

***Destructive & Constructive Forces Newsletter***

***Volume 1***

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Dear Parents,

The purpose of this newsletter is to give you an overview of what your child will be learning during our current unit of study in science. Please take a moment to look over the different sections of this newsletter. You will see example questions, important terms to know, and some extension activities you can do at home.

**Parent Background:**

Evidence of a changing Earth’s surface is all around us. Forces primarily at the surface and below the surface shape the Earth as we see it. While changes are visible to us, the process of the change is not. Change is very slow or invisible below the Earth’s crust. Most students may be able to understand descriptions of land forms but have no idea of how those forms came to be or how they will change.

*MCNA01832_0000[1]*Land forms are the result of constructive and destructive forces. Constructive forces are the building up of the Earth’s surface including deposition, Earthquakes, volcanoes, and faults. Destructive forces are the tearing down of the Earth’s surface including weather, erosion, impact of organisms, earthquakes, and volcanoes. These changes, both constructive and destructive, may be slow due to processes such as erosion and weathering while other processes such as landslides, volcanic eruptions, and earthquakes are fast.

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| *Students will know…*   |  |  |  | | --- | --- | --- | | Individual Highlights*:* | | | | Inside Story – 2 | Inside Story – 4 | Inside Story – 6 | | Inside Story – 3 | Inside Story – 5 | Back Story – 8 |   Special Interest Articles:   * Add a highlight your point of interest here. * Add a highlight your point of interest here. * Add a highlight your point of interest here. * **Earth process vocabulary** * **the result of various forces acting on the Earth’s surface** * **how Earth’s materials change slowly over time** * **how constructive processes cause surface feature changes** * **how erosion shapes the Earth’s surface** * **ways in which destructive processes cause surface feature changes** * **how wind and water cause weathering of rocks**   Ways Parents Can Help | *Students will be able to…*   * **identify constructive processes which cause the surface features of the earth to change** * **identify destructive processes which cause the surface features of the earth to change** * **use seismological records to determine the locations of earthquakes and explain how this information helps with the understanding of destructive and constructive forces** * **explain the reasons why human interaction and increased technological services are necessary for controlling destructive and constructive forces;** * **show locations of earthquakes and volcanoes** * **use models to demonstrate constructive and destructive forces** |

**Things you can do with your 5th grader…**

1) Go to <https://www.planetseed.com/node/93124> for some incredible information and photographs from volcanic eruptions.

2) Interact with plates boundaries at

<http://www.learner.org/interactives/dynamicearth/plate.html>

3) Read *The Magic School Bus – Blow Its Top by Joanna Cole*

*4)* Visit<http://www.geology.sdsu.edu/how_volcanoes_work/>

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*Students will be able to:*

* **Use fractions, decimals, & percents interchangeably**
* **Order and compare rational numbers**
* **Operate with fractions, decimals, and percents**
* **Find the absolute value of numbers**
* **Add, subtract, multiply, & divide integers**
* **Use ratios to compare quantities and solve problems**

**Examples:**

1. Perform the indicated operations. Write your answers in simplified fractional form and then in equivalent decimal and percent forms.

a. Add: 3+ 1  b. Subtract: 4 - 3

c. Multiply 5x 2 d. Divide:   

2. Jamil completed 82% of the problems assigned. Patrice finished 7/8 of the problems. Lamar did 17 out of 20 problems. Who did the most?

3. Write a math expression you would use to represent each situation.

a. What is the area of a rectangular plot that is ¾ mile long and ½ mile wide?

b. How many glasses of water can you pour from 4/5 of a jug if 1/10 of a jug will fill 1 glass?

4. You treated your mother to lunch for her birthday. You paid $5.45 for her lunch and $4.85 for your lunch. If you left a 15% tip, how much did you pay altogether?

5. In a survey on favorite fruits, 18 people chose apples, 12 chose oranges, and 10 picked pears. What percent preferred pears?

6. Roger’s mother baked banana bread. His sister took ¼ of the loaf to eat with her lunch. Roger’s mother left a note for Roger saying that he could eat 1/3 of what was left. Roger did what the note said. How much of the loaf of banana bread was left after Roger ate his portion?

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| **constructive process** | Mesquite_Sand_Dunes | the building up of the Earth’s surface including deposition, Earthquakes, volcanoes, and faults |
| **deposition:** | Sand_dune_formation | deposits of material which is added to a landform |
| **destructive process** | volcano diagram | the tearing down of the Earth’s surface including weather, erosion, impact of organisms, earthquakes, and volcanoes |
| **earthquake** | earthquake2 | underground movements in the Earth’s crust that may cause change in the lithosphere |
| **erosion** | erosion%20picture%201a | movement of material by water or wind |
| **fault** | sanandreas fault line | deep crack in the Earth’s surface where plates slide against each other |
| **volcano** | lava flow2 | the escape of hot, molten rock and gas from the earth’s interior |

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Question:

What did one mountain say to the other mountain after the earthquake?

Answer:

***“It wasn’t my fault!”***

Earthy Entertainment

**Sample Test Prep Question #1**

Which of these is most likely to cause a new island to form in the

middle of an ocean?

**A** glaciers

**B** earthquakes

**C** ocean currents

**D** volcanic eruptions\*



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**Sample Test Prep Question #2**

Sand Dunes in the desert are caused by erosion from

A rain

B wind\*

C streams

D glacier