Name: _____

Math 8/Science Checklist: Q3 W 1-2 January 16th- January 25th

Big Ideas:

• Math: Functions	• Science: Rock Cycle

Upcoming Dates:

Week 1	Week 2
☐ 1/16: - English MAP Assessment ☐ 1/16: - Cycle 3 Kick-Off, Identity ☐ 1/18: - Math MAP Assessment ☐ 1/19: - Seminar (____%)	☐ 1/22: - Teacher Work Day (No School) ☐ 1/23: - Rock Journey Check-in (___✓, M, 0) ☐ 1/25: - Advisory ☐ 1/25: - Rock Journey Presentation (____%)

Shelfwork: Show All Work. Explore work is to be checked against the control and then marked complete. Complete individually unless noted with a "G"

Lesson	Explore	Expand	Extend
❑ Rock Cycle Video Homework ❑ Check In 1/23	☐ Rock Cycle Domino Card Sort (G) (___✓, M, 0)	☐ Rock Journey Project (____%)	❑ Rock Cycle Foldable(____%) ☐ Ask a Rock or Ask an Ice Core Station #4(____%)
Work plan: Time Estimate:			
What is a function Video ❑ Check In 1/24	☐ 4.1 Relations and functions (G) (___✓, M, 0) ☐ What did the baby porcupine say when it backed into a cactus? (___✓, M, 0)	☐ Exercises (#'s 1-14)(____%)	☐ Create AND teach a green product card (use Extend rubric)(____%) **OR** ☐ Choice Apply, p. 187, or p. 199, or p. 211 (____%)
Work plan: Time Estimate:			
❑ Writing and Evaluating Functions Video ❑ Check In 1/24	☐ Evaluating functions worksheet (G) (___✓, M, 0) ☐ Inputs and outputs Versatile (___✓, M, 0)	☐ Purple book p. 197-198 (____%)	☐ Create AND teach a green product card (use Extend rubric (____%) **OR** ☐ Choice Apply, p. 187, or p. 199, or p. 211 (____%)
Work plan: Time Estimate:			
❑ Function tables and graphs Video ❑ Check In 1/25	☐ Functions as Inputs and Outputs worksheet (G) (___✓, M, 0) ☐ Why did Zorna pour ketchup on her brother's hand? (___✓, M, 0)	☐ Functions and Relations – *Graphing* (____%)	☐ Create AND teach a green product card (use Extend rubric (____%) **OR** ☐ Choice Apply, p. 187, or p. 199, or p. 211 (____%)
Work plan: Time Estimate:			

Homework: (*All assignments are to be done independently and are due the next day unless noted*):

- ☐ Monday 1/15: No School. Martin Luther King Jr. Holiday
- ☐ Tuesday 1/16: Relax, eat a good dinner and get to sleep early
- ☐ Wednesday 1/17: Relax, eat a good dinner and get to sleep early
- ☐ Thursday 1/18: **Rock Cycle video** on EdPuzzle with guided notes (Check in on Tuesday the 23rd)
- ☐ Friday 1/19: Review and organize binder and complete missing work as needed
- ☐ Monday 1/22: Teacher Work Day (No school)
- ☐ Tuesday 1/23: **What is a Function** AND **Writing and Evaluating Functions** on EdPuzzle with guided notes
- ☐ Wednesday 1/24: **Function tables and graphs** on EdPuzzle with guided notes
- ☐ Thursday 1/25: **Plate Tectonics Video** on EdPuzzle Video with guided notes (check in on Monday)
- ☐ Friday 1/26: Review and organize (Math and Science) and/or complete missing assignments

Lesson Requests:

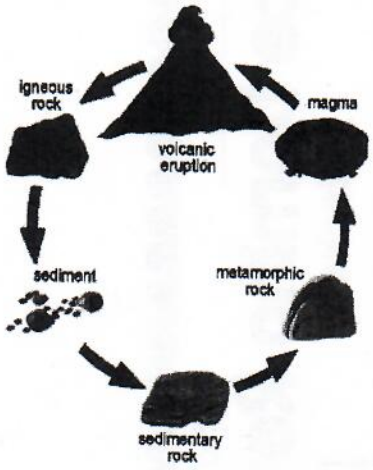
- ❑ _____
- ❑ _____
- ❑ _____
- ❑ _____
- ❑ _____

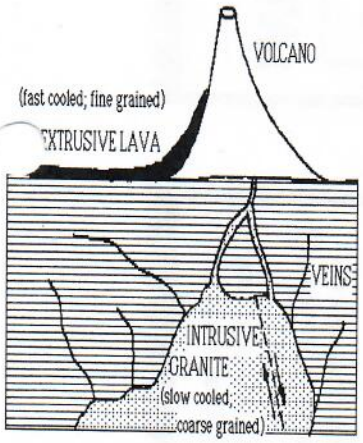
Notes and formulas:

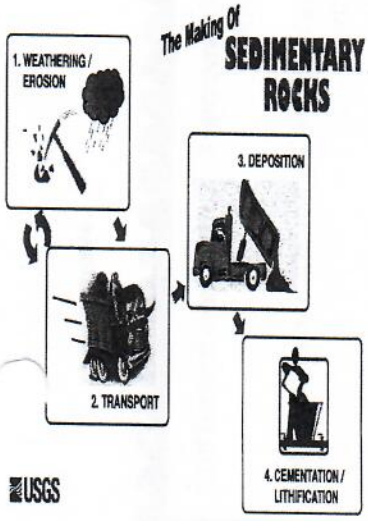
Name:_____ Unit:_____
Date:_____

Rock Cycle Guided Notes

Cues:







Rock Classification:

- A rock is any solid mass of _____ that occur naturally as a part of our planet.
- Rocks can be composed of just one mineral, or they can be made of a _____ of minerals.
- Rocks are classified into 3 groups based on HOW THEY _____
- The 3 major rock types are:

1. Igneous Rocks 2. Sedimentary Rocks 3. Metamorphic Rocks

- All of the energy for Earth's rock cycle comes from _____ inside the Earth and the Sun's heat and _____.

Igneous Rocks:

- Energy source=Earth's interior
- Formed as _____ cools
- Magma=below earth's surface
- Lava=on earth's surface (rocks form when lava cools)
- Intrusive (IN) vs. Extrusive (OUT)
- Fine Grained: Form when magma cools at a _____ rate
- Course Grained: Form when magma cools slowly

Sedimentary Rocks:

- Sun's heat and light are energy source for sedimentary rocks
- Order of Formation:

1. Weathering 2. Erosion 3. Deposition 4. Compaction 5. Cementation

- _____ away of materials
- Physical (Mechanical) and Chemical
- Factors affecting:

1. Amount of rock exposed
2. Climate
3. _____ Composition

Metamorphic Rocks:

- Energy source=Earth's interior
- Formed when existing rocks are changed by heat and _____ deep within Earth

The Rock Cycle:

1. Magma _____and crystallizes to form IGNEOUS rock
2. Igneous rock undergoes weathering to form sediment.
3. The sediment then becomes _____ and is then transported and deposited.
4. The deposited sediments are then compacted and cemented together to form _____ ROCK.
5. As sedimentary rock is buried under more and more sediment, the heat and _____ of burial causes metamorphism to occur. This transforms the sedimentary rock into METAMORPHIC ROCK.
6. Metamorphic rock is buried and exposed to high temperatures that melt the rock, turning it back into MAGMA and the rock cycles starts all over.

Name: _____ Date: _____

Science Domino Review:

Rocks

Directions: Record your answers below after completing the Domino Review Activity.

1. Rock - _____
2. Rock Cycle - _____
3. Mineral - _____
4. Igneous Rock - _____
5. Sedimentary Rock - _____
6. Metamorphic Rock - _____
7. Intrusive - _____
8. Extrusive - _____
9. Sediments - _____
10. Texture - _____
11. Geologist - _____
12. True or False? – All rocks follow the same path through the rock cycle.
13. True or False? – A rock's grain size, shape, and pattern can be used to identify the rock.

14. Igneous, Sedimentary, or Metamorphic? – Sandstone is formed from the cementing of grains of sand.
15. Igneous, Sedimentary, or Metamorphic? – Basalt is formed from the cooling and hardening of lava.
16. Igneous, Sedimentary, or Metamorphic? – Gneiss is formed from extreme heat and pressure.
17. List an example of an igneous rock.
18. List an example of a sedimentary rock.
19. List an example of a metamorphic rock.
20. Identify a use for an igneous rock.
21. Identify a use for a sedimentary rock.
22. Identify a use for a metamorphic rock.
23. Identify the 3 types of rocks.
24. Identify 3 ways rocks can be classified.
25. All rocks originally come from what material?
26. What 2 factors drive the processes of the rock cycle?

Name _____

Math 8: What is a Function?

Directions: Fill in the blanks below as you watch the video.

What is a function?

- A function is a relation that relates each x value with _____ y value.
- In other words, the x's _____ repeat!

Example: {(-2, 1), (0, 3), (3, 6), (-5, -2)}

Is this relation a function? _____

Are the relations below functions?

2.

x	y
4	-1
10	5
-4	5
3	12

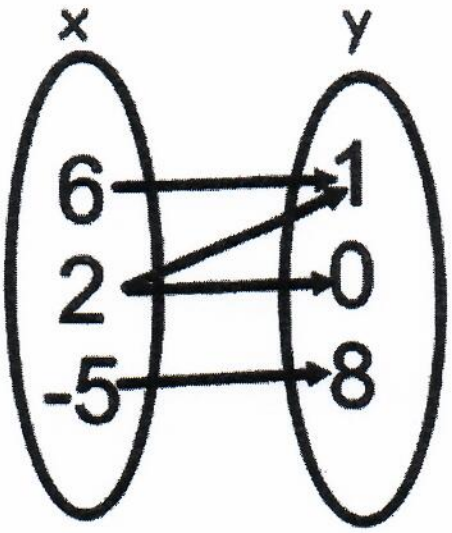
_____

You Try 2.

x	y
6	7
-1	-1
6	9
0	2

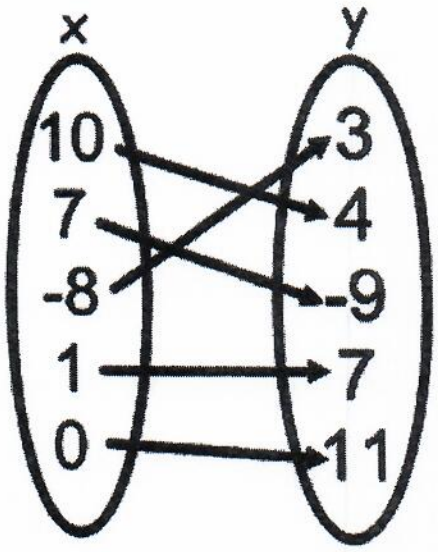
_____

3.



_____

You Try 3.



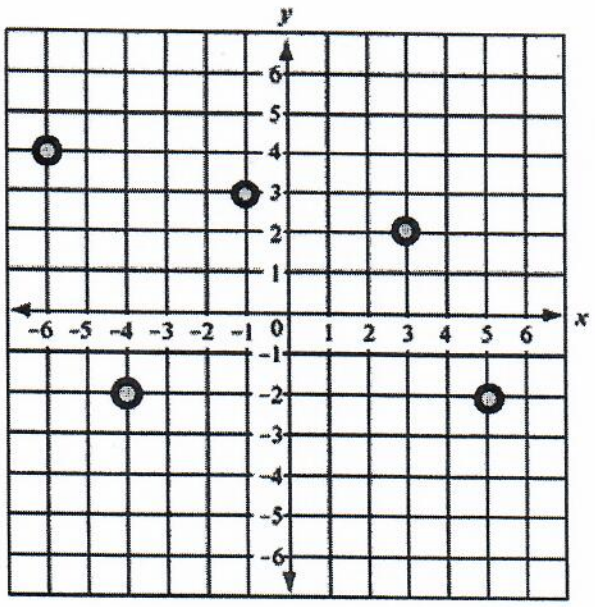
_____

Vertical Line Test:

- If a vertical line intersects the relation's graph _____ _____ one time, then the relation is NOT a function.
- If a vertical line intersects the relation's graph _____ one time, then the relation IS a function.

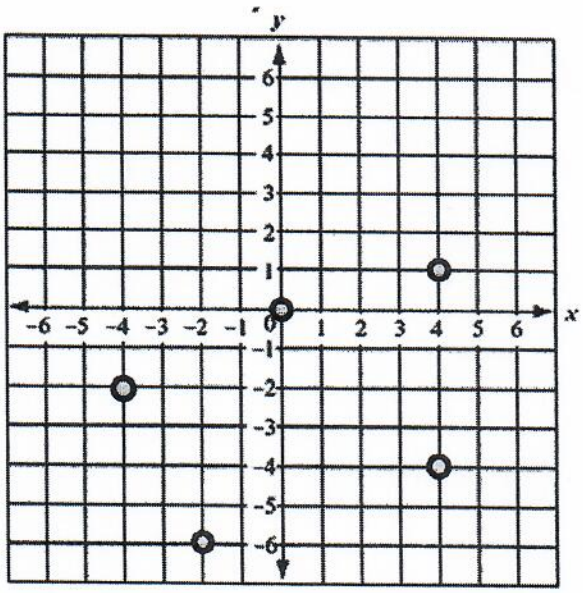
Are the relations below functions?

4.



_____

You Try 4.



_____

Name _____

Math 8: Writing and Evaluating Functions

Directions: Fill in the blanks below as you watch the video.

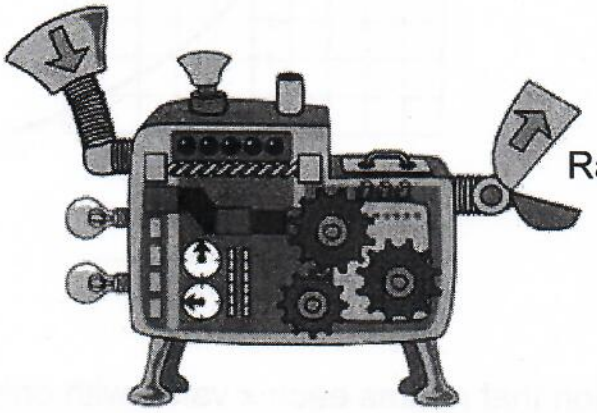
How do we write functions?

1. function notation is _____
2. read as "f of x"
3. Example: _____

Functions are like _____!

They have an _____ and an _____.

Input = _____ = ___

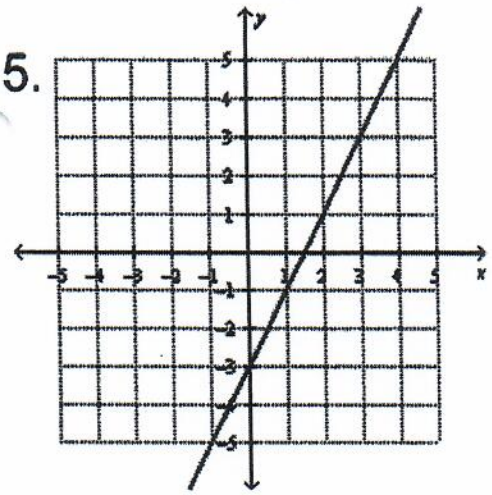


Range = _____ = _____ = ___

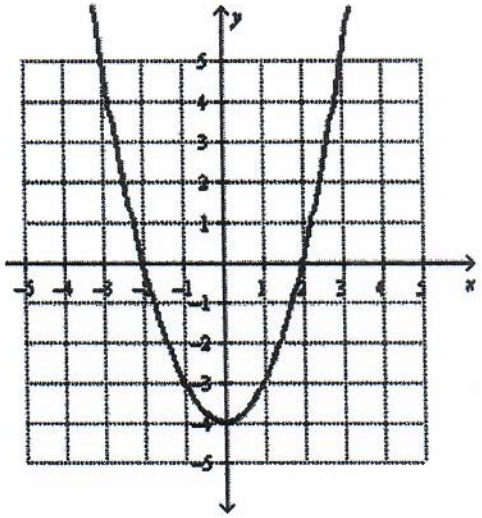
How do we evaluate functions?

- Evaluate means _____!
- We "solve" functions by substituting (plug in) an _____ (x) value into our function. Our answer is the _____ (f(x)).
- We will always be given a _____ _____ .A function rule is an _____ that establishes the relationship between the domain (input or x) and the range (output or y).

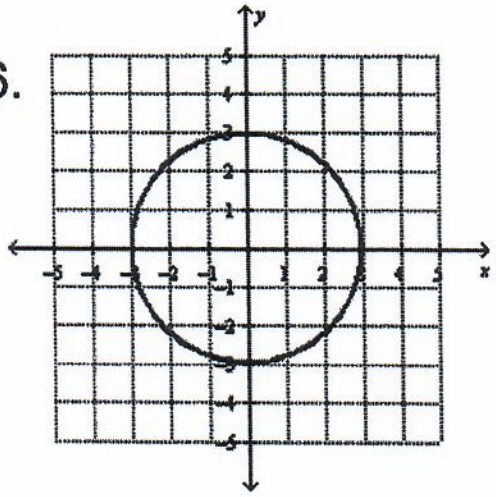
5.



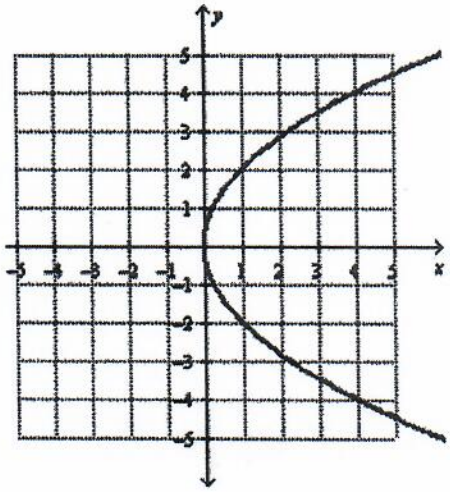
You Try 5.



6.



You Try 6.



What did we learn?

- A function is a special type of relation that relates each x value with only one y value.
- In other words, the x's DO NOT repeat!
- We can use the Vertical Line Test to determine if a graph is a function.
- If a vertical line intersects the relation's graph more than one time, then the relation is NOT a function.
- If a vertical line intersects the relation's graph only one time, then the relation IS a function.

Name _____

Math 8: Function Tables and Graphs

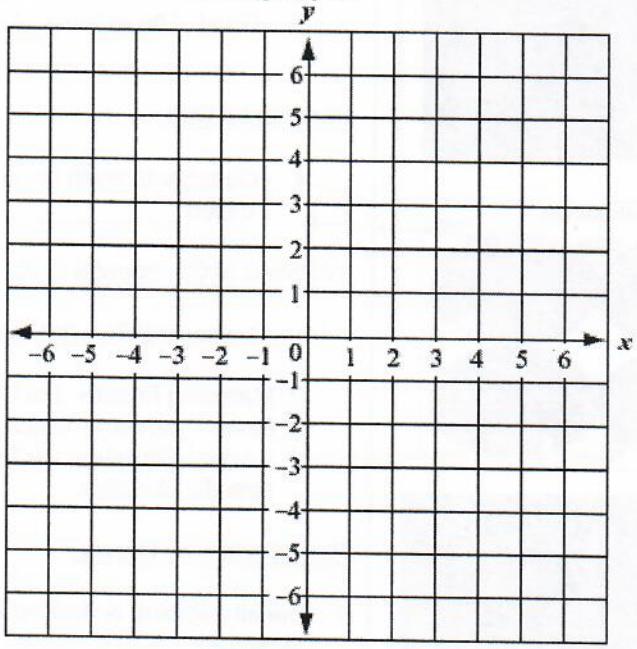
Directions: Fill in the blanks below as you watch the video.

Example #1: f(x) = x - 3

table:

x		y	(x, y)
-4			
-2			
0			
2			
4			

graph:

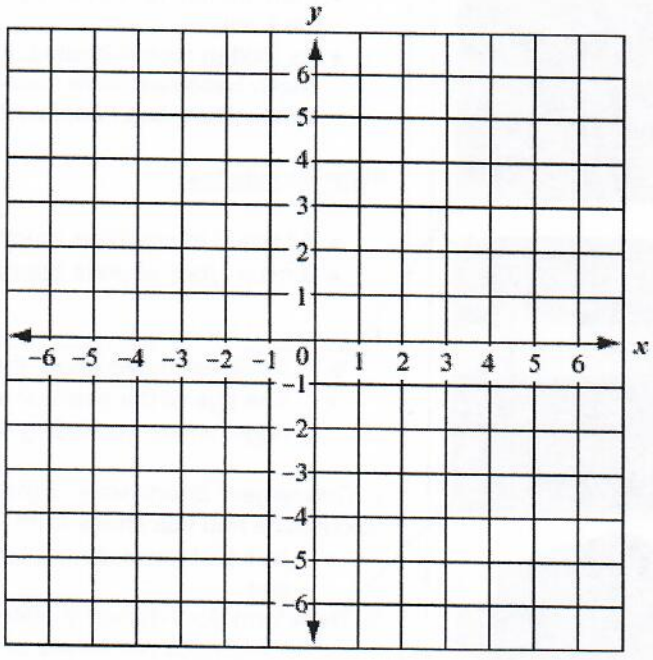


You Try!: f(x) = x / 2

table:

x		y	(x, y)
-4			
-2			
0			
2			
4			

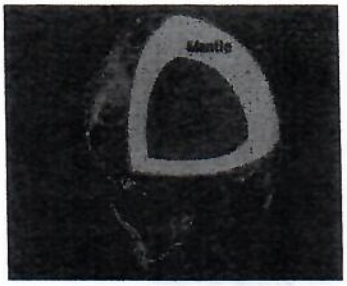
graph:

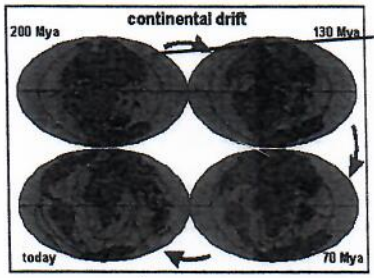


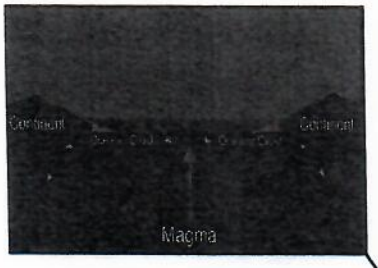
Name:_____
Community:_____

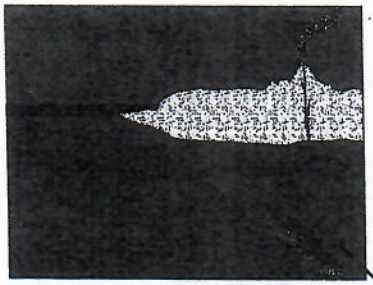
Plate Tectonic Guided Notes

Cues:









Layers of the Earth:

- The Earth is divided into _____ main layers

1. _____: Innermost layer that is divided into inner (solid) and outer core (molten rock)
2. Mantle: The middle layer that is divided into upper and lower mantle
3. Crust: The outermost layer; the layer that we _____ on

* _____=Upper Mantle & Crust

Continental Drift:

- Continents were once joined together to form one large supercontinent called _____

Evidence of Continental Drift:

1. Continental Puzzle: Continents appear to fit together because of the _____of the coastlines
2. Matching Fossils: Found matching _____ in S. America and Africa
3. Rock Types and Structures: Matching rock types and mountain belts.
4. Ancient Climates: Certain _____ found that can only grow in specific climates.

Plate Tectonics Theory:

1. The lithosphere is divided into 7 major plates and 6 smaller plates (13 total) that constantly _____ and change shape.
2. The plates move because of the unequal _____ distribution within Earth.

Convection Currents:

- Plate motion is caused by convection currents in the mantle from heat within the Earth.
- As molten rock is heated, it rises because it is less _____. It then cools, becomes more dense and _____. This change in t temperature and density causes the currents.

Plate Boundaries:

- All major interactions among individual plates occur along their boundaries
- 3 main types of plate boundaries:

1. _____ : 2 plates move apart
   - As plates move apart, the seafloor spreads and _____
   - The age of the seafloor is _____ at the mid ocean ridge, where spreading starts, and gets older as you move away

2. Convergent Boundaries: 2 plates move together (crust _____)
-Mountains and volcanoes form
   - Subduction: Heavier plate _____ below less dense plate and _____
3. Transform Boundaries: 2 plates grind past each other (_____ occur) and does not create or destroy crust.