At-Home Activities from *Investigations 3*

Quick Images: Part 2

As they analyze 2-D shapes and designs, students develop their ability to visualize and describe shapes and their attributes. To do this activity:

- Look at an image for 3-5 seconds.
- Recreate the image with tiles or draw it on paper.
- Look at the image again.
- Revise or add to your work.
- Leave the image showing. Check your work. Describe how you saw and remembered it.

Kindergarten

Follow the steps above with an image of an arrangement of square tiles. Use square tiles, colored and cut from grid paper (or digital square tiles), to recreate the arrangement. For example:

Discuss how you saw the image. Here are two different ways students saw this tile arrangement:

- *I saw one on top of the other, that's 2. And then 4 lined up next to it. That's 1, 2, 3, 4, 5, 6 altogether.*
- *I saw a row of 5 on the bottom and then one stuck on top. 5 and one more is 6.*

Try More

- Here are videos you can use to do two Quick Images: Video 1, Video 2.
- If you'd rather work offline, print or build these images. Cover the image after each viewing.

Resources

MWI: Arranging 5 Tiles

(CCSS: K.CC.B.4a, K.CC.B.4b, K.CC.B.4c, K.CC.B.5, K.OA.A.3, K.G.A.1, K.G.B.6)

Grade 1

Follow the steps above with an image of a 2-D shape. Draw the image on a piece of paper. For example:

Discuss how you knew what to draw. For example, here are different ways students thought about this image:

- *I saw a box with an A on it.*
- *I counted 1, 2, 3, 4 sides.*
- *It's a square. It's hard to draw same sides!*

Try More

- Here are videos you can use to do two Quick Images: Video 1, Video 2.
- If you'd rather work offline, print or sketch these images. Cover the image after each viewing.
- Try presenting a few, related images, one after the other. Discuss how the shapes are similar and different. E.g., Shapes A, I & K.
- Present images that provide an opportunity to talk about equal parts of a whole (e.g. half, in half, one half, halves, half of). Again, consider sets of related shapes such as 1, 2, and 3. (See MWI: Equal Parts of a Whole)

Resources

MWI: Naming and Describing 2-D Shapes

(CCSS: 1.G.A.1, 1.G.A.2)

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Grade 2

Follow the steps above with one of the images of a 2-D shape. Draw the image on a piece of paper. For example:

Discuss how you knew what to draw. For example, here are different ways students thought about this image:

- *It was a rectangle!*
- *The top and bottom sides were long. The other sides were short.*
- *It looked like one of those envelopes that comes in the mail.*

Try More

- Here are videos you can use to do two Quick Images: Video 1, Video 2. (If you'd rather work offline, print or sketch these images. Cover the image after each viewing.)
- Try presenting a few, related images, one after the other. Discuss how the shapes are similar and different. E.g., Shapes B, C & L.
- Present images that provide an opportunity to talk about equal parts of a whole (e.g. half, in half, one half, halves, half of). Again, consider sets of related shapes such as A, B, C, and D. (See MWI: Equal Parts of a Whole)

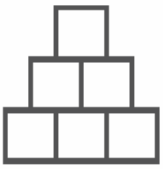
Resources

MWI: Naming and Describing Polygons

(CCSS: 2.G.A.1, 2.G.A.3)

Grade 3

Follow the steps above with one of the 2-D images. Draw the image on paper. For example, use this image:



How did you remember the parts of the image? What did you notice about the relationship among the parts? What helped you remember the whole image so you could draw it?

Here are different ways students might think about this image:

- *I saw there were 3 rows. It goes 1 square, 2 squares, 3 squares.*
- *It's like a pyramid or stairs — there are 3 squares in the bottom, 2 squares on top of that and one square on top of that.*
- *There are 6 squares. They are piled like bricks with the squares on top halfway between the squares below them.*

Try More

- Here are videos you can use to do two Quick Images : Video 1, Video 2.
- If you'd rather work offline, print these images. Cover the image after each viewing.

(CCSS: 3.G.A.1)

Quick Images: Part 2

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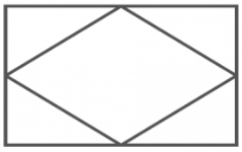
- Look at the image again.
- Revise or add to your work.
- Leave the image showing. Check your work. Describe how you saw and remembered it.

Grade 4

Follow the steps above with one of the 2-D images. Draw the image on paper. For example, use this image:



How did you remember the parts of the image? The whole image?... Are there any parallel or perpendicular sides in the image? What do you notice about the size of the angles? Are they right, obtuse or acute?

Here are different ways students might think about this image:

- *There's a rhombus inside a rectangle. Its points touch the middle of the sides of the rectangle. The rectangle has right angles & the rhombus has 2 obtuse & 2 acute angles.*
- *There is a parallelogram surrounded by 4 right triangles. The parallelogram has parallel sides. The triangles have perpendicular sides.*

Try More

- Here are videos you can use to do two Quick Images: Video 1, Video 2.
- If you'd rather work offline, print these images. Cover the image after each viewing.

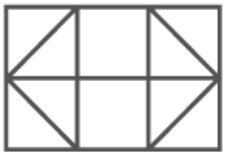
Resources

MWI: Points, Line Segments and Parallel Lines
MWI: Angles and Degrees

(CCSS: 4.G.A.1, 4.G.A.2)

Grade 5

Follow the steps above with one of the 2-D images. Draw the image on paper. For example, use this image:



How did you remember the parts of the image? The whole image? ... What types of [triangles/ quadrilaterals] do you see in this image? How do you know what kind of they are?

Here are different ways students might think about this image:

- *I see 3 squares on top of 3 squares – they all have 4 right angles & 4 equal sides. 4 of the squares are cut into 2 isosceles triangles – they have two equal sides.*
- *There are 2 big right triangles with a rectangle between them and a line through the middle. There are 4 smaller right triangles around the outside. I know they are right triangles b/c they all have right angles. It's a big rectangle.*

Try More

- Here are videos you can use to do two Quick Images: Video 1, Video 2. (If you'd rather work offline, print these images. Cover the image after each viewing.)

Resources

MWI: Properties of Triangles & Quadrilaterals

(CCSS: 5.G.B.3, 5.G.B.4)