Math 8, Unit 2: *Proportional & Non-proportional Relationships*

Proportional   NONproportional
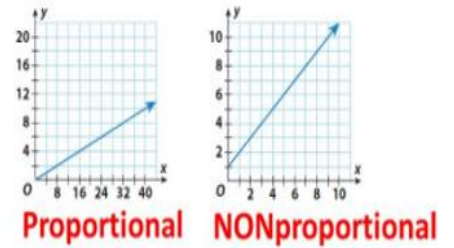
Our Learning Goals:

We will…

- ✓ Use similar right triangles to develop an understanding of slope.
- ✓ Graph proportional relationships.
- ✓ Use data from a table or graph to determine rate of change, slope, and y-intercept.
- ✓ Represent linear proportional and non-proportional situations with tables, graphs, and equations.
- ✓ Solve problems involving direct variation.
- ✓ Distinguish between proportional and non-proportional situations.
- ✓ Write an equation in the form of y=mx+b to model linear relationships between two quantities.
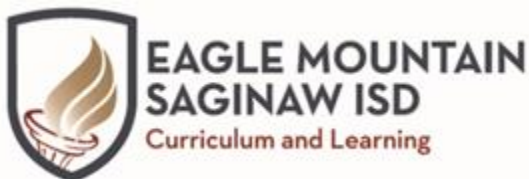
Why do we study this?

- ❖ Students will see that linear relationships are proportional when the data is graphed on a coordinate plane that goes through the origin (y-intercept of 0).
- ❖ Students will see that linear relationships that are non-proportional when the data is graphed on a coordinate plane does not pass through the origin (y-intercept is not 0).
- ❖ Slope is a graphical representation of the steepness of a line and in real-world situations is defined as unit rate will help students better understand the meaning of slope.

How we will show what we have learned…

Formative Assessments	*Summative Assessments*
Ongoing formative assessments during lesson and homework activities will help in monitoring learning and providing feedback for students.	Summative assessments to measure learning at the end of concepts may include the following: • Tests: Proportional/Non-proportional • Unit 2 Exam (District Wide)

Sample Problem:

Janna spends her afternoons as a lifeguard at the community pool. Each day, she is paid $10.00 plus $2.00 per hour. Write an equation for Janna's daily earnings. If she works 6 hours each day for 10 days, what are her total earnings?

Additional Support:

- Check the teacher's Canvas page for notes, activities, and assignments.

- Search the topic on the web. We recommend using Khan Academy. www.emsisd.com/khan

- Attend tutorials.

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Questions? Please contact your 8th grade math teacher.

--Your EM-S ISD 8th Grade Math Team