

# Name Squares, Triangles, Circles, Rectangles in Different Orientations, Sizes.

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### Differentiate and Assess

Not every student will be ready to investigate this concept at this Level and so we will need to differentiate to ensure every student is learning at their leading edge. Select the Differentiate button on this screen.

### Integrate

Every mathematical concept is integrally related to other mathematical concepts. Teaching and learning related concepts simultaneously develops deep relational understanding. Select the Integrate button on this screen.

### Intervene

Some students may not yet be ready to investigate this concept at any Level, and so we will need to provide some intervention. Select the Intervention button on this screen.

# NAME SQUARES, TRIANGLES, CIRCLES, RECTANGLES, DIFFERENT ORIENTATIONS, SIZES.

## EXPLICIT TEACHING PLAN OVERVIEW PAGE

THIS PAGE IS A SUMMARY OF THE EXPLICIT TEACHING PLAN, INCLUDING STRATEGIC QUESTIONS, AND DESCRIBING THE SEQUENCE WHICH WILL OCCUR OVER MULTIPLE LESSONS.

RESOURCES: PAPERSQUARES, CIRCLES, RECTANGLES, AND TRIANGLES, PENCIL, PAPER

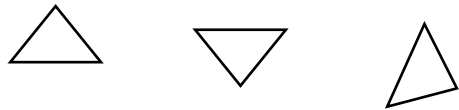
### WHAT COULD WE DO?

Children:

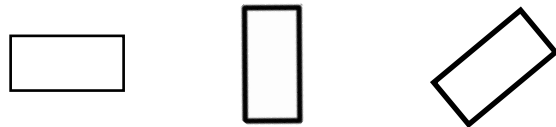
- name squares in different orientations and sizes, for example,



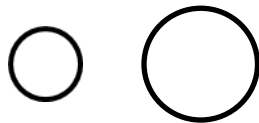
- name triangles in different orientations and sizes, for example,



- name rectangles in different orientations and sizes, for example,



- name circles in different orientations and sizes, for example,



### WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

Children:

- ask questions about squares, triangles, circles and rectangles in different orientations and sizes, for example,
  - What shape is this?
  - If I turn it, what shape is it now?
  - If it is larger, what shape is it?
  - Does a shape's name change if we turn it?
  - Does a shape's name change if its size changes?

# NAME SQUARES, TRIANGLES, CIRCLES, RECTANGLES, DIFFERENT ORIENTATIONS, SIZES.

## EXPLICIT TEACHING PLAN

FULL EXPLICIT TEACHING PLAN, EMBEDDING DEEP RELATIONAL UNDERSTANDING, METALANGUAGE, AND QUESTIONS THAT MAY BE USED OVER MULTIPLE LESSONS.

### WHAT COULD WE DO?

Children think about, talk and listen to a friend about, then have the opportunity to share what they already know.

Display a square piece of paper, for example,



Children use their own informal language to describe shapes as they learn to name and identify different shapes in different orientations.

Turn the square diagonally, for example,



Children may suggest the shape is now a diamond. A diamond is not the name of a geometric shape!

### WHAT LANGUAGE COULD WE USE TO EXPLAIN AND ASK QUESTIONS?

- ▶ Today we're going to investigate shapes.
- ▶ What do you already know about shapes?
- ▶ Talk to a friend about shapes.
- ▶ Is anybody ready to share what they are thinking about shapes?

- ▶ Today we're going to investigate shapes.
- ▶ What shape is this piece of paper?
- ▶ Is this shape, a square?

- ▶ I'm going to turn the square, like this.
- ▶ What shape is this now?
- ▶ Is it still a square?
- ▶ Do shapes change their name if they turn around?
- ▶ Do you change your name if you turn around?

Children stand up.

Children repeatedly turn and say their name.

Place the square in different orientations.

Display squares of different sizes, for example,



Draw a square as you describe the lines.

- ▶ Everyone stand up.
- ▶ Say your name!
- ▶ Now turn and face the window.
- ▶ Say your name!
- ▶ Now turn and face the back wall.
- ▶ Say your name!
- ▶ Now turn and face the door.
- ▶ Say your name!
- ▶ Everyone sit down.
  
- ▶ When you turned around, did your name change?
- ▶ Does your name stay the same if you turn around?
- ▶ Does the square's name change if we turn it around?
- ▶ Is it still called a square?
- ▶ Is this a square?
- ▶ Is this a square?
- ▶ Are all of these squares?
- ▶ Does it matter what size the square is?
- ▶ Is it still a square?
  
- ▶ Let's investigate how we could draw a square.
- ▶ Could we draw a straight line going this way?
- ▶ And a straight line going this way?
- ▶ And a straight line going this way?

Label the shape 'square'.

Display a triangular piece of paper, for example,



Children use their own informal language to describe shapes as they learn to name and identify different shapes in different orientations.

Turn the triangle, for example,



Children may suggest the shape is now an upside-down triangle. A triangle is a generic name for all three-sided shapes.

Display different sized triangles, for example,



Draw a triangle as you describe the lines.

Label the shape 'triangle'.

- ▶ And a straight line going this way?
- ▶ Is this a square?
  
- ▶ What shape is this piece of paper?
- ▶ Is this shape, a triangle?
  
- ▶ I'm going to turn the triangle, like this.
- ▶ What shape is this now?
- ▶ Is it still a triangle?
- ▶ Do shapes change their name if they turn around?
- ▶ Do you change your name if you turn around?
  
- ▶ Are all of these triangles the same size?
- ▶ Are all of these shapes triangles?
- ▶ Does it matter what size the triangle is?
- ▶ Is it still a triangle?
- ▶ Let's investigate how we could draw a triangle.
- ▶ Could we draw a straight line going this way?
- ▶ And a straight line going this way?
- ▶ And a straight line going this way?
- ▶ Is this a triangle?

Display a rectangular piece of paper, for example,



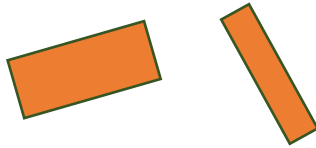
Children use their own informal language to describe shapes as they learn to name and identify different shapes in different orientations.

Turn the rectangle, for example,



Children may suggest it is a rectangle standing up.

Display different sized rectangles, for example,



Draw a rectangle as you describe the lines.

Label the shape 'rectangle'.

- ▶ What shape is this piece of paper?
- ▶ Is this shape, a rectangle?
  
- ▶ I'm going to turn the rectangle, like this.
- ▶ What shape is this now?
- ▶ Is it still a rectangle?
- ▶ Do shapes change their name if they turn around?
- ▶ Does your name stay the same if you turn around?
  
- ▶ Are all of these rectangles the same size?
- ▶ Are all of these shapes rectangles?
- ▶ Does it matter what size the rectangle is?
- ▶ Is it still a rectangle?
  
- ▶ Let's investigate how we could draw a rectangle.
- ▶ Could we draw a straight line going this way?
- ▶ And a straight line going this way?
- ▶ And a straight line going this way?
- ▶ And a straight line going this way?
- ▶ Is this a rectangle?

Display a circular piece of paper, for example,



Children use their own informal language to describe shapes as they learn to name and identify different shapes in different orientations.

Turn the circle, for example,



Display different sized circles, for example,

Draw a circle as you describe the line.

Label the shape 'circle'.

- ▶ What shape is this piece of paper?
- ▶ Is this shape, a circle?
  
- ▶ I'm going to turn the circle, like this.
- ▶ What shape is this now?
- ▶ Is it still a circle?
- ▶ Does a circle still look the same if it is turned around?
  
- ▶ Are all of these circles the same size?
- ▶ Are all of these shapes circles?
- ▶ Does it matter what size the circle is?
- ▶ Is it still a circle?
- ▶ Let's investigate how we could draw a circle.
- ▶ Could we draw a curved line going all of the way around?
- ▶ Is this a circle?

