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Earth's History: Geologic Time Line – A Triple-layer Inquiry Activity

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Teaching in a school with little space/resources, one needs to be crafty! Primarily for secondary education, focus surrounds three aspects of Earth's History: Geologic Periods (time line can be used for primary education), Evolution of Organisms, and Major Geologic Events. Students use vocabulary and picture cards to assemble a timeline. Layers begin with geologic periods as students are placed in groups, given a parcel of cards, and deduce what order cards go in their section. After all groups are complete cross analyzation of teams' hypothesis occurs. Goal: correctly arrange geologic periods. Mini lesson follows all three activities and lesson closure uses acquired knowledge to finalize for next phase of inquiry. The second activity incorporates colored picture cards with organisms. Each group begins at desk and attempts placement in order of evolution on Earth. Goal: groups approach time line with built in "marker" organisms attempting to place cards in order of evolution on Earth. Last activity includes cards for major geologic events in Earth's history. Goal: independently with each student receiving up to two cards.

Key Standards: Geologic Time: Mapped by Rock Layers/Major Events; Evolution of Organisms: Simple to Complex; Pressure to Survive: Natural Selection/Adaptation from Geologic Events

Worksheets: Earth's Time Line; Lucy in the Sky with Diamonds; Chicken or the Egg?; Geological Events; Extension - New York State Earth Science Reference Table: Geologic Time (optional)

Culmination: Power Point Presentation/Poster/Essay (differentiation) focusing on top three aspects in each section; Student Gallery Walk (in school), Parent and Administrator Gallery Walk (Parent Teacher Conferences, after school)