

STRAIGHT LINES AND CURVES

Subject

Mathematics

Prepared By

[Instructor Name]

Grade Level

2

Overview

This lesson plan covers teaching content for;

1. Straight Lines
2. Curves

Objectives

Students should be able to;

1. Distinguish between straight line and curves.
2. Identify the presence of straight line and curves in real life situations.

Activity Starter/Instruction

1. Call the attention of the class and pretend that a student across the room has asked you a question by saying, "Oh, Katie, did you need my help? I'll be right there."
2. Then walk in a very convoluted, curving, zigzag path to get to the students.
3. Along the way keeps saying, "I'm on my way. I'll be there in just a bit".
4. At this stage, the class will hopefully begin to laugh as they watch you walk this rather crazy path. One student might ask, "Why don't you just walk in a straight line so you will get there faster?"
5. Then you can ask the students "What difference would it make if you plowed a field with straight lines or curved lines?" Don't let students answer yet.

Guided Practice

Lesson 1-15 Mins

1. Tell students to make two points on a piece of paper with each of the marked "x" and name A, B respectively. Indicate on the board so that students will have visual understanding of what to do.
2. Then ask, how many ways can you go from point A to point B?
3. Students will most likely draw a straight line to meet both point together.
4. Tell students, there are plenty of ways to do this while also connecting both point in a straight line, curve, zigzag, etc.
5. Tell students an example of point A and B is there various houses (A) to school (B) and, not everybody walk a straight path to school. Students should picture their houses to school and connect point A to B

Materials Required

- Paper
- Ruler
- Pen
- White board and marker

Additional Resources

- <https://livinghistoryfarm.org/farminginthe30s>
- http://www.haringkids.com/lesson_plans/lear
- <https://www.learner.org/courses/mathillumin>

Additional Notes

Assessment Activity

1. Provide students with a worksheet of different shapes and sizes (square, triangle, pentagon, hexagon, circle, etc.)
 - Have students identify all the shapes with curved lines and color them Green
 - Identify all 3-sided shapes with straight lines and color them Purple
 - Identify all 4-sided shapes with straight lines and color them Orange
 - Color the rest of the straight lines shapes Red.
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Teacher Practice

Lesson 1-20 Mins

1. Tell the students "A line is simply an object in geometry that is characterized as a straight, thin, one-dimensional, zero width object."
 2. Explain that a straight line is a succession of points that are aligned in the same direction. Or in other words, in order to go from one point to another, we never change direction.
 3. Draw diagram of a straight line on the board to show example.
 4. Illustrate to students by asking one of them to walk a straight line in and out of the class.
 5. Now, introduce curve to the class. -"On the contrary, the points of a curved line do change direction from one point to the next."
 6. Draw diagram of a curve line on the board.
 7. Draw two different types of dotted line on the board. One that will make a straight line when traced to join each other, and another that will give a curved line.
 8. Tell students we can observe this line by joining this dots together. Let them join the dots and say loud each of the lines it gives.
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6. Now ask, which is the shortest way from A to B?
7. Wait for responses from students. -That's it! The first one, and that's how we define a straight line.
8. Between two points, the line that connects them is straight if it is the shortest possible distance between them. If the line isn't the shortest distance between the two points, it is a curved line

More Straight Lines

9. Tell students to look round the class and identify straight lines and curves that they see (Places to look includes, ceiling, floor tiles, hair, board, under their shoes etc.)
 10. While showing, tell them there are other kinds of straight lines that they see every day.
 - Vertical straight lines go up and down.
 - Horizontal straight lines go from left to right or vice versa.
 - Parallel straight lines have the same slope and are the same distance apart, so they will never intersect.
 - Perpendicular straight lines cross each other and form four perfect right angles in the process.
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Summary		
1. Students should know they have probably drawn all kinds of lines throughout their life and while they walk home they should note straight lines and curves in objects that they see.		