**Landslide Activity Worksheet**

**Group #\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Length of hill: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Height of hill: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Formula used: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Slope Angle: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Trial with Sand

|  |  |  |  |
| --- | --- | --- | --- |
| Trial | Trial 1  Sand | Trial 2  Sand + Earthquake | Trial 3  Sand + Water |
| Distance travelled by landslide |  |  |  |
| Number of houses affected |  |  |  |

Trial with Gravel

|  |  |  |  |
| --- | --- | --- | --- |
| Trial | Trial 1  Gravel | Trial 2  Gravel + Earthquake | Trial 3  Gravel + Water |
| Distance travelled by landslide |  |  |  |
| Number of houses affected |  |  |  |

Trial with Lava Rock

|  |  |  |  |
| --- | --- | --- | --- |
| Trial | Trial 1  Lava Rock | Trial 2  Lava Rock + Earthquake | Trial 3  Lava Rock + Water |
| Distance travelled by landslide |  |  |  |
| Number of houses affected |  |  |  |

Trial with material combination

|  |  |  |  |
| --- | --- | --- | --- |
| Trial | Trial 1  Material combination | Trial 2  Material combination + Earthquake | Trial 3  Material Combination + Water |
| Distance travelled by landslide |  |  |  |
| Number of houses affected |  |  |  |

Discussion Questions:

1. In terms of structure and function, how did the steepness of the hill make a difference in the damage of the landslides?
2. How did the addition of water make a difference in the severity of the landslide damage? Consider this in terms of energy and matter flow.
3. Research online the closest landslide to your school on: www.oregongeology.org/sub/slido/ Can you provide a reason why certain regions of Oregon are prone to landslide using your knowledge of Oregon’s landscapes and weather patterns?
4. Which material caused the worst landslides?
5. Which landslide scenario (rainfall or earthquake) caused the most damage? Support this with evidence using the area of the bin that was affected.
6. Consider other causes of landslides, what effect do you predict they would have on the area?
7. How can a model help us understand real landslides?
8. Describe in your own words which parts of the model are stable and which are affected by changes, such as erosion and weathering, over time?