sides.



A **quadrilateral** is a polygon with 4 straight sides.

A **pentagon** is a polygon with 5 straight sides.

A **hexagon** is a polygon with 6 straight sides.

An **octagon** is a polygon with 8 straight sides.

a) Which of Petra's polygons are quadrilaterals? _____

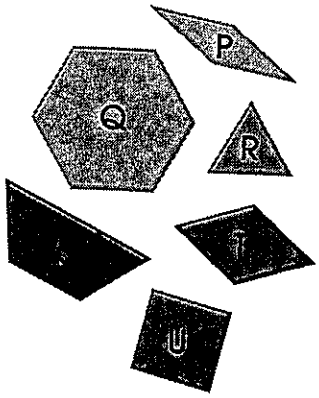
b) Which of Petra's polygons are triangles? _____

c) Which of Petra's polygons are octagons? _____

d) Which of Petra's polygons are pentagons? _____

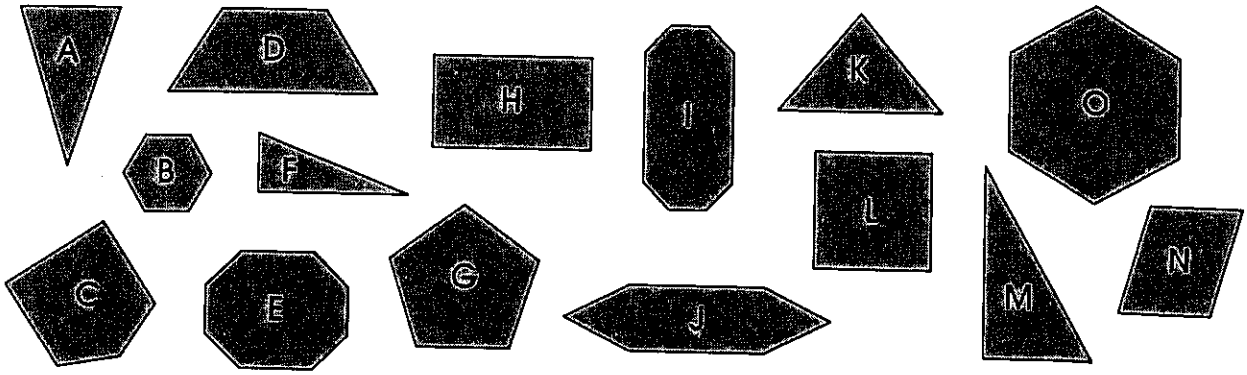
3. Sort these pattern blocks by the number of sides.

3 sides	4 sides	6 sides



4. a) Chang is making a puzzle using polygons that have 5 sides or less. Which of the shapes below could he use?
*hint: there are 10 shapes

_____



b) David is making a wall display using quadrilaterals and octagons. Which of the shapes above could he use?

_____

c) Alice is making a picture using only hexagons. Which of the shapes above could she use?

_____

5. Do all polygons with the same number of sides look the same? Use examples to explain.

_____

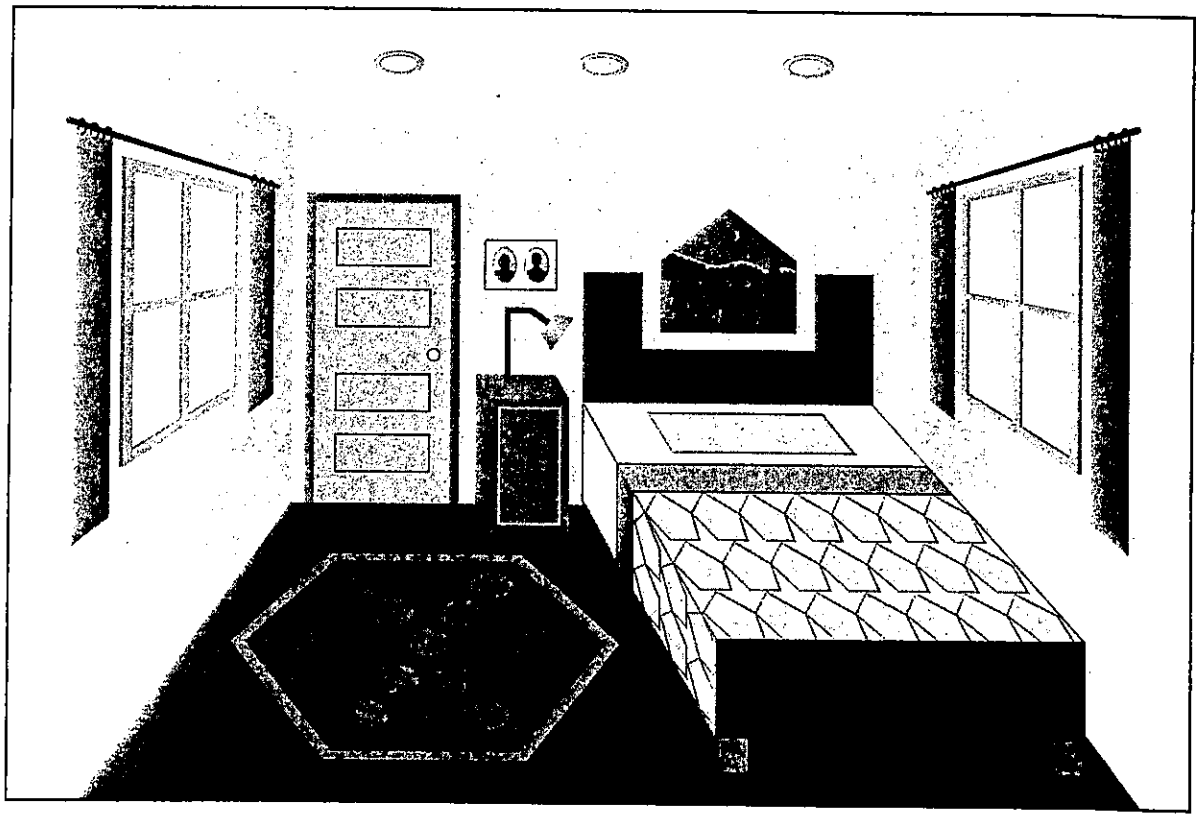
_____

Chapter 11
Lesson 2

Identifying Polygons

GOAL

Identify polygons in the environment.



1. Suzy is looking for polygons in her bedroom.
Where can she find each type of polygon?

a) triangle _____

b) hexagon _____

c) octagon _____

d) pentagon _____

2. List 4 places where Suzy can find quadrilaterals in her bedroom.

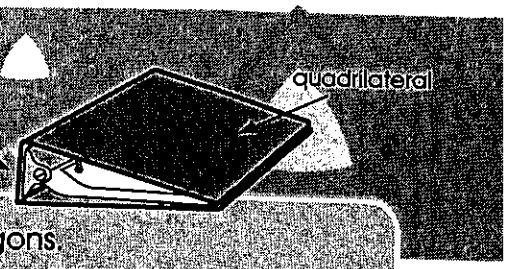
_____

Unit 11

Lesson 2 Identifying Polygons

GOAL Identify polygons in the world.

Polygon Hunt



Look around your classroom for objects containing polygons. Identify the real-world objects you found. Then, for each object, name and draw a picture of a polygon that is found within the object.

Example:

Real-World Object	Name and Picture of Polygon	Attributes
A computer screen	quadrilateral 	This has four straight sides and four corners.

Real-World Object	Name and Picture of Polygon	Attributes

Chapter 11 Lesson 3

Making Polygon Patterns

GOAL

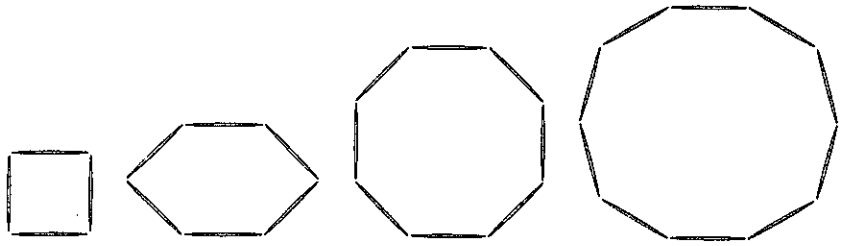
Identify, describe, and extend polygon patterns.

You will need toothpicks or straws.

At-Home Help

A **pattern rule** is a description of how a pattern starts and how it continues.
For example, "Start with 3 sides and add 1 side each time."

1. Maria used toothpicks to make a pattern of polygons.



Write a pattern rule to describe the number of sides in Maria's pattern.

Start with 4 sides and _____.

2. Make a polygon pattern using Luisa's rule for the number of sides:

Start at 4 and add 1 each time.

Use toothpicks or straws. Show 4 polygons in your pattern.
Sketch your pattern.

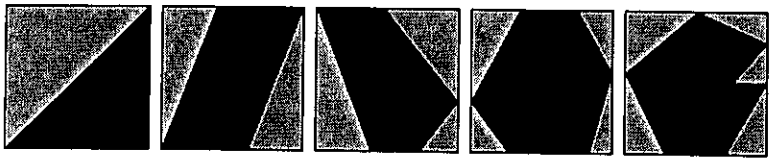
Unit 11

Lesson 3 Making Polygon Patterns

GOAL Identify, describe, and extend polygon patterns.

You will need
- toothpicks or straws
- pencil crayons

1. Sam painted a black polygon on each square tile to make a pattern.



a) Write a pattern rule to describe the black polygons in the pattern. Use the number of sides.

Start with 3 sides and _____

b) Write a pattern rule to describe the number of grey triangles in the squares.

_____

2. Make a polygon pattern using Bradley's rule for the number of sides:

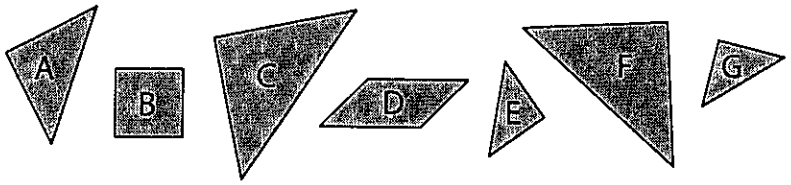
Start at 3 and add 2 each time.

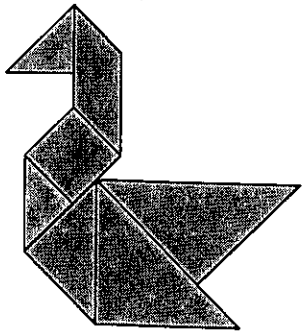
Use toothpicks or straws. Show 4 shapes in your pattern. Sketch your pattern.

Chapter 11 Mid-Chapter Review

Lesson 1

1. Luke used 7 tangram shapes to make a swan.





a) Which of the shapes in the tangram set are triangles?

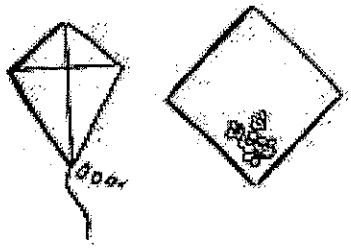
_____

b) What is the same about the other 2 shapes in the set?

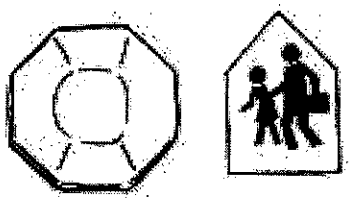
_____

Lesson 2

2. Explain how the shapes were sorted into group 1 and group 2.



group 1



group 2

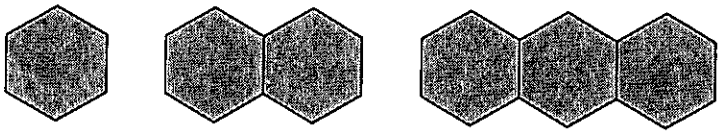
_____

_____

_____

Lesson 3

3. This pattern is made with hexagon pattern blocks.

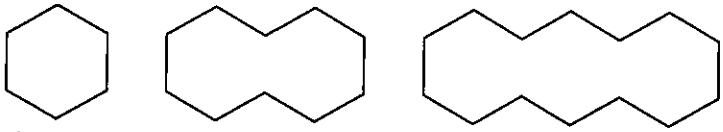


shape 1 shape 2 shape 3

a) Complete the pattern rule for the hexagon pattern:

Start with 1 hexagon and _____.

b) Sarah noticed that the number of sides of the joined shapes increases each time.

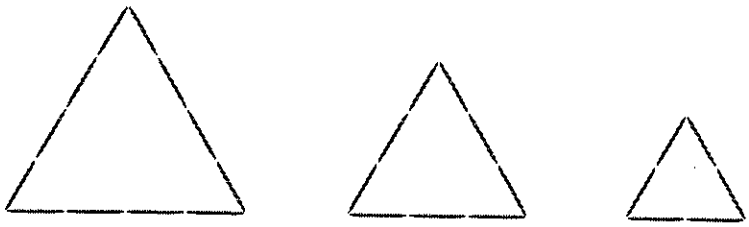


polygon 1 polygon 2 polygon 3

Write a pattern rule for the number of sides in the polygon pattern.

_____

4. a) How many toothpicks will Jack need to make shape 4 in his pattern? _____



shape 1 shape 2 shape 3

b) Make an increasing pattern using Jack's triangles. Sketch your pattern.