"Buried Treasure"

LAB CRAWL 2007 CORE SAMPLE ACTIVITY #2

Summer 2007

Core Sample Activity #2

Map of Antarctica
©National Maritime Museum

There is a general relationship between the depth of a layer of material in a core sample and the age of that material. This activity is designed to highlight that relationship by relating distance measurements in a core to a geological time in the past.

Each student group will receive one half of pre-made core sample A. To construct Core B: **1.** place a layer approx. 3 cm deep into the bottom of an empty Play-doh container that has been lined with plastic wrap. This layer contains mixed in glitter of one color.

2. After pressing the first layer down into the container as firmly as possible, add a second layer of the same color Play-doh. This layer contains 2 colors of glitter: the original and now a 2nd color glitter as well. Press down firmly, especially along the outside edge.

3. The next layer (layer 3) is done the same way, but has iron filings mixed in with the other 2 colors of glitter.

4. Above layer 3, place a thin layer of Play-doh that is a different color. This layer represents some sort of mass extinction event (meteor impact, volcano, etc.)

5. Above the extinction layer, make a last layer, of original Play-doh color, but containing NO FOSSILS (glitter or filings).

Sample B

Processing Directions:

Students are to measure from the top of the core downwards to the earliest appearance of the fossil (glitter or iron filings). Record the heights onto the data table. Using those measurements, accurately draw and color sample B onto the data sheet.

Time Scale Directions:

Time scale is to be set-up the same way as was done in activity #1. Students are to use the following information :

MATERIALS

- PRE-MADE PLAY-DOH CORE SAMPLES
- WIRE
- RULERS
- WORKSHEETS

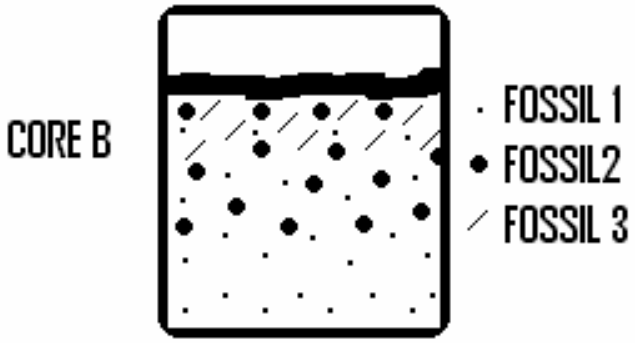
S.S.S. Science Addressed:

SC.A.1.3

SC.D.1.3
2.3

SC.G.1.3
2.3

SC.H.1.3
2.3
3.3



Core Layer Data:

Sample B Fossilized Remains	Distance from top of core to EARLIEST appearance material (mm)
Blue Glitter	
Red Glitter	
Thin Iron Rods	

SCALE

CORE SAMPLE B

Conclusion Questions:

1. How would you describe the history of the location where this core sample was taken?

2. Can you name an actual situations in the Earth's past that would produce a core sample that looked similar to this sample?

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