VIRTUAL FOSSIL LAB

goo.gl/u8Xc2x

1. Begin at **DIG SITE 2**. Click "**reset**" until you are on the correct dig site.
2. Drag a **nail** over each rock layer to label it.
3. Use the **magnifying glass** to search for fossils. Search **slowly**. You will only find fossils in layers 1 and 3 because these are sedimentary rock layers. There are no fossils in the igneous rock layers.
4. **Draw ONE of the fossils in layer 1** **Draw ONE of the fossils in layer 3**

5. Click on the **computer** and view the **field guide.** Identify your two fossils.
   Fossil in layer 1 _____ Fossil in layer 3 _____
6. Use the **hammer** to take a rock sample from each layer. They will go into the box.
7. Drag all four samples to the **driver side window** of the jeep. Then click on the windshield. She will drive your samples to the lab and email you the results.
8. Click on the computer and check your **email.** Click **NEXT** and view the radiometric analysis results.
9. Each sample will be analyzed for a different radioactive isotope, and the half-life of the isotope will be given in millions of years.

Rock Sample Layer 2			Rock Sample Layer 4	
☐ million years	= Half-life of isotope		☐ million years	= Half-life of isotope
x ☐	= Number half-lives		x ☐	= Number half-lives
= ☐ million years	= Age of rock sample 2		= ☐ million years	= Age of rock sample 4

10. Record the **half-life** on the **table to the right.**
11. Read the graph on the x-axis for the flashing dot. Record the number of half-lives that have passed in your sample.
12. **Multiply** the **half-life** of the isotope by the **number** of half-lives measured in your sample. This is the age of your rock sample.
13. **Repeat** for layer 4.

14. Complete the **table below.**
15. Use the chart for time periods to determine the ages of each layer.

Rock Layer	Fossil	Time period	Age of Rock Sample
1			
2			
3			
4			

Time Period Chart		
Cenozoic Quaternary	1.6	Million Years Ago
Cenozoic Tertiary	64.4	Million Years Ago
Mesozoic Cretaceous	144	Million Years Ago
Mesozoic Jurassic	208	Million Years Ago
Mesozoic Triassic	245	Million Years Ago
Paleozoic Permian	286	Million Years Ago
Paleozoic Mississippian	360	Million Years Ago
Paleozoic Devonian	408	Million Years Ago
Paleozoic Silurian	438	Million Years Ago
Paleozoic Ordovician	505	Million Years Ago
Paleozoic Cambrian	544	Million Years Ago
Precambrian	4,600	Million Years Ago

TASK 2

GO TO goo.gl/G9Xp69

1. Login to the Brain Pop website: **username: lavergne** **password: school**
2. Paste the **graphic organizer** into your **notebook**. Complete the graphic organizer as you watch the video.

MATCHING **Draw a line connecting each type of fossil to the appropriate description.**

MOLD	•	• A triceratops uses its horns to gouge a chunk out of a log. The log gets fossilized, with the gouges intact.
TRACE	•	• A prehistoric beetle falls into a pool of mud. The mud hardens around the beetle's body, which decays away.
BODY	•	• The space left behind by the beetle fills in with minerals, which harden over time into the beetle's shape.
CAST	•	• A small mammal falls into a tar pit, where it is entirely preserved.

3. Write a paragraph to explain how the different types of fossils form. Use the terms mold, cast, body fossil, and trace fossil

TASK 3

GO TO goo.gl/xLcqFS

1. Use the online lesson to **research the following questions**
2. What is the fossil record, and what has it revealed about life on Earth? Use the terms **evolution**, **species,** and **order**

3. Explain how scientists determine how old a fossil is. Use the terms **radiometric dating** and **decay.**