**Weathering/Erosion/Deposition Inventory**

**Weather**

1. The difference between weathering and erosion.
2. Types of physical weathering
3. Types of chemical weathering
4. Describe the conditions which causes the most **rapid rate** of weathering for each of the variables shown below:
   1. Amount of rock exposed
   2. Size of rock fragment
   3. Mineral which makes up the rock
5. Give examples of rocks slow to weather (**more resistant**)
6. How are the lithosphere, hydrosphere, and atmosphere involved in weathering?
7. What type of rock is most affected by acids? (**chemical weathering**)
8. Define a soil horizon and create a profile using the following terms:

Bedrock / Humus / Subsoil / Topsoil / Partially weathered bedrock

1. Note on the above profile where :

Porosity and Permeability are greater

Organic materials accumulate

Living organisms thrive and what type of organisms

1. What is the difference between **Residual and Transported Soils** and what type of evidence is used to support the classification.

**Erosion/Deposition**

1. List different types of erosional agents.
2. Be able to calculate the **Gradient** of a river. The formula is?
3. Determine the stream velocities needed to move different sediment sizes. (ESRT)
4. Label the parts of a river system

Delta/ Mouth/Source/Meanders/Sandbars/Tributaries/Bed/Bedload/Cutbank/

Watershed/Divide/Rapids/Floodplain/Oxbow lakes/Levees

1. Predict the erosion and deposition locations along meanders viewed from above.

How is this related to Kinetic and Potential Energy?

1. Draw streambed cross sectional shapes from your knowledge of stream velocity and erosion/deposition which is happening there. What causes erosion or deposition being the dominant factor is an area?

What is the term used if erosion and deposition are at the same rate?

1. Define the **Discharge** of a river.
2. List 3 ways a stream moves sediments along.
3. What affects the **depositional rate** of a particle?
4. What is the difference between **Horizontal and Vertical Sorting?** Which would represent **Graded Bedding**?
5. What shape valleys do Glaciers leave behind? What kind of deposition?
6. How does Wind affect Erosion and Deposition?

1. How do **Ocean Waves and Currents** affect Erosion and Deposition?
2. What role does **Gravity** play in erosion and deposition?