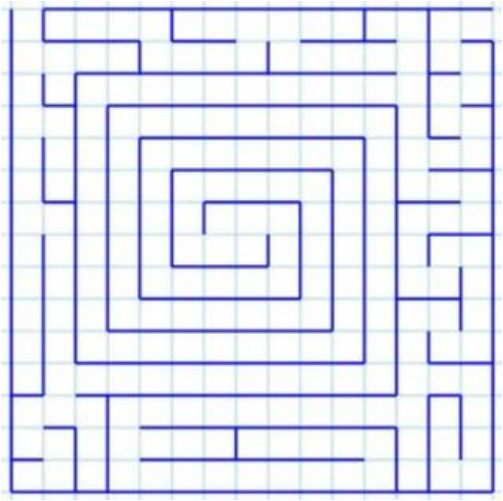
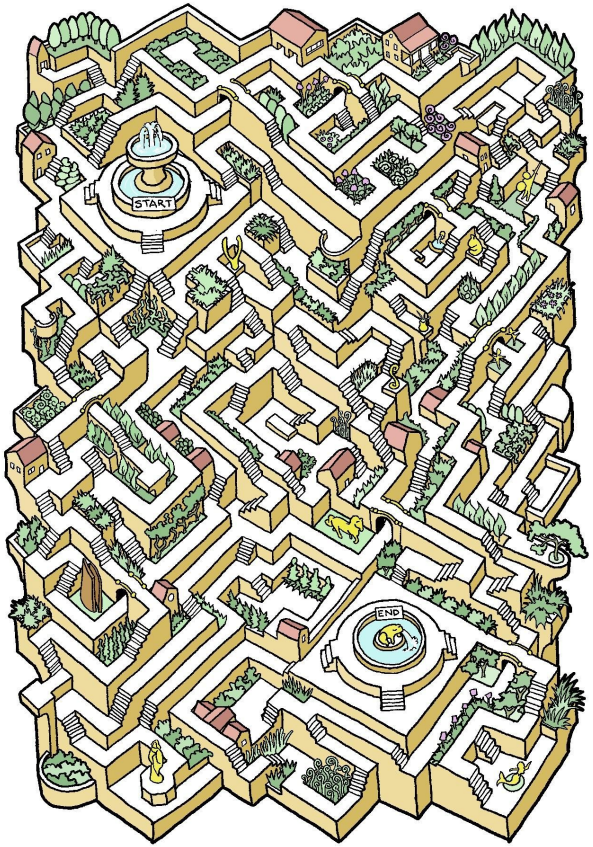
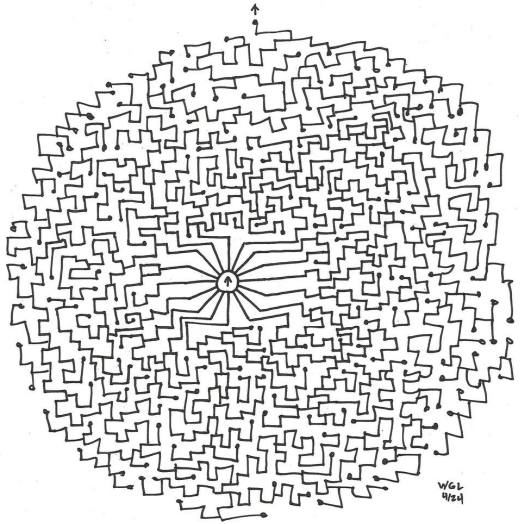
Week 3 - Building Mazes







Week 3 - Building Mazes

https://www.youtube.com/watch?v=8ICzOF_ctYw

BUILDING MAZES: Task 1_Design a simple maze using grid paper, ruler and pencil and eraser.

- Must follow the lines on the page
- Must follow the following paths:
  Vertical, Horizontal *or* ***45 degree angle***

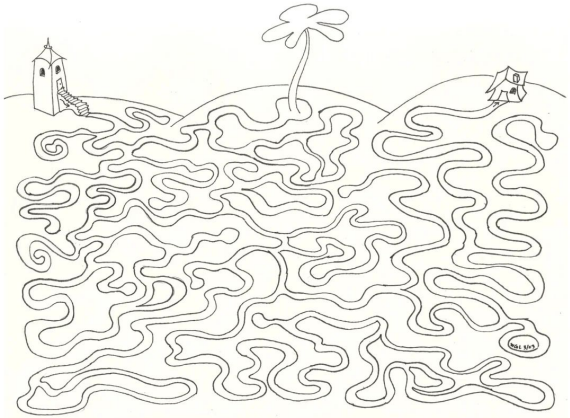
- Must include at least 6 x 45 degree corners across the maze
- Maze must stretch from one side of the grid to the other with a clear **start** and **finish**

Week 3 - Building Mazes

https://www.youtube.com/watch?v=mGhvr63-YxQ

BUILDING MAZES: Task 2_Design a free form maze that uses curved lines to create a 'freeform maze' OR contained within an irregular shape.

Free from maze



Curved lines

Week 3 - Building Mazes

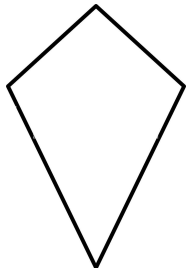
BUILDING MAZES: Task 2_Design a free form maze that uses curved lines to create a 'freeform maze' OR contained within an irregular shape.

Irregular Shape: A shape that does not have all sides equal and all angles equal.

In simpler terms: It's a shape that looks kind of wonky or uneven. It doesn't have the same predictable, balanced look as a regular shape like a square or circle.

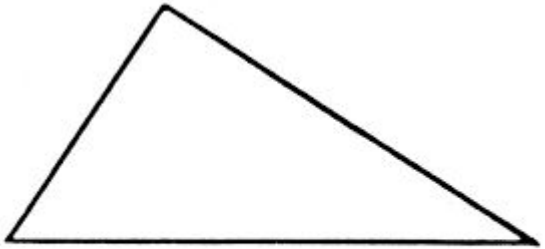
Here's why that matters:

- **Sides:** In an irregular shape, the sides can all be different lengths.
- **Angles:** The angles inside the shape can all be different sizes.



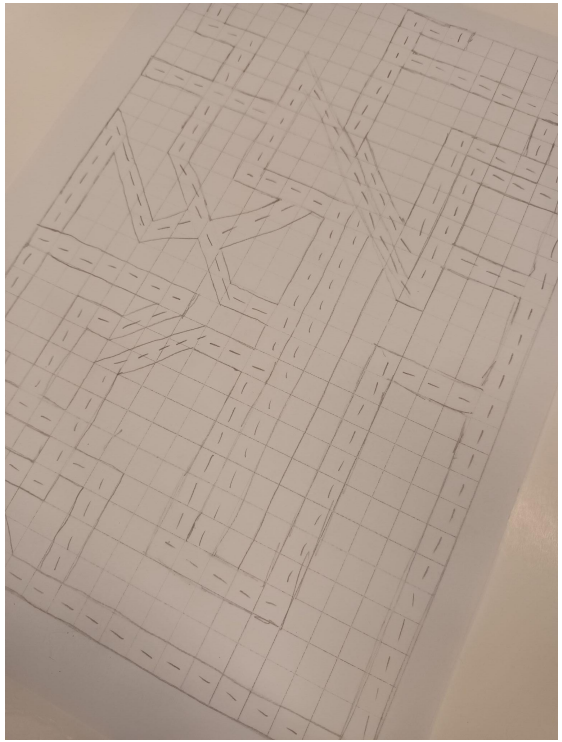
Examples of Irregular Shapes:

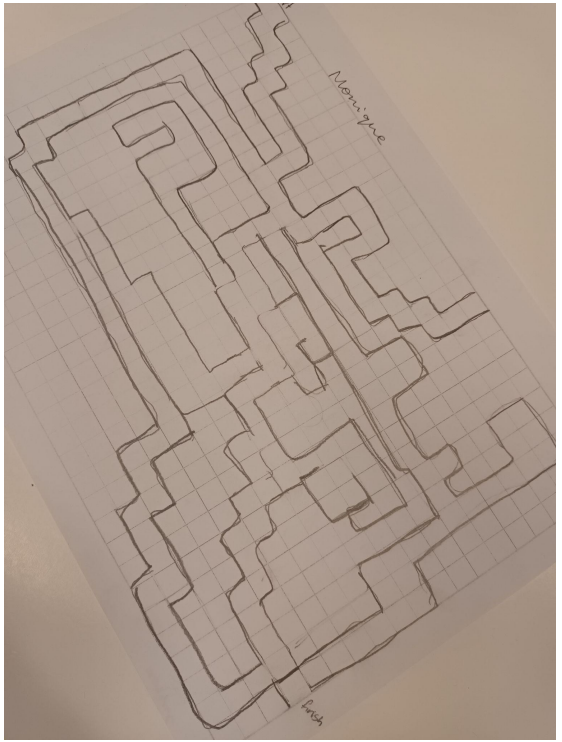
- A scalene triangle (all sides different lengths)
- A rectangle (opposite sides equal, but not all
- A kite
- A blob or free-form shape

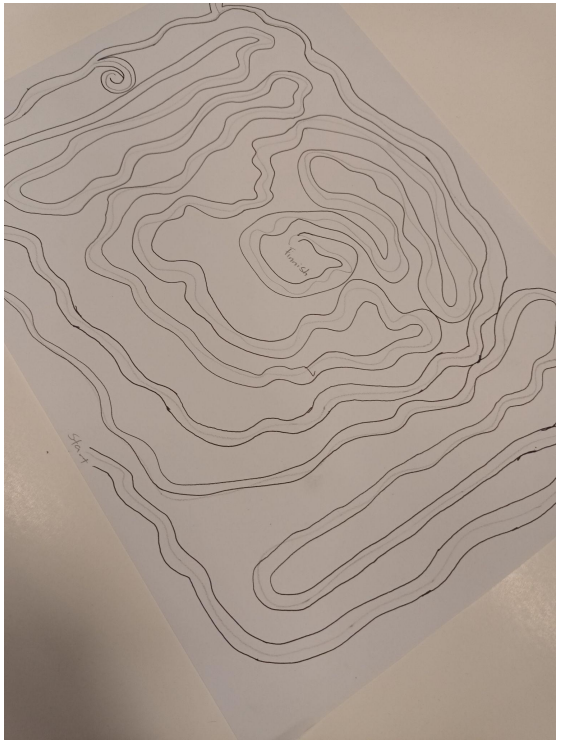


Scalene.

Student Work

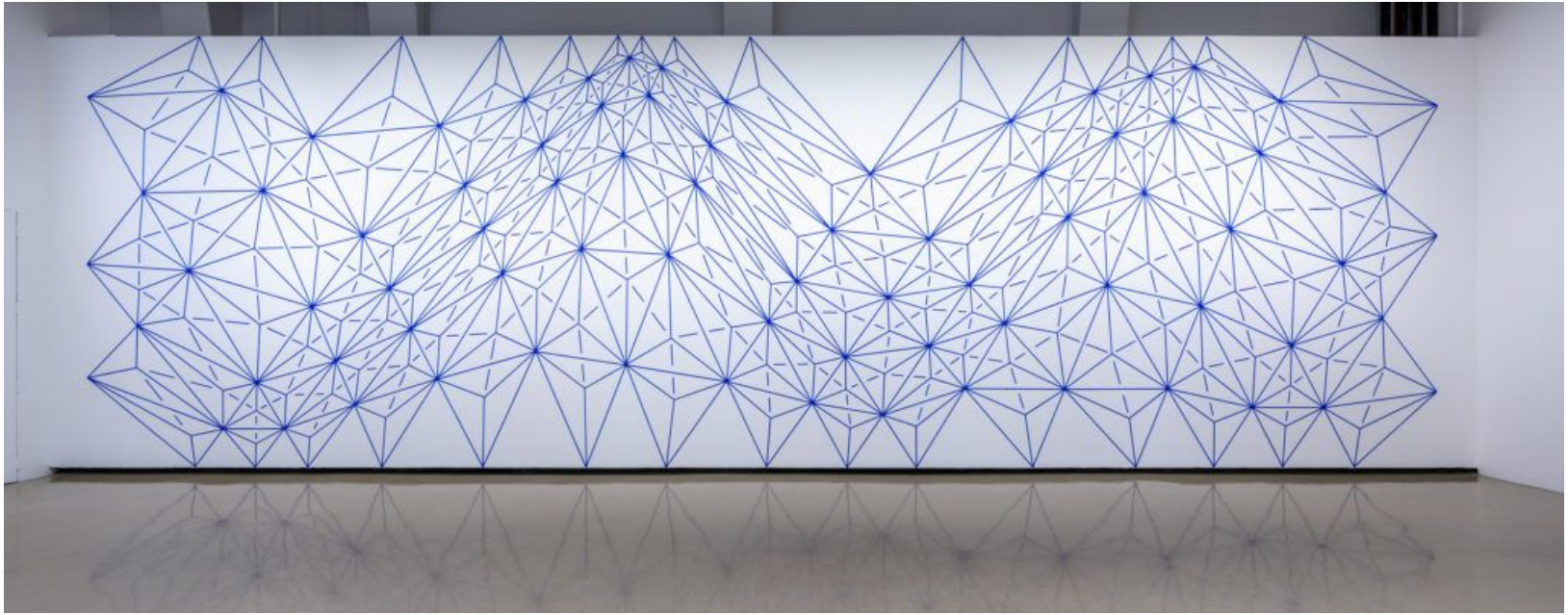






Week 4 - Line Drawing

LINE DRAWING: Measure and divide using a ruler and pencil. Follow the instructions to create a geometric line drawing.

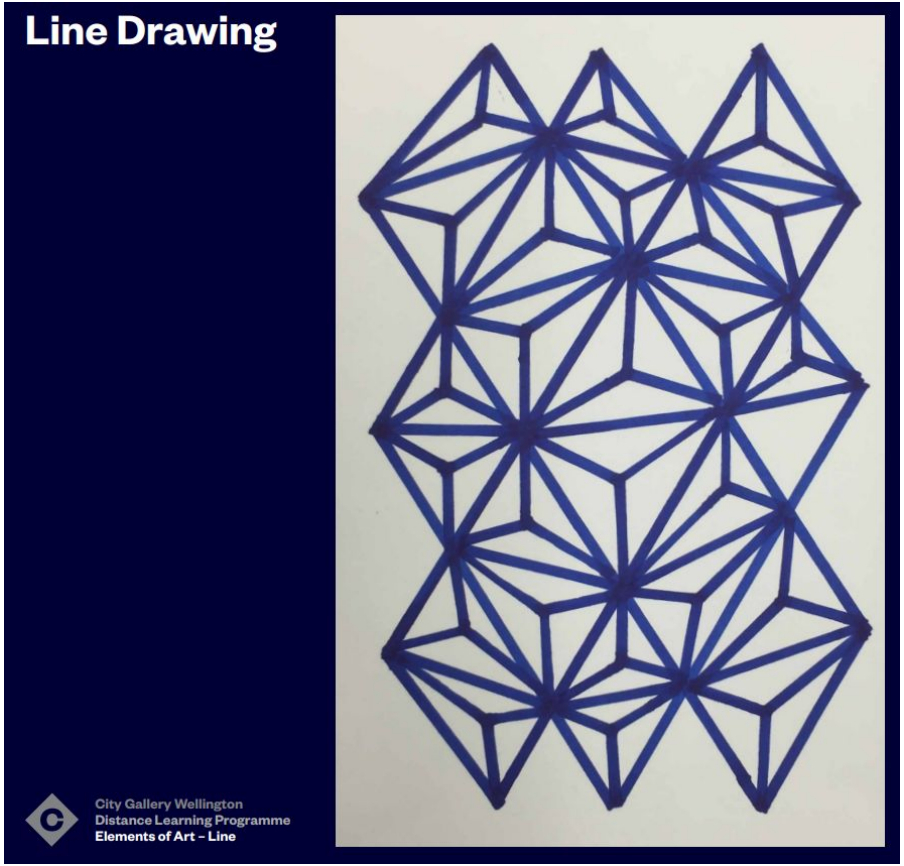


Kerrie Poliness *Blue Wall Drawing 1* 2007–19

Credit:
https://citygallery.org.nz/education/programmes/elements-of-art-line-distance-learning-programme/
Further reading and information available at the above link

Week 4 - Line Drawing

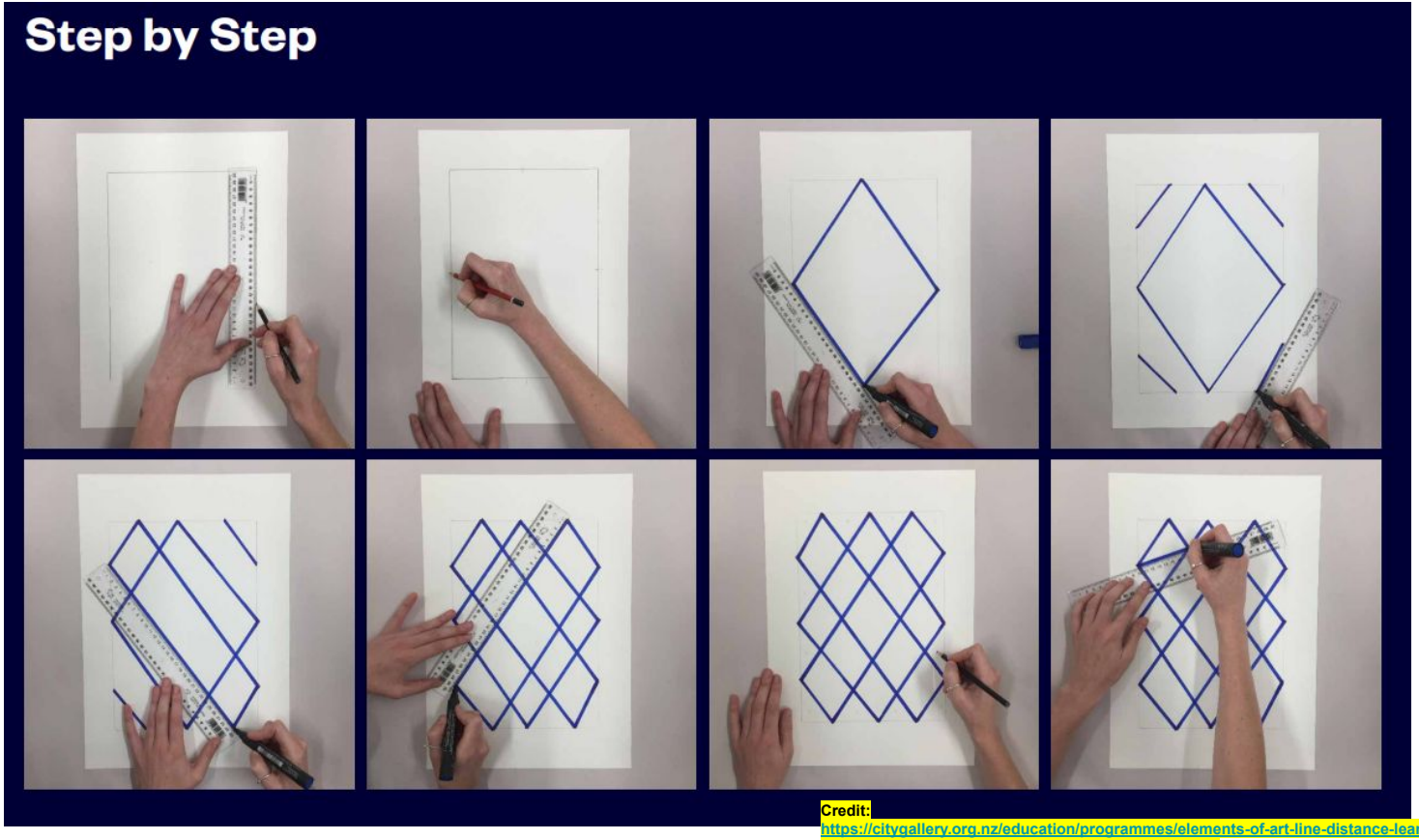
OUTCOME:



PROCESS:

- Use the rectangle template and measure and halve each side. Make a mark.
- Connect these marks by ruling diagonal lines. *What shape have you made?*
- Use your ruler to measure and make a mark half way between each of the diamonds tips and the end of corner of the rectangle template.
- Repeat on each side - *vertical and horizontal axis*
- Connect these marks with a series of diagonal lines.
- Connect each diamonds horizontal points with a diagonal line. *What shapes have you made?*
- Estimate the centre of each triangle with a dot.
- Use your ruler to connect your centre point estimation with each of the triangles corners. Repeat.
- This is your design. Add tone and detail to enhance your 3-D effect.

Week 4 - Line Drawing



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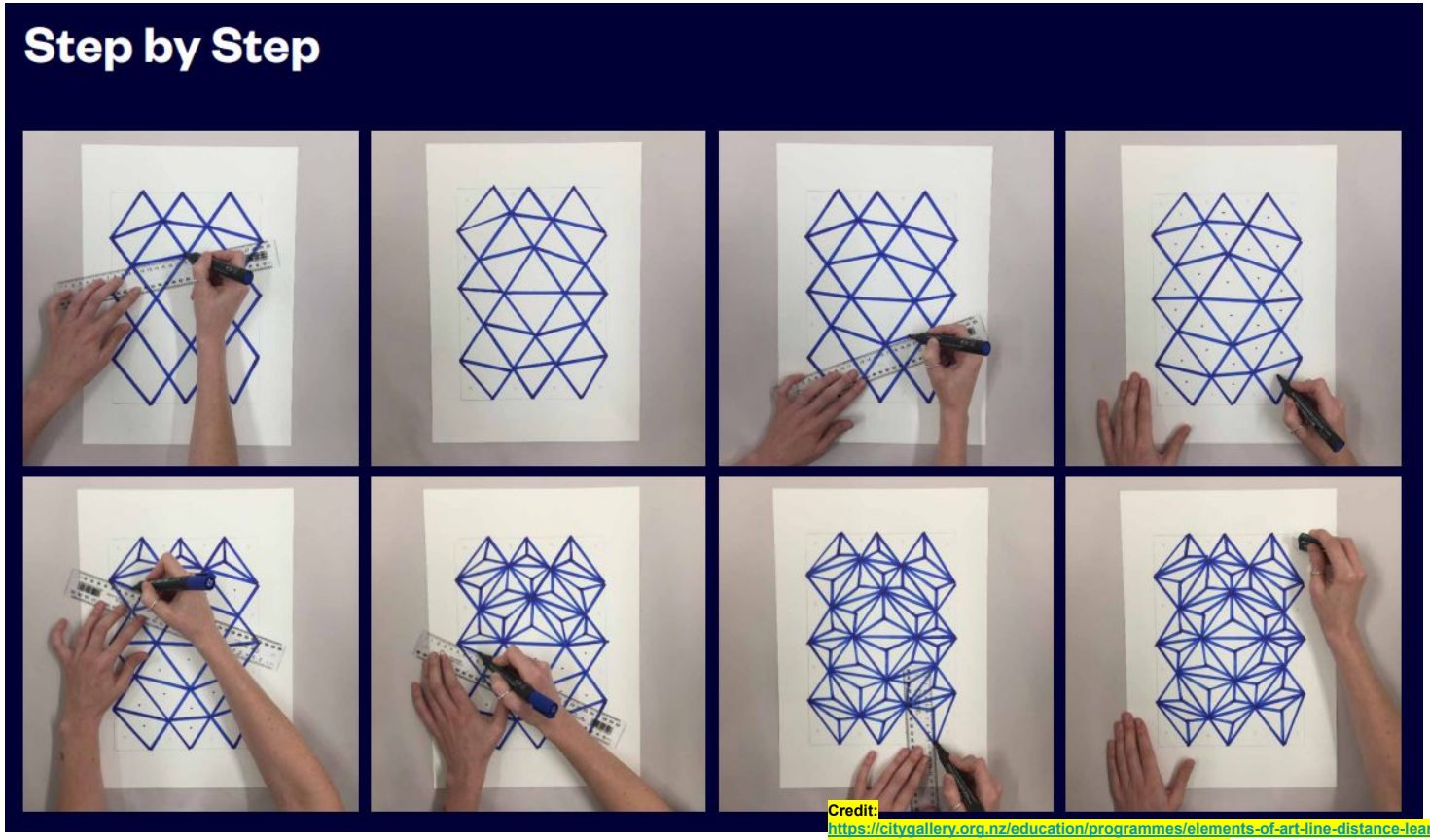
Week 4 - Line Drawing



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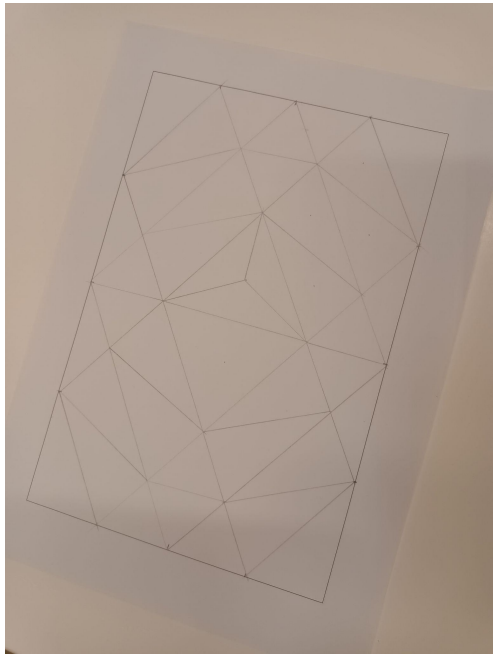
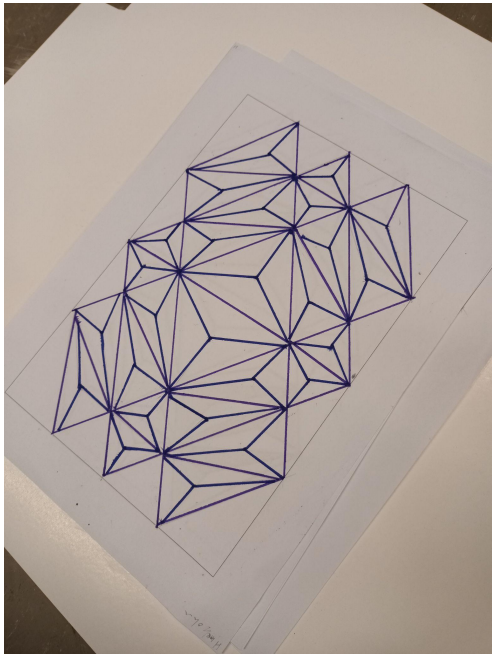
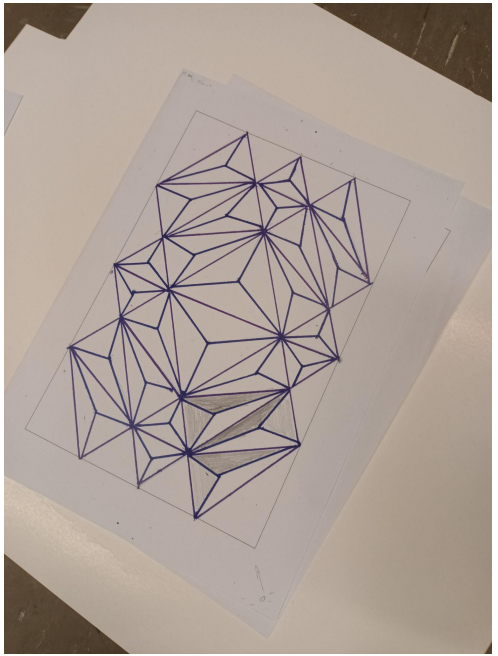
Student Work







Week 5 - Circle Collage

CIRCLE COLLAGE: Use circle template, scissors, glue to complete an individual circle collage.

Credit: https://www.youtube.com/watch?v=BuKwqcYGGSo

Week 5 - Circle Collage

CIRCLE TERMS:

Circle: A perfectly round shape. All points on the edge are equally far from the center.

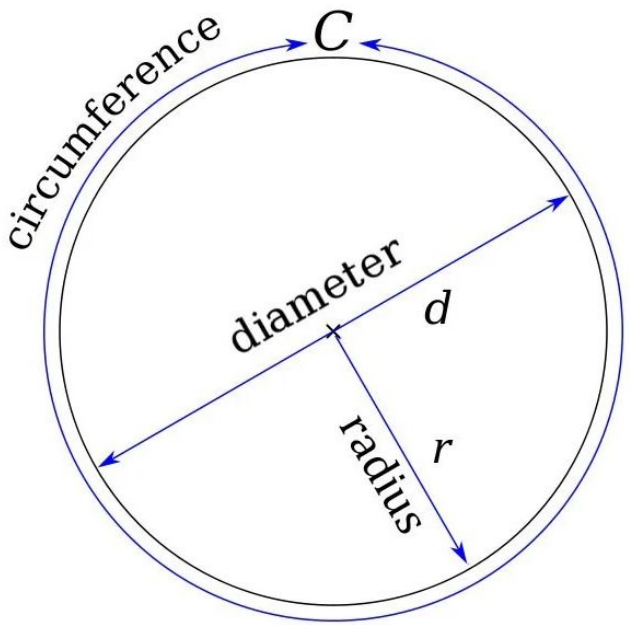
Center: The middle point of a circle.

Radius: The distance from the center of a circle to any point on its edge. It's half the distance across the circle.

Diameter: The distance across a circle, going straight through the center. It's twice the radius.

Circumference: The distance around the outside edge of a circle. It's like the perimeter of a circle.

Area: The amount of space inside a circle.



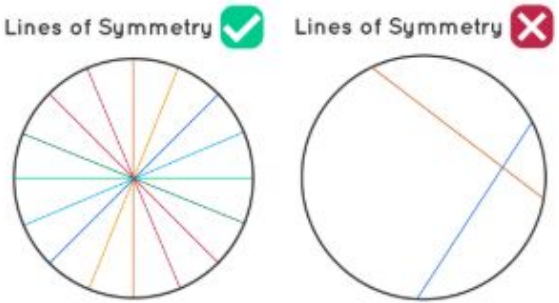
Week 5 - Circle Collage

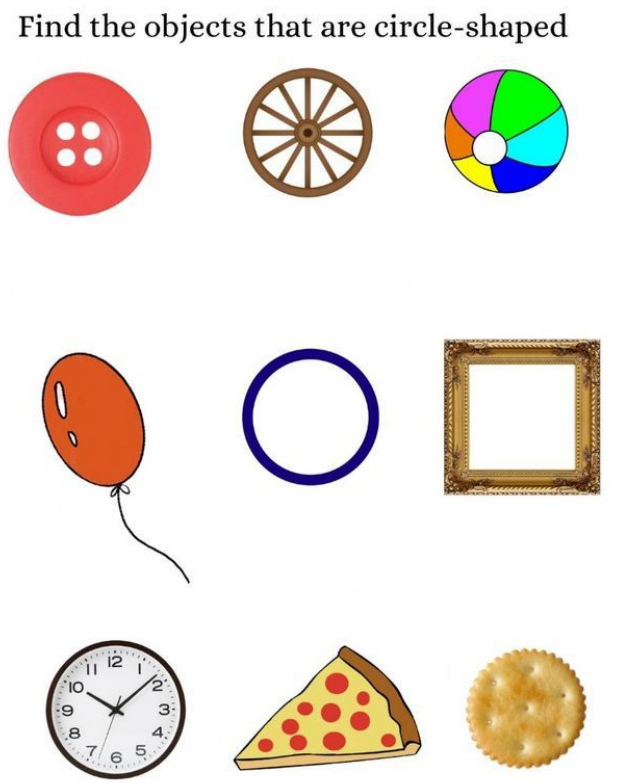
CIRCLES + SYMMETRY:

What is Symmetry . . . Symmetry means that a shape can be folded or divided into two identical halves. One half is a mirror image of the other.

Symmetry:

- "A circle has many lines of symmetry. This means you can fold it in half in many different ways, and the two halves will match perfectly."

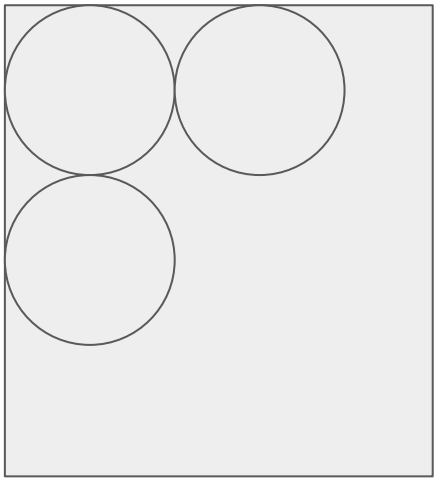




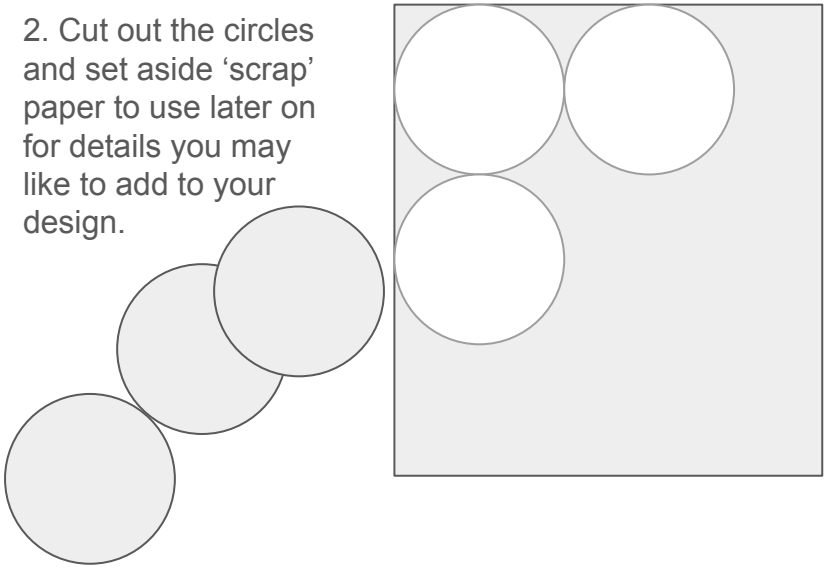
Week 5 - Circle Collage

CIRCLE COLLAGE: Use circle template, scissors, glue and coloured paper to complete an individual circle collage.

1. Trace circles onto coloured paper using the circle template and a pencil . . . or practice using your compass.



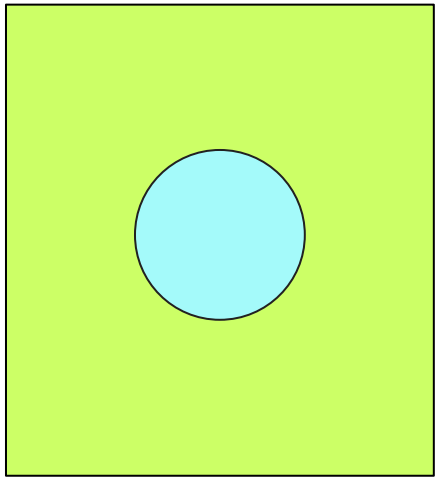
2. Cut out the circles and set aside ‘scrap’ paper to use later on for details you may like to add to your design.



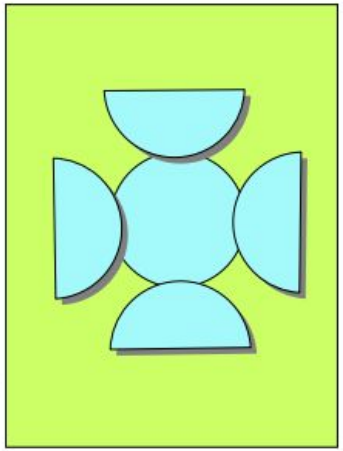
Week 5 - Circle Collage

CIRCLE COLLAGE: Use circle template, scissors, coloured paper and glue to complete an individual circle collage.

3. Place glue behind one of the circles and paste in the centre of your page.



4. Cut two of the remaining circles in half. Place these evenly around the central circle and glue them in place. This is called a radial pattern.



How would we measure half a circle?

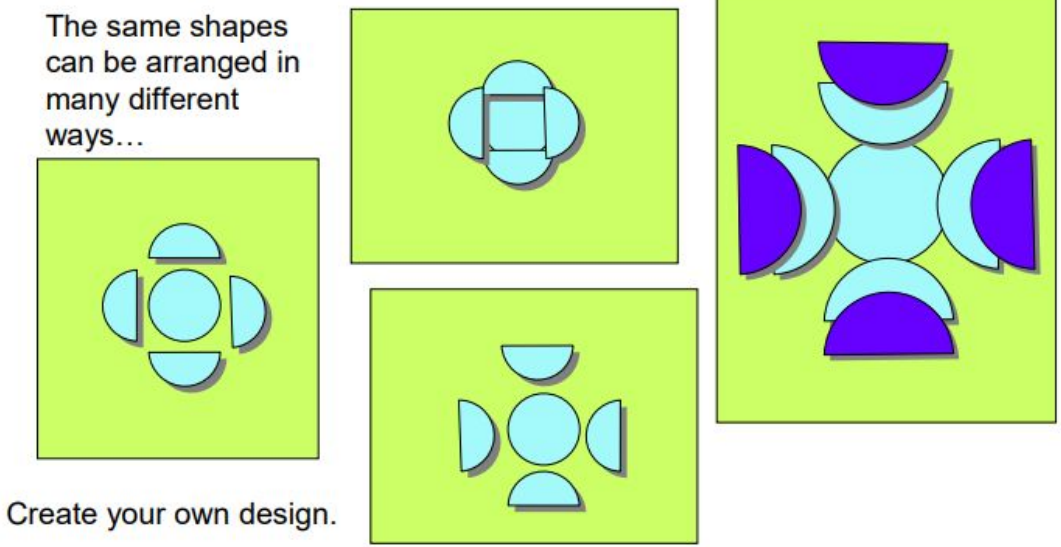
What would you measure?

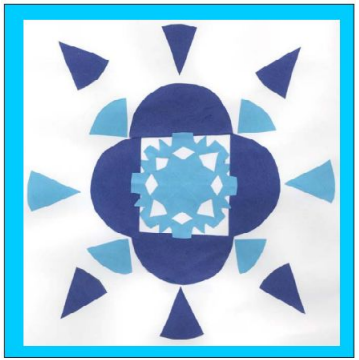
Does anyone know the term used in Geometry for more than one of the same shape?

Week 5 - Circle Collage

CIRCLE COLLAGE: Use circle template, scissors, coloured paper and glue to complete an individual circle collage.

5. Keep adding to your design, building out from the central circle.

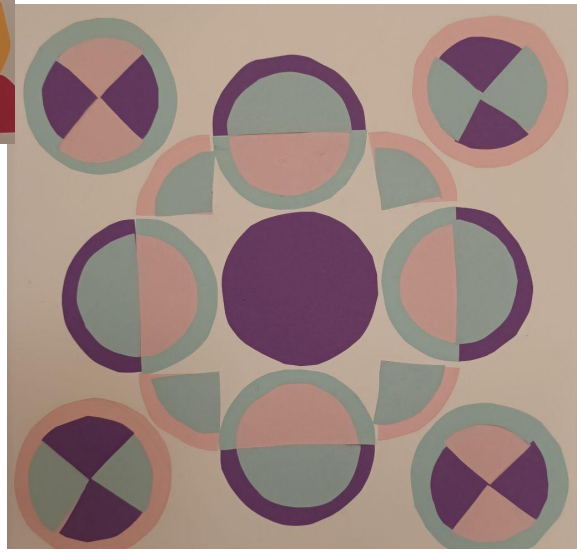




What shapes do you get when you quarter (¼) your circle?

What shapes do you get when you divide your circle in into ⅛?

Student Work



Week 5 - Circle Collage

ESTIMATION CHALLENGE:

1. **Use your finished collage to estimate how many full circle have been used to make your collage?**

TIP: ***Use a Tally Chart to calculate the answer . . .*** Tally up how many full circles you have used _ then how many half circles you have used _ then how many quarter circles you have used. Fill out the Tally Chart below to help you count:

	Full circles used	½ circles used	¼ circles used	⅛ circles used
Tally				
Total				

Week 5 - Circle Collage

ESTIMATION CHALLENGE:

1. **Use your Tally Chart results to calculate how many full circle have been used to make your collage?**

*** HOW WOULD YOU WORK THIS OUT???**
*** WORK TOGETHER TO GENERATE YOUR ANSWER . . .**

Who wants to share their workings with the class????

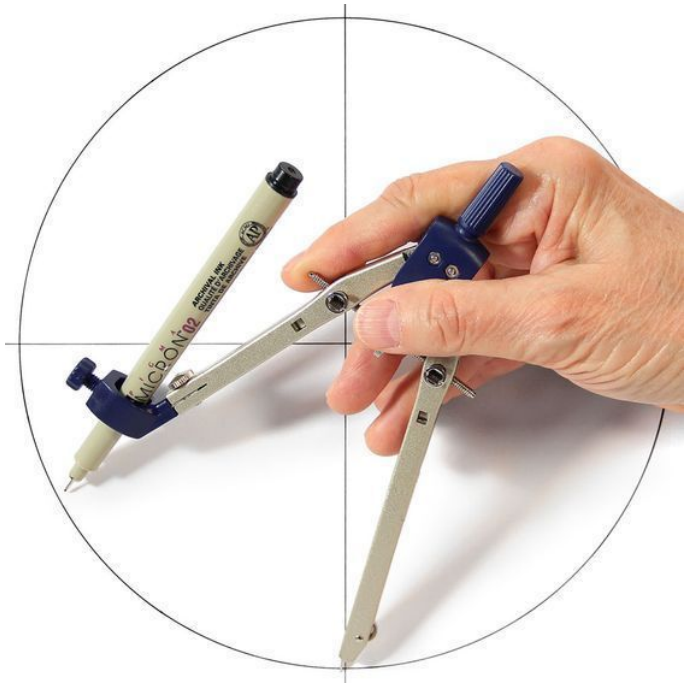
Week 5 - Circle Drawing

DRAWING ACTIVITY: Use circle template or compass to draw a circle artwork.

Draw:
Use your compass, pencil and ruler to draw a series of circles with a diameter of the following measurement of your A3 page:

- 5cm
- 10cm
- 20

How do we set the diameter with a compass?
What term would we use?
How do we find this measurement?



Week 5 - Circle Drawing

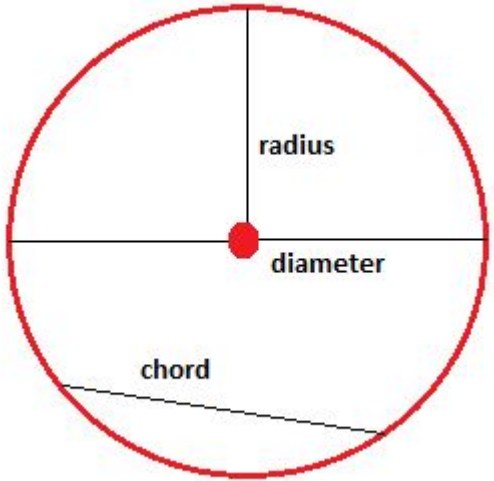
DRAWING ACTIVITY: Use circle template or compass to draw a circle artwork.

Draw:
Use your ruler to draw and label on one of your circles the following terms

- Radius
- Diameter
- Chord

DISCUSS:

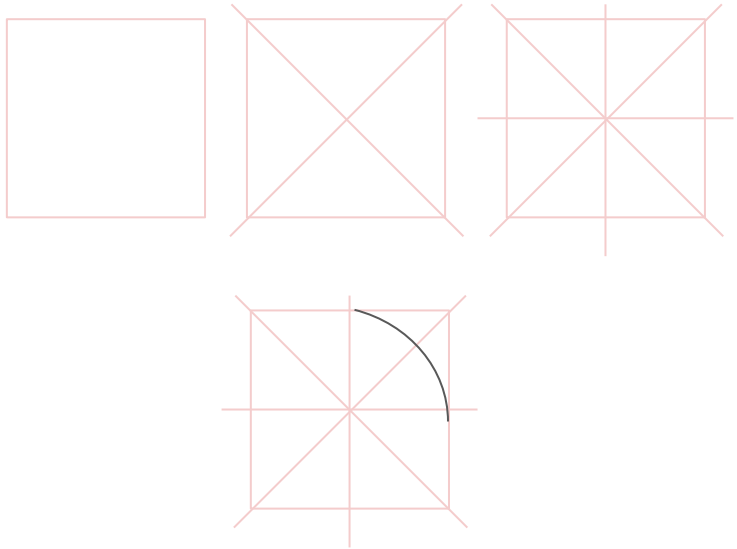
What do these terms measure?
What makes the chord different?

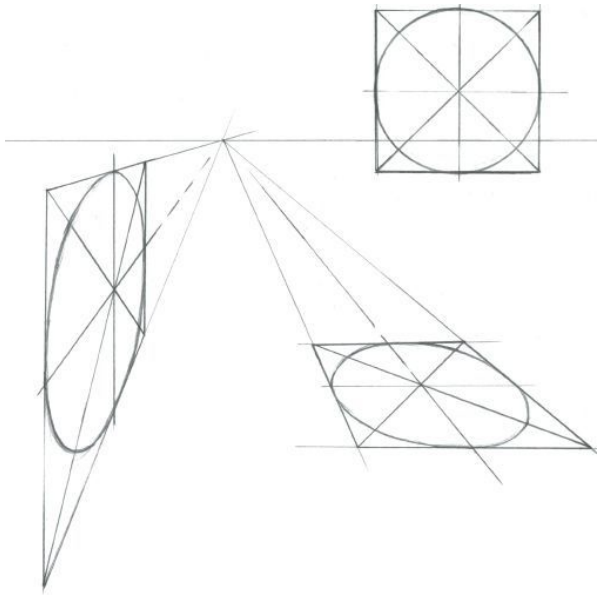


Week 5 - Circle Drawing

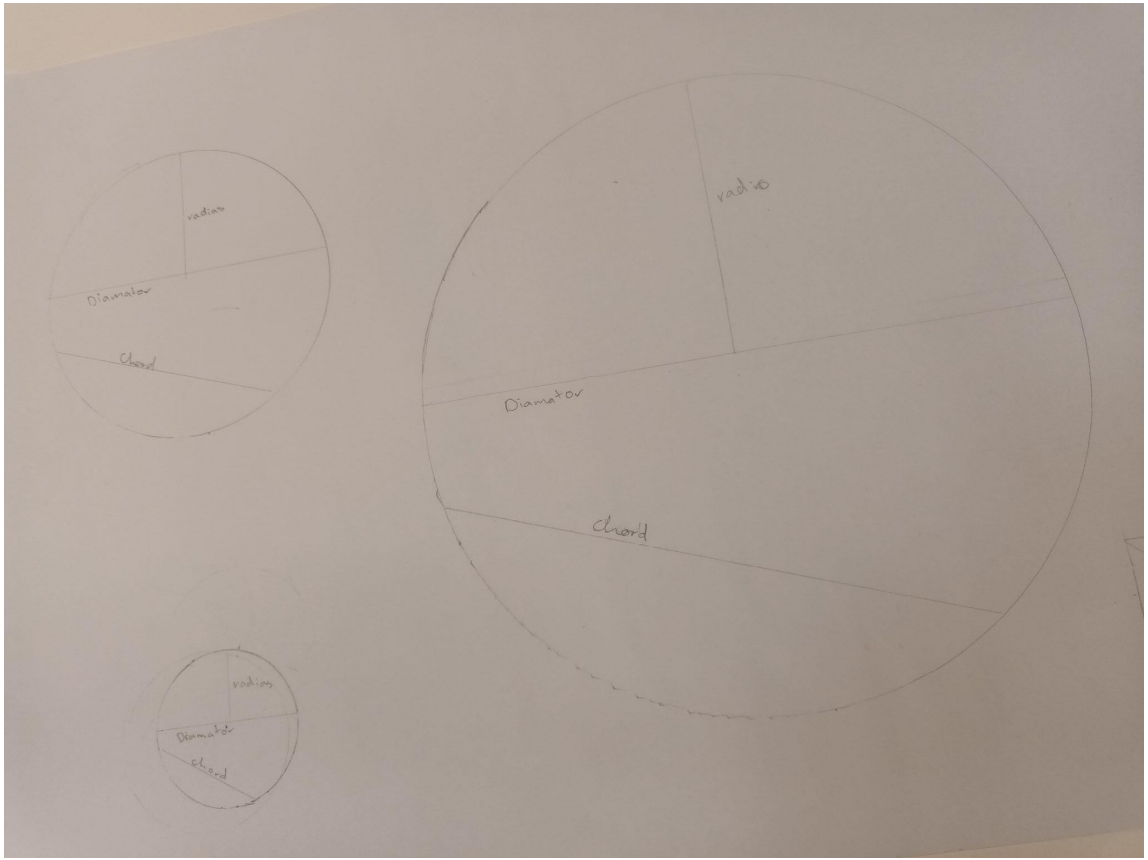
CHALLENGE

DRAWING ACTIVITY: How to draw a circle without a compass using a square as your starting point.



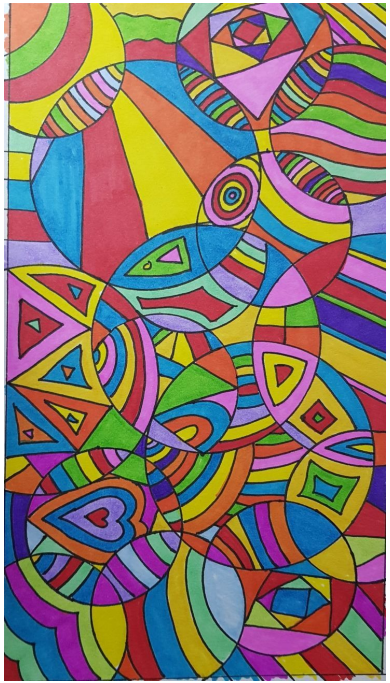


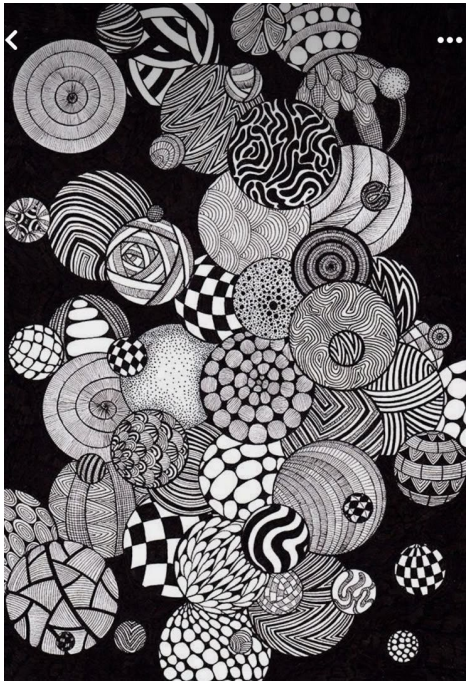
Student Work



Week 5 - Circle Drawing

DRAWING ACTIVITY: Use circle template or compass to draw a circle artwork.





Student Work