**Weathering and Erosion Online Activity**

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| Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_  **OVERVIEW:** This activity will help you learn more about the processes and causes of weathering and erosion and how they shape the earth’s surface. There will be several websites for you to click on and a few animations to watch that demonstrate these processes.  **LEARNING OBJECTIVES:**  **Students will be able to:**   * Differentiate and describe the processes of weathering and erosion * Differentiate and describe the processes of mechanical and chemical weathering * Model the process of mechanical and chemical weathering, drawing conclusions from their results * Determine which environments and climates are most likely to promote different types of weathering and erosion * Describe various human attempts to limit erosion   **DIRECTIONS:**  **1. After watching the video clip from NATURE, “Violent Hawaii” (**www.pbslearningmedia.org/resource/nat08.earth.geol.eros.cliffs/nature-hawaiian-coastal-cliffs/)**,** **answer the following questions:**  **Clip 1: Hawaiian Coastal Cliffs**   1. Why couldn’t these cliffs have been created by wave erosion? 2. What geologic feature offers clues that the cliffs were been formed by massive landslides? 3. What might have caused the landslides?   **Clip 2: Water Erosion:**  **After watching the video clip from NATURE, “Violent Hawaii” (**www.pbslearningmedia.org/resource/nat08.earth.geol.eros.erosion/nature-water-erosion/)**,** **answer the following questions:**   1. Why might heavy rainfall accelerate erosion? 2. Is the steel mesh being draped across the hillside intended to prevent weathering or erosion? 3. What other types of erosion management can you think of?   **2. Make sure the volume is turned OFF on your computer and go to the website** <http://www.kineticcity.com/mindgames/warper/>. Here you will see 4-5 scenarios regarding the processes of weathering and erosion. Watch the animations and then click on “Learn More”. List and describe 4 forces of erosion here:  **3. Now click on this link** <http://ees.as.uky.edu/sites/default/files/elearning/module07swf.swf> and study the animations for Weathering and Climate and answer the following questions: 1. Describe the differences between mechanical and chemical weathering.  2. How does the process of frost wedging contribute to the weathering of rock?  3. What is exfoliation and what types of rock is it most common in?  4. In what regions does thermal expansion occur most often?  5. How does crystal growth contribute to mechanical weathering?  6. Click on the “Grow” button. How does tree root growth contribute to mechanical weathering?  7. Where would you go if you wanted to see abrasion at work? How does this process contribute to mechanical weathering?  8. What else do you think might abrade rock besides sediments? |
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