

**2D Shapes:  
Sides and  
Vertices**



**ALSO INCLUDES GOOGLE SLIDES**





*These worksheets are perfect for students who:*

- Has an intellectual disability*
- is an early or non-reader*
- lacks prerequisite skills*
- benefits from picture support*
- takes alternative assessments*



# 2D Shapes: Sides and Vertices Unit for Special Education

By  
Christa Joy  
Special Needs for Special Kids



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Also included in this resource as separate files:

- Lesson plans
- Links and directions to digital activities
- PowerPoint (**this is the book in the lesson plan**)
- Voice recorded PowerPoint
- Activities in black and white

*This unit contains printable and digital activities. There is a lot of repetition and opportunities for students to practice. The problems are also spaced out to decrease distractions.*

*These activities are in 2 separate files, one in color and one in black and white.*

11 days

## Day 5

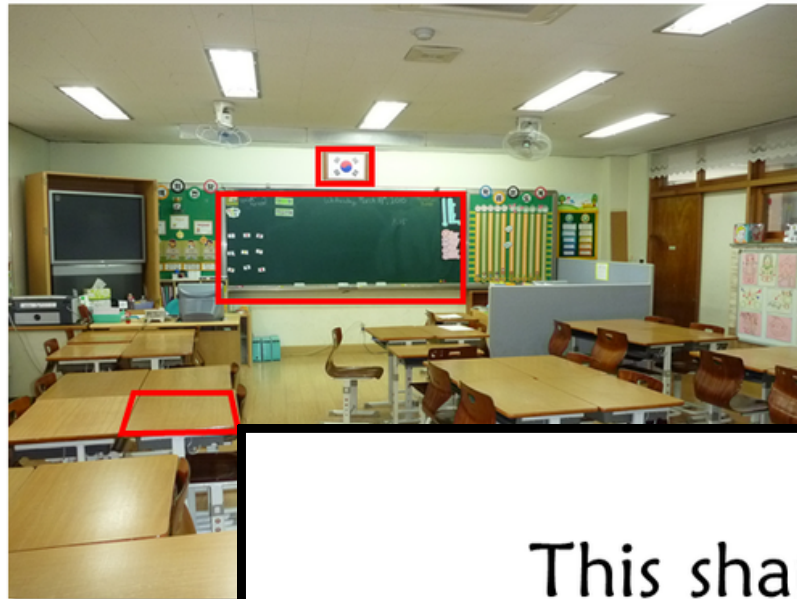
Activity	Notes	Materials
Read or listen to the movie version of <b>What Makes a Shape?</b> (10 minutes)	<ul style="list-style-type: none"><li>• Read through book to start each lesson while students are getting settled</li><li>• Make connections between book and previous knowledge</li><li>• Make connections to vocabulary board</li></ul>	<ul style="list-style-type: none"><li>• Book</li><li>• Vocabulary board</li></ul>
Group Activity (15 minutes)	<ul style="list-style-type: none"><li>• Students will practice sorting shapes</li><li>• See activity for complete directions and suggestions</li></ul>	<ul style="list-style-type: none"><li>• Sorting labels</li><li>• Shapes to sort</li></ul>
Shape worksheets (10 minutes)	<ul style="list-style-type: none"><li>• Complete the worksheet: Count the number of sides<ul style="list-style-type: none"><li>○ There are 2 of these worksheets, do just one or both depending on the learning level of your students</li><li>○ Students will place a sticker or mark on the sides of each shape</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Worksheets</li><li>• pencils</li></ul>
Sharing (10 minutes)	<ul style="list-style-type: none"><li>• Each student shares their finished worksheet with the group using the communication method of their choice</li></ul>	<ul style="list-style-type: none"><li>• Completed worksheets</li><li>• Communication devices</li></ul>

The lesson plans contain:

- Overall tips for teaching students with significant needs
- A quick look at what you will do each day
- Detailed instructions on how that day's lesson should run



We see shapes at school.



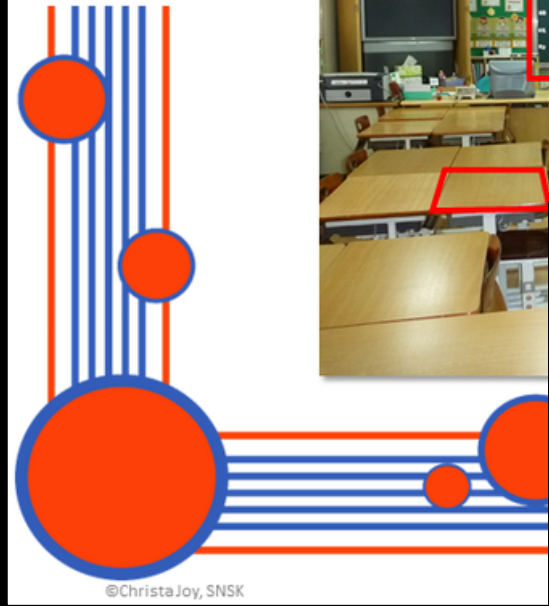
This shape has 4 vertices.



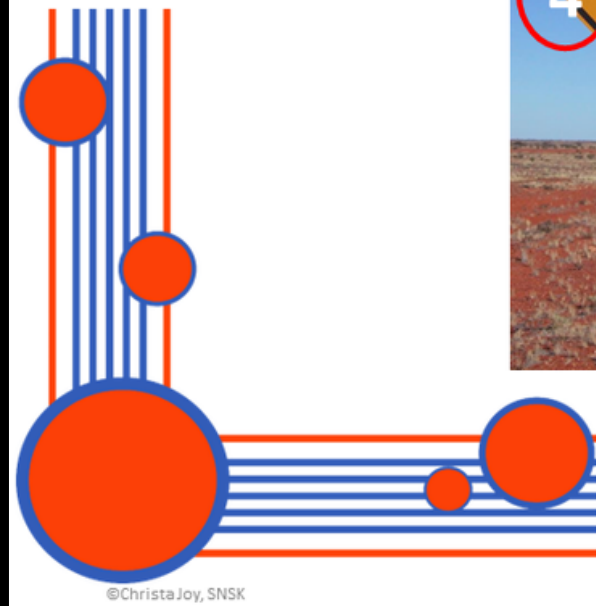
There is a 28-page book with simple text and engaging photos.

The book also comes in:

- PowerPoint
- a movie version (mp4)



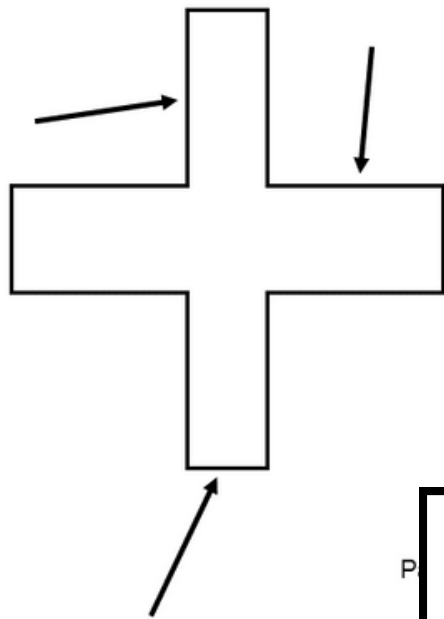
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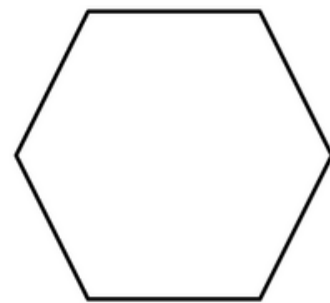


All shapes have sides or outer edges.



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How many sides does this shape have?



\_\_\_\_\_ sides

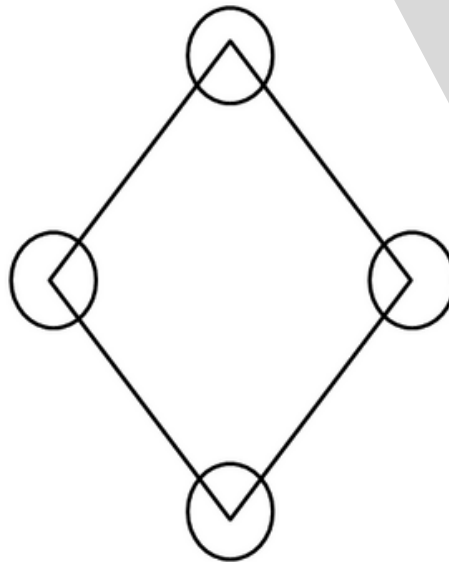
Another thing shapes have in common are vertices.



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Page 7

vertices are where 2 sides meet.



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Page 8

There is also a black and white student booklet that covers the same information in the book.

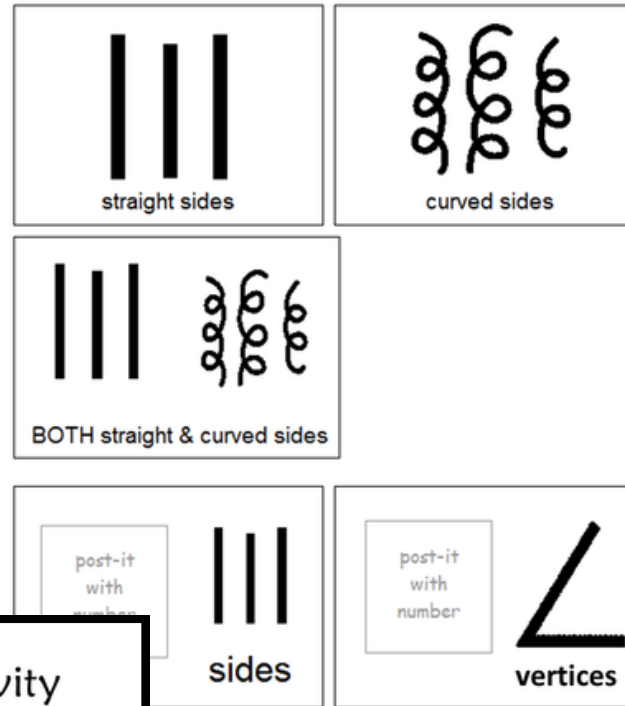
- Reviews information
- Answer questions
- Color when done



# Group Activity

- Preparation
  - Print the shapes onto cardstock and laminate for durability (color and BW versions provided)
  - Make one set for each student
- Suggestions
  - Have them sort the shapes into groups by # of sides
  - Have them sort the shapes into groups by # of vertices
  - Sort them into groups with straight sides, curved sides or both
  - If laminated, have students trace with dry erase markers the sides
  - If laminated, have students circle with dry erase markers the vertices
  - Place stickers or other small objects on sides or vertices

## Group Sorting Labels

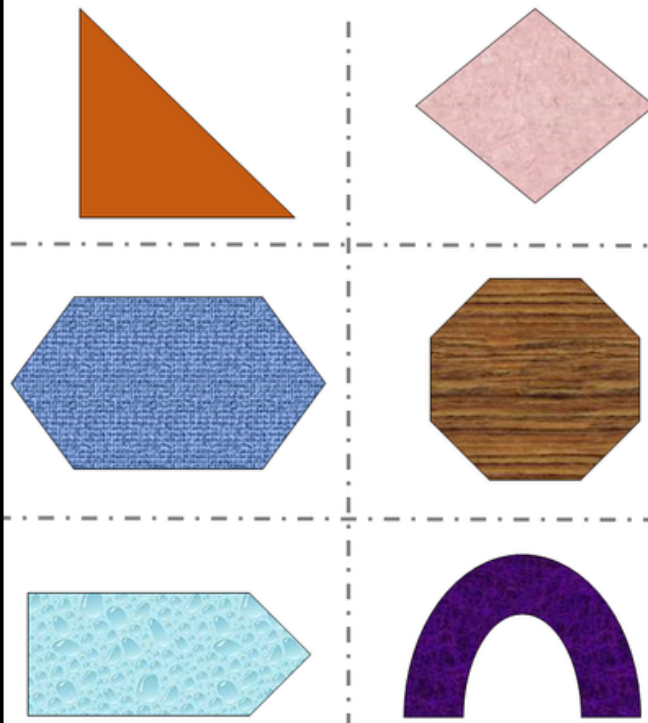


## Group activity 1

There are group activities that include 18 shape cards and labels.

- Color
- Black and white

## Shape cards for group activity





## Group activity 2

### Who am I game

- Give each student a set of Who am I cards
  - Use the flash cards from the group activity in week 1
  - Use the calling cards from Bingo game
- Various options/ways to play, but the goal is to have students hold up the card you are talking about. Sometimes there can be more than one correct answer
- Things you can do:
  - Hold up a who am I card
  - Show a page from the book
  - Point to a symbol on the vocabulary board
  - Verbally describe something about that shape.
    - How many sides?
    - How many vertices?
    - Straight or curved sides?
    - Common object that has the same shape.

- *Who am I activity using flashcards.*
- *Variations/ ways to play included*

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## Bingo cards



- Included are 10 Bingo cards in color and 10 Bingo cards in BW.
- Place the cards in page protectors or laminate for long term use.
- **Calling cards are included.**
- This is a great way to practice the new vocabulary included in this unit.
- Cut apart a set of the vocabulary cards to use as the calling cards.
- Options:
  - Show students the picture for them to match
  - Read the definition and see if students can find the picture
  - Work as teams
  - Vary the "winning" patterns.
    - Cover all
    - Cover corners
    - Row across or down
    - Cover the edges
  - Vary the ways to mark the card
    - Place in page protector or laminate
    - Stickers
    - Post-it notes
    - Dot markers

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## Shapes

		<b>FREE</b>	

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## Group activity 3

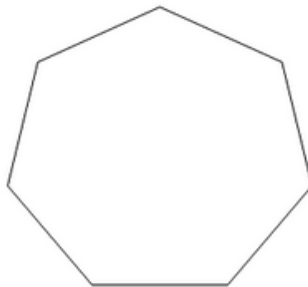
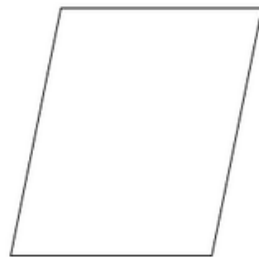
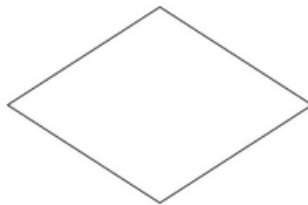
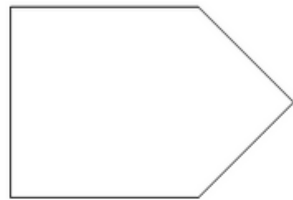
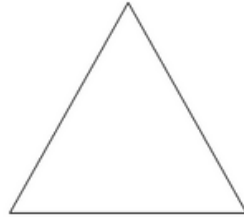
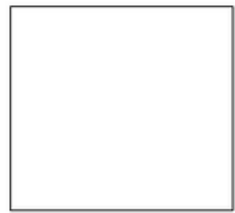
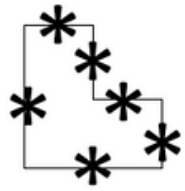
There are 10 color and 10 black and white Bingo cards included plus 10 different ways to use them and play Bingo. There are calling cards included.

Calling cards included

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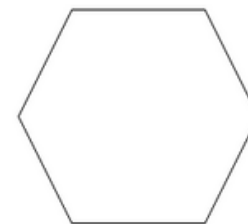
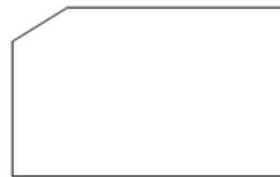
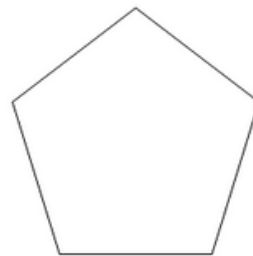
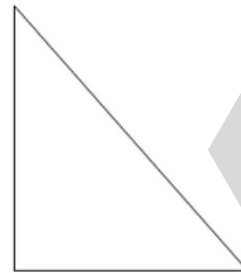
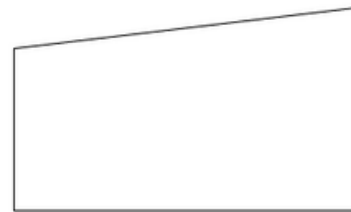
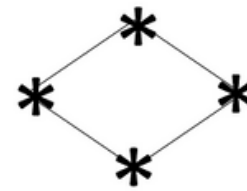


Identify the sides of each shape by placing a sticker or draw a star on each side.



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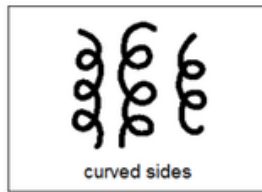
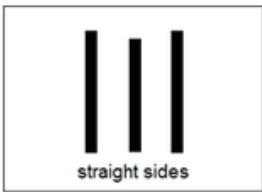
Identify the vertices of each shape by placing a sticker or draw a star on each vertex.



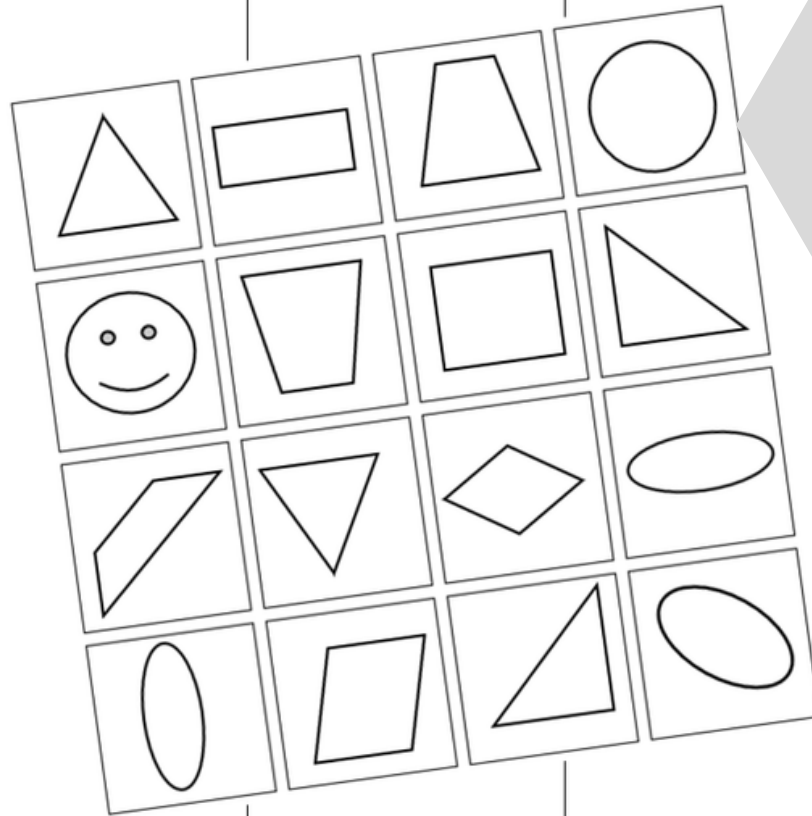
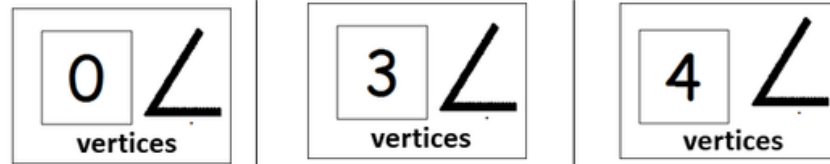
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There are 2 worksheets for students to practice identifying the sides or vertices of various shapes.





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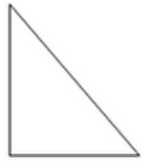
# Sorting activities

There are 4 worksheets for students to sort sides or vertices.

Count the number of sides of each shape and write it in the box.



\_\_\_\_\_ sides



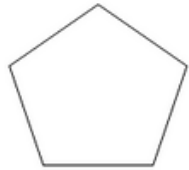
\_\_\_\_\_ sides



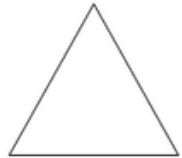
\_\_\_\_\_ sides



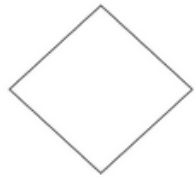
\_\_\_\_\_ sides



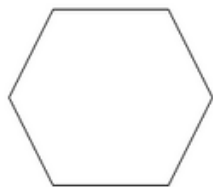
\_\_\_\_\_ sides



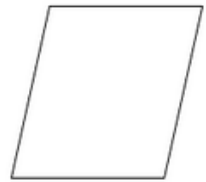
\_\_\_\_\_ sides



\_\_\_\_\_ sides



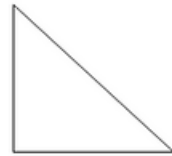
\_\_\_\_\_ sides



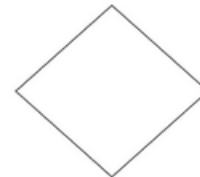
\_\_\_\_\_ sides

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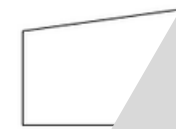
Count the number of vertices of each shape and write it in the box.



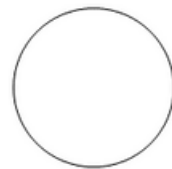
\_\_\_\_\_ vertices



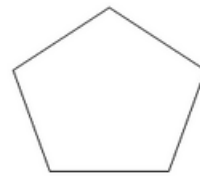
\_\_\_\_\_ vertices



\_\_\_\_\_ vertices



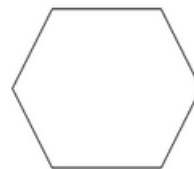
\_\_\_\_\_ vertices



\_\_\_\_\_ vertices



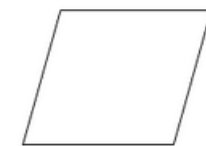
\_\_\_\_\_ vertices



\_\_\_\_\_ vertices



\_\_\_\_\_ vertices



\_\_\_\_\_ vertices

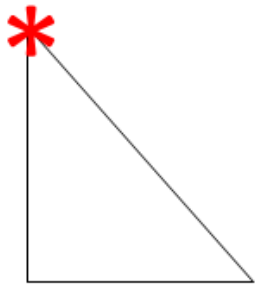
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## Counting activities

There are 4 worksheets for students to practice counting the sides or vertices of various shapes.

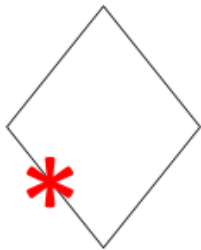


Is it a vertex or a side? Look where the \* is on each shape and decide if it is on the side or vertex of the shape.



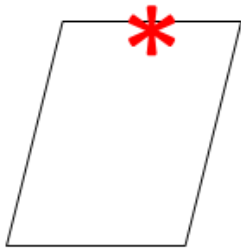
side

vertex



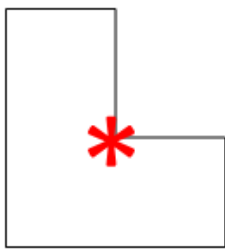
side

vertex



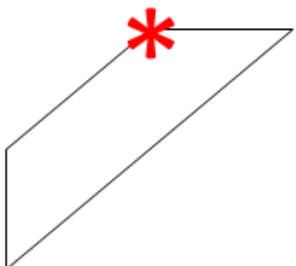
side

vertex



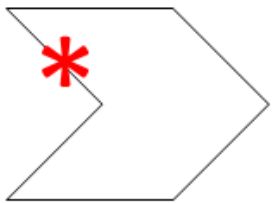
side

vertex



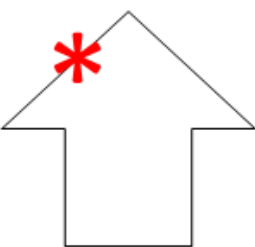
side

vertex



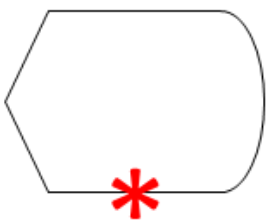
side

vertex




side

vertex



side

vertex



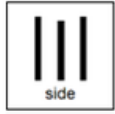
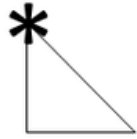
side

vertex

There are 2 worksheets for students to practice again, in a slightly different presentation, if it is a side or vertex.

## Sides and Vertices Quiz

1. Where is the \* on this shape?



side

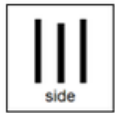


vertex

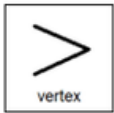


I don't know

2. Where is the \* on this shape?



side

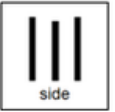


vertex

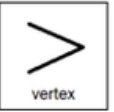


I don't know

3. Where is the \* on this shape?



side

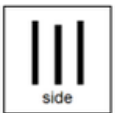


vertex

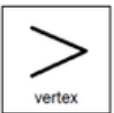


I don't know

4. How many sides does this shape have?



side



vertex



I don't know

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## Sides and Vertices Quiz

5. How many sides does this shape have?



4

5

6

6. How many sides does this shape have?

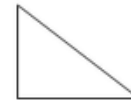


2

6

8

7. How many vertices does this shape have?



3

4

5

8. How many vertices does this shape have?



4

6

7

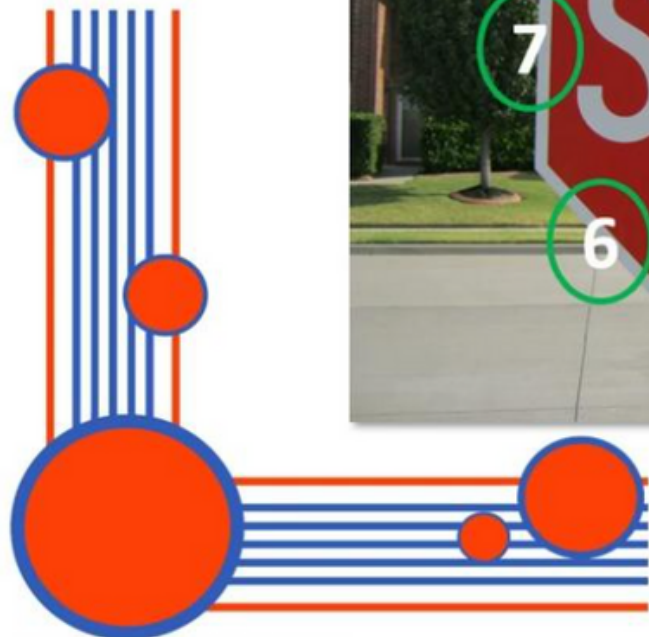
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There is a quiz to determine if more reteaching is needed.



Watch the movie on Shapes: sides and vertices.

This shape has 8 sides.



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The book is embedded as a movie in the digital activities.

Great for review

Place a star on each **side**. Then count the total number of sides for each shape in the circle.

4 5

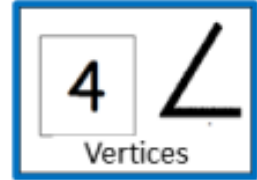
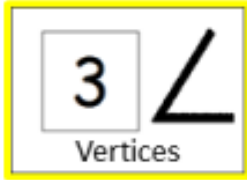
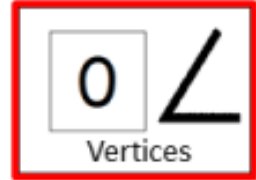
3 7

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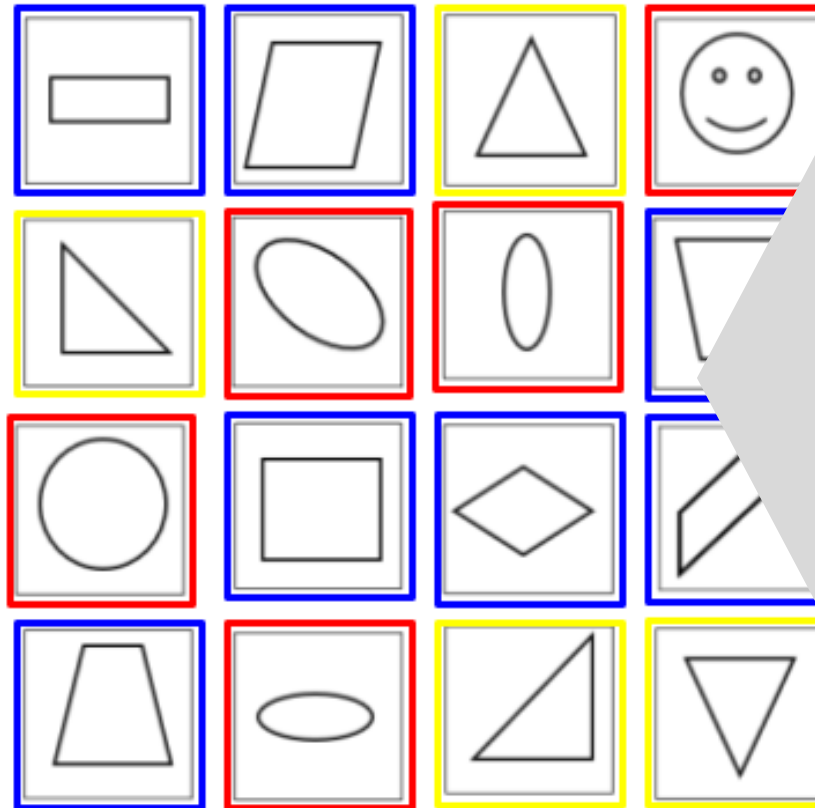
There are digital versions of the activities included. Students click and drag the answers.



Perfect for every learning level

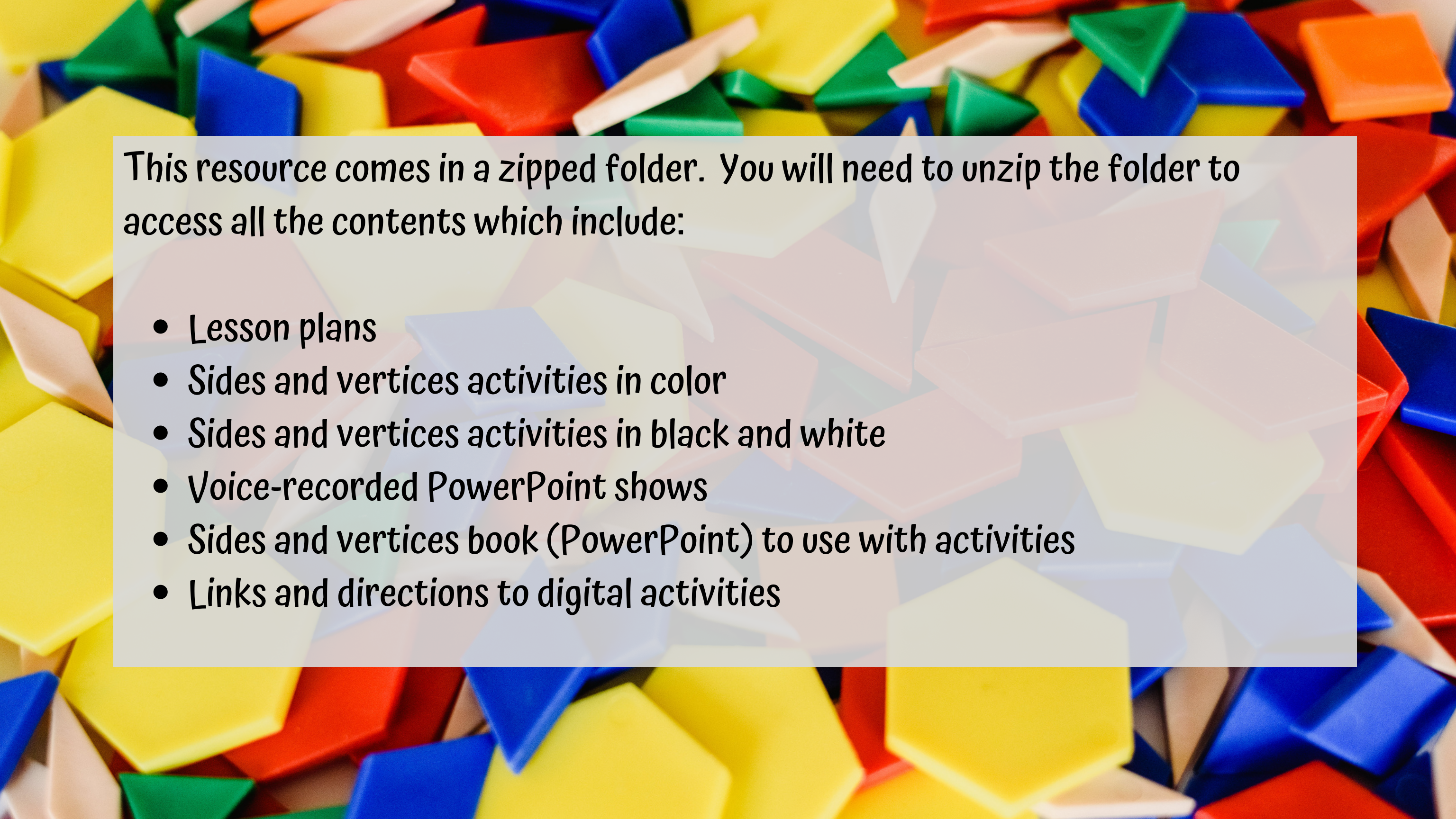


Sort the shapes into the correct column. If you are not sure or it has both, place it on the middle line.



There are 2 sets, one that includes differentiation shown here.





*This resource comes in a zipped folder. You will need to unzip the folder to access all the contents which include:*

- *Lesson plans*
- *Sides and vertices activities in color*
- *Sides and vertices activities in black and white*
- *Voice-recorded PowerPoint shows*
- *Sides and vertices book (PowerPoint) to use with activities*
- *Links and directions to digital activities*