Define:
Absolute dating
Relative dating

Uniformitarianism
Principle of superposition
Unconformities
Fossils
Radioactive Decay
Half-life

Write the question and answer on looseleaf:

1. What is the difference between absolute dating and relative dating?

2. Why does the principle of superposition help us to know the ages of rocks?

3. How can erosion affect the geologic rock record?

4. What is correlation... and how does it help us know the ages of rocks?

5. How does absolute dating help us to know how old a rock is??

6. What radioactive isotopes are helpful for finding the ages of igneous rocks?
Define:

Absolute dating
Process of assigning a precise numerical age to an organism, object, or event

Relative dating
Process of placing object or events in their proper sequence in time.

Principle of superposition
Oldest rocks in an undisturbed sequence of rock layers are at the bottom of the sequence

Unconformities
Gaps in rock record where erosion occurred

Fossils
Remains or traces of organisms found in geologic rock record.

Radioactive Decay
Decay of a unstable radioactive element into stable element

Half-life
Amount of time it takes for half of a radioactive element to decay

Write the question and answer on looseleaf:

1. What is the difference between absolute dating and relative dating?
   Absolute dating gives an accurate age to the rock, while relative dating gives the age relative to other layers of rock.

2. Why does the principle of superposition help us to know the ages of rocks?
   The deepest layer of undisturbed sedimentary rock was deposited first, so the ages of rocks in that layer are oldest.

3. How can erosion affect the geologic rock record?
   If a layer of rock is eroded away, then there is a gap in the rock record.

4. What is correlation... and how does it help us know the ages of rocks?
   Fossils that lived for a short time may be present in rock layers of different areas. The correlation of the fossils tells us that the layers were formed around the same time in history.

5. How does absolute dating help us to know how old a rock is?
   Absolute dating uses radioactive elements that have a half life. They decay at a certain rate and we can observe how much of the elements in the rock are decayed, and know the age of the rock.

6. What radioactive isotopes are helpful for finding the ages of igneous rocks?
   Uranium, Thorium
Geologic time 5 min  Relative Dating... good 1st one
https://www.youtube.com/watch?v=pk4l-vmJiYc

Brain pop: Geologic Time Strata  3.5 min
https://www.brainpop.com/science/earthsystem/geologictime/

Brain pop: Carbon 14 dating 3 min
https://www.brainpop.com/technology/scienceandindustry/carbondating/

Radiometric Dating  5 min  good 2nd one
https://www.youtube.com/watch?v=AepDyWBStqo

Radiometric Dating  7 min
https://www.youtube.com/watch?v=1920gi3swe4

How old are layers 3 and 4?

LAW OF SUPERPOSITION
A PRINCIPLE THAT STATES THAT YOUNGER ROCKS LIE ABOVE OLDER ROCKS

Feb 26-2:59 PM

Feb 24-4:16 PM
And if similar fossils are found in rock layers that formed at different locations, we can INFER that....

Location 2

Ending clip 5 min: When Dinosaurs Roamed America
https://www.youtube.com/watch?v=9v0maaOR84U
The Principle of Superposition

What's the Order of Events?

Crack in earth
Absolute Dating
Uranium and Half-life

- $T = 0$ half lives (rock crystallizes)
- $T = 1$ half life (1 billion years old)
- $T = 2$ half lives (2 billion years old)
- $T = 3$ half lives (3 billion years old)