



Summ

Teachers

Can you believe that is ?

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at the Summer Institute for Elementary Teachers



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Comparing the length of their body's to the length of their arm span, students can determine their body shape.

Each pair of students will require:

- f A piece of string
- f A ruler
- f A pencil

1. Use the piece of string to measure the height of the tallest person in the pair. The tallest person can stand with their back to the wall, and the second person can put a piece of string to the tallest person's height.
2. Compare the length of the string to the tallest person's arm span.
3. Repeat this process for the other partner, using the string ruler.

Compare your results to the diagrams above. If you resemble A (your height is equal to your arm span) your body shape is a square. If your arm span is shorter than your height, you are like diagram B, a tall rectangle. Lastly, if your arm span is longer than your height, your body type is a short rectangle as demonstrated by diagram C.



Only using your foot, students can measure their height.

Each student will require:

- f A pencil
- f A sheet of construction paper

1. Remove your right shoe.
2. Trace the shape of your foot onto a piece of construction paper.



Wrap a string around your wrist to fit. How many times will this string go around the base of your thumb? How does the length of the string compare to your handspan? How many lengths of string do you need to circle your neck? Your head

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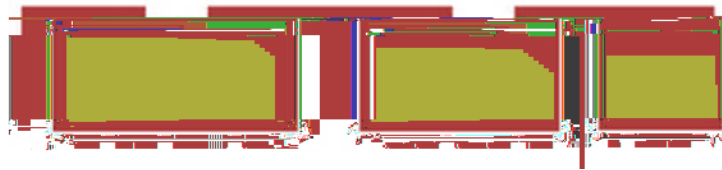


The golden ratio is also known as the golden mean, the golden section, or the golden proportion.



$$AC:AB=AB:BC$$

Which one is the most visually appealing to you?



- f* light switch plate
- f* file card
- f* television screen
- f* paperback novel
- f* door frame



1. Measure and record your height.
2. Stretch out your arm, and measure the distance from the top of your head to the tip of your middle finger of your outstretched arm. Record this result.
3. Compare the ratio of your height to the measure of the length from the top of the head to the end of your outstretched arm. When calculated, what does the ratio approximate?
4. Next, measure your height and your navel height. Compute the ratio of height: navel height. What did you learn?
5. Measure your entire arm length and the length of your arm from fingertip to elbow. Write the result as a ratio.

1. Have someone take a digital 'headshot' photo of you. Draw rectangles on the print as shown.
2. Measure the length and width of the rectangle formed from the top of the head to the chin and from one side of the face to the other. To calculate the ratio, divide length by width.
3. Measure the length and width of the rectangle formed from one side of the face at eye level to the other side at eye level and from eye level to chin. To calculate the ratio divide length by width.

During the 5th century B.C., ancient Greek architects of the 5th century B.C. were aware of the golden rectangle. The golden rectangle is

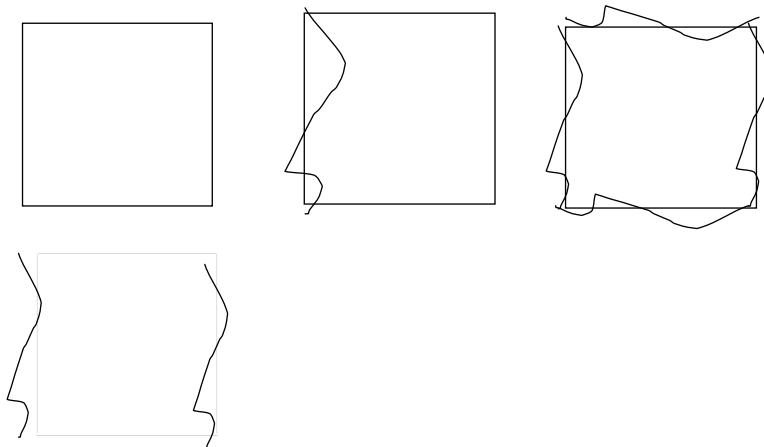




Students will learn to easily draw a tessellation pattern by following these simple steps.

- f A pencil
- f An eraser
- f A piece of paper
- f Coloring pencils

1. Begin with drawing a square.
2. Change the shape of one side.
3. Copy this same line change on the opposite side.
4. Rotate the square and repeat the line on the remaining edges.
5. Erase the square.
6. Add lines to the inside of the shape to turn them into a picture.
7. Add colour to enhance your picture.



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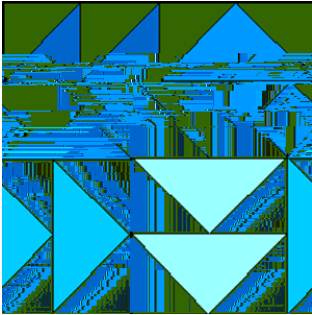
1. Begin with drawing a square.
2. Change the shape of one side.
3. Repeat the line on the opposite side.
4. Rotate the square and repeat the line on the remaining edges.
5. Erase the square.
6. Turn the shape, looking for two hidden animals, flowers, fish, insects, or birds.
7. Draw a line that separates the two hidden shapes you have found.
8. Add a few lines to emphasize your hidden shapes.
9. Separate the two shapes so you can use them one at a time.
10. Make four versions of each shape, each with more detail.
11. Color all of one type of shape using the same basic color scheme.
12. Line up the simplest version of one shape with the most complex of the other along the bottom.
13. Line up the next most complex with the next simplest over the bottom row.
14. Add the next row in the same way.



The monkey wrench quilt was the first to be displayed. It was the signal for the slaves to get ready for their escape. It was a symbol that told them to gather their 'tools.' Tools could be anything that they needed to take with them to survive, such as compasses, weapons, food, and possibly a few coins. A monkey wrench is used by blacksmiths to change metal. This symbol meant that it was time for the slaves to make a change. Getting their tools ready was also a reminder that they needed to have strong 'mental' tools, such as being alert.

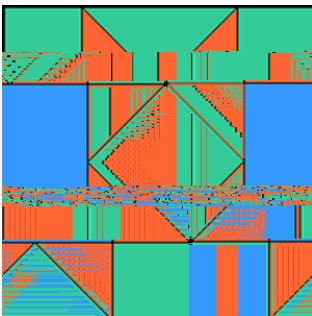
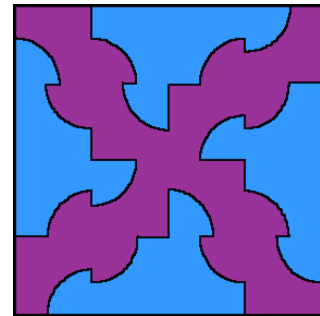
The wagon wheel pattern was the second quilt to be displayed on the fence. It was a signal which alerted slaves to pack up the supplies that they would





Geese fly north in the springtime, and their flight path could guide the travelers.

Slavecatchers from the south hunted for runaways with tracking dogs. This pattern told the slaves to walk in a crooked path like a drunkard, to avoid capture.



The North Star quilt was used as a navigation tool, and sung about in the song "Follow the Drinking Gourd." This pattern like "Flying Geese," is a directional pattern. The runaway slaves looked to the sky for guidance.



Students will construct their own Drunkard's Path Quilt Block. This was one of the quilt patterns that served as a symbol for the African Americans who escaped slavery by following the Underground Railroad.

- f* 2 colors of construction paper
- f* A pair of scissors
- f* A pencil
- f* A glue stick

1. Cut 2

