PHENOMENON: Video showing Himalayan Mountain formation

QUESTION: How do mountains form?

ACTIVITY/ PROCESS	OBSERVATION/ EVIDENCE/ PATTERNS	WHY?	Connection
Earth's Structures Poster (Earth Structure)	Patterns: a) Earth changes over time b) Change can be fast or slow Earth's surface has features: (OCEAN vs. LAND)	Earth's Layers (crust, mantle, core) Continental Features (Mountain, Canyon, Plateau) Ocean Features (Shelves, Trenches)	 Earth's surface is constantly changing. New features form and other features are worn away. Most of these changes are very slow. The mountain formed through a slow process over a long period of time.
Hot and Cold Water Demo (Thermal Convection)	Stayed the same COLD HOT	Heat escapes More dense SINKS Heat source RADIOACTIVE RADIOACTI	Rising of hot liquid and cooling of cool liquid in the mantle creates circular movements called thermal convection currents.
Graham Crackers and Fluff (Plate Tectonics)	1) 4 types of plate movement	 Earth's crust is in pieces (plates) Plates move (4 types of movement) Plates move because of thermal convection currents Causes volcanoes and earthquakes 	2 plates moving toward each other collide and push upwards- forms a mountain

PHENOMENON: GIF showing river changing over time.

QUESTION: How do rivers change course over time?

ACTIVITY/ PROCESS	OBSERVATION/ EVIDENCE/ PATTERNS	WHY?	Connection
Water Demos (Structure and Properties of Water)	1) Bubble/ Dome of water on penny 2) Rusting 3) Dissolves things 4) Expands when frozen	Mechanical Effects: - Deposition - Expansion (freezing) - Erosion Chemical Effects - Solubility - Melting & - Rusting freezing points	Rivers are moving water. Water affects the rocks and soil that it is running through.
Stream Table (Weathering and Erosion)	 Increasing Elevation = Increasing Erosion Moving water makes rivers a) Picks up and moves sand More erosion = Deeper rivers 	1) EROSION = movement of sediment (dirt, sand, rocks, etc) 2) WEATHERING = wearing down of Earth's surface (by wind, water, etc.) Feedback Mechanisms: Mountains Change (Buscher) SMALLEN) Mountains Change (Buscher) Mountains Change (Bu	The water in rivers picks up sand in places and deposits san in other places. This process is called erosion. Erosion is a constant factor that is always causing the banks of rivers to change. This change takes a relatively short period of time.