

WebQuest: Using animations to explain geo-physical processes

- **Directions:** This assignment will require you to analyze advanced animation of various geo-physical processes, including the formation of rivers, valleys, and glaciers as well as shifting plate tectonics (often resulting in earthquakes!).
 - 1) Go to: <http://www.school-portal.co.uk/GroupHomepage.asp?GroupID=12426>
 - 2) The following major topics are listed as links on the top left column :
 - [Animated Coasts](#)
 - [Animated Rivers](#)
 - [Animated Glaciers](#)
 - [Animated Plate Tectonics](#)
 - [Animated Soils](#)
 - 3) Answer the following questions for each topic in complete sentences:
 - **Animated coasts--Questions:**
 - 1. How do splits and salt marshes form?
 - 2. What does coast erosion create?
 - 3. How are the shapes of cliffs formed?
 - 4. How do winds shape coastal sand dunes?

- **Animated rivers—Questions:**

- 1. How do rivers transport “loads”?
- 2. How are v-shaped valleys and interlocking spurs formed?
- 3. How are gorges formed?
- 4. What are the features of floodplains?

- **Animated glaciers--Questions:**

- 1. How do glaciers flow?
- 2. Describe the movement of ice within large polar glaciers such as those in Antarctica or Greenland.

- **Animated plate tectonics—Questions:**

- 1. How can rift valleys eventually lead to the development of new oceans?
- 2. How do convectional currents in the mantle drive surface crustal plate movements?
- 3. Describe the formation of earthquakes and volcanic activity.
- 4. What happens when lava enters cold sea water?
- 5. Describe how island arcs, such as the Aleutian Islands or the Japanese islands, form where a subduction zone forms between two oceanic crustal plates.
- 6. How do collision zones occur when two continents meet at a destructive plate margin, leading to major mountain ranges such as the Himalayas.

- **Animated soil—Questions**

- 1. What is soil?