**Answer Key: Earthquakes – Background Knowledge on Fault Motion**

Name(s) All names in your group Date: 10/29/12 - 30th Period:

**Expectations/Criteria**

|  |  |  |
| --- | --- | --- |
| **Exemplary +** | **Proficient ☑** | **In-Progress (IP)** |
| Proficient +* **Scientific terms** (see “Other Vocabulary” below) used to accurately answer 90% +
 | * Records answers for all 4 types of faults
* Answers all 15 questions with 80%+
* Answers are in own words
 | Meets fewer than 3 of proficient criteria |

**Assignment:**

Please go to the Earthquake page on msbrownclass.weebly.com

Under “Lessons” select “Fault Motion”

If using Google Drive, make a copy of this form, and then share it with your partner so both of you can access the form.

**Directions:**

Partner work- watch, read and discuss together

For each of the different fault motions:

* Start/watch the animation
* Read the supporting descriptions
* **Discuss** the questions and **record** the answer that you agree on



**Dip-Slip Faults**

**A. Normal Fault**

1. If you saw this type of fault happen, what would it look like, how would you describe it? *In a normal fault, which is a type of Dip-Slip Fault, the “block” of Earth... above the fault moves down compared to the “block” of Earth below the fault. If I were walking across the Earth when I came to the part that had slipped, it would look a big step down, or maybe like a cliff, depending on how much it had “dipped and slipped.”*
2. What causes this type of fault? *A normal fault is caused by...* ***tension forces****, which can be a stretching and pulling of the Earth’s crust, and thins the rock in the middle.*
3. What does the word “extension” mean as applies to this fault? *For faults, the term extension means... that the Earth is actually being stretched, it pulls the Earth apart and thins it where it is being pulled.*
4. What are other names for this type of fault? *Other names for a “normal” fault are... normal-slip fault, tensional fault or gravity fault.*



**B. Reverse Fault**

1. If you saw this type of fault happen, what would it look like, how would you describe it? *A reverse fault is a type of Dip-Slip Fault, and . . . the “block” of Earth above the fault moves UP. If I were walking it would look like a big chunk of Earth rose out of the Earth and made a hill or a wall of rock in front of me.*
2. What causes this type of fault? *A reverse fault is caused by . . . compression forces which push the crust of the Earth together.*
3. What does the word “shortening” mean as applies to this fault? *For faults, the term shortening means . . . that the crust of the Earth is being pushed together and it is getting shorter and thicker.*
4. What are other names for this type of fault? *A reverse fault is also known as... a thrust fault, reverse-slip fault or compressional fault.*

**Strike-Slip Fault**

1. If you saw this type of fault happen, what would it look like, how would you describe it? *In a strike-slip fault, the block of Earth on the far side moves sideways rather than up or down. If I was walking along a road where this had happened it would look the road swung out to the slide, like an “S.”*
2. What causes this type of fault? *Strike-Slip Faults are caused by shearing forces. Shearing forces happen when a number of forces act on the crust from different sides.*
3. What does the words “left lateral” and “right lateral” apply to a Strike-Slip Fault? *A lateral move means that the Earth is moving to the side, to the right or to the left. If the block moves to the left it’s a “left lateral,” if it moves to the right it’s a “right lateral.”*
4. What are other names for this type of fault? *transcurrent fault, lateral fault, tear fault or wrench fault.*

**Oblique-Slip Fault**

1. If you saw this type of fault happen, what would it look like, how would you describe it? *The Earth’s crust is moving in multiple directions. So it’s either moving up and down, or right or left; in other words, it is doing a “shearing” and a “lateral” motion.*
2. What causes this type of fault? *Both shearing and compressing are happening in an Oblique-Slip Fault.*

**Other Vocabulary . . .**

*Review these terms and properly use them in your descriptions above to move towards “Exemplary.”*

**Strike**: the horizontal line along the direction of a fault plane.

**Dip**: the angle between the fault plane and the horizontal.

**Hanging wall**: the block of Earth crust above the fault plane

**Foot wall:** the block of Earth crust below the fault plane.

**Graben**: the valley that is formed as one block drops down.

**Horst:** the hill that forms as one block moves up.