

Folded Geometry

Reporting Category Geometry

Topic Drawing representations of points, line segments, rays, angles, and lines

Primary SOL 3.15 The student will identify and draw representations of points, line segments, rays, angles, and lines.

Materials

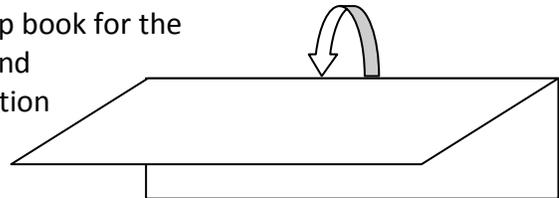
- 18 x 20 inch construction paper
- Scissors
- Geometry Sort Recording Sheet (attached)
- Cards for Geometry Sort (attached)

Vocabulary

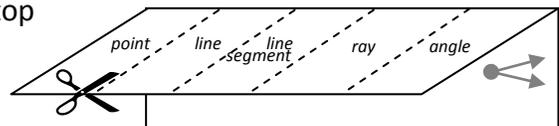
point, line, line segment, ray, angle, endpoint, vertex, vertices

Student/Teacher Actions (what students and teachers should be doing to facilitate learning)

1. Explain to students that they will be making a flip book for the geometry terms: *point, line, line segment, ray, and angle*. Distribute sheets of 18 x 20 inch construction paper and scissors. Have each student lay the sheet of paper horizontally and fold it in half horizontally, folding the top edge down to create a top flap.



2. Next, model for students and lead them in folding their papers vertically into thirds by folding the left and right thirds over, one on top of the other. Then, lead them to fold their papers again vertically in half. Ask students how many sections the papers will have when they are unfolded at the vertical folds. Have students unfold the vertical folds and cut off one of the sections because only five sections are needed to create the flip book. Next, have students cut along the four creases in the top flap up to the horizontal fold to create five top flaps. This creates the “flip” pages of the book.



3. Instruct students to write the five terms *point, line, line segment, ray, and angle* on the outside of the five top flaps and the meaning of each term on the underside of each flap. Then, have students draw each figure under each flap on the surface of the paper that was not cut.
4. Have students exchange flip books with partners and practice flipping the pages to match the terms with the meanings and drawings.

Assessment

- **Questions**
 - How is a ray different from a line segment?
 - How many points are on a line?

- **Journal/Writing Prompts**

- Look around the classroom for real-world objects that have line segments and angles. Draw a sketch of three examples, and label the line segments and angles.
- Draw a ray and a line segment. Write two statements that describe how these two figures are different.

- **Other**

- Have students place the attached Cards for Geometry Sort on the attached Geometry Sort Recording Sheet to identify points, line segments, rays, angles, and lines. Instruct students to explain their reasoning in the space at the bottom of each column.

Geometry Sort Recording Sheet

Name: _____ Date: _____

Lines	Line Segments	Rays	Angles
How do you know?			

Cards for Geometry Sort

Copy cards on card stock, and cut out.

