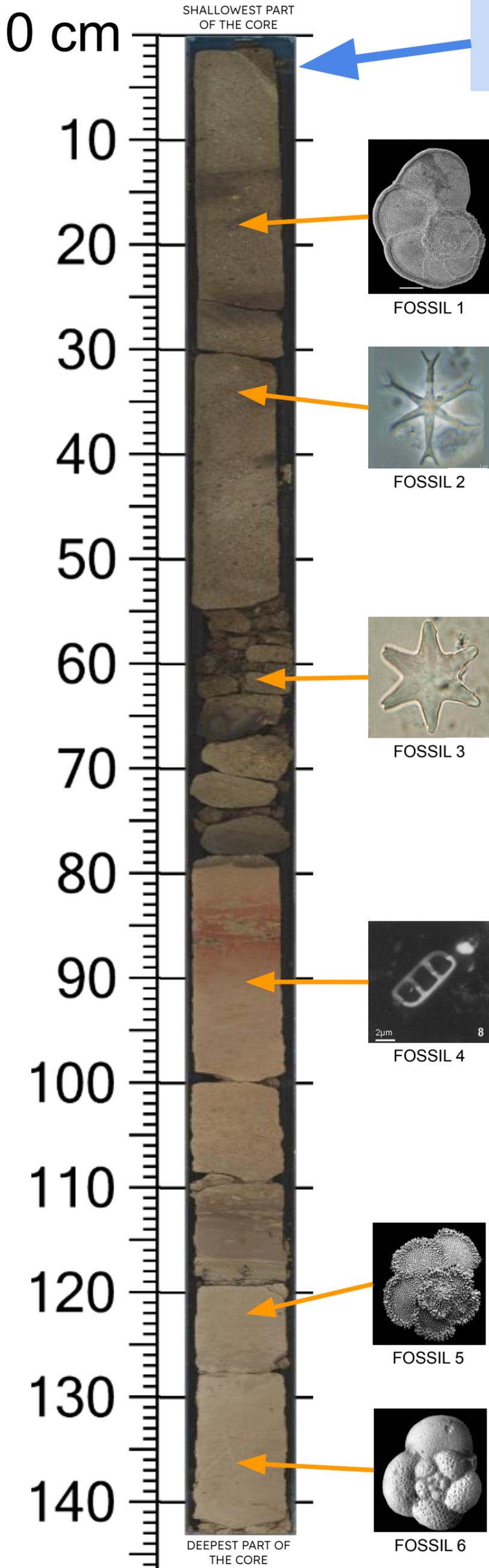
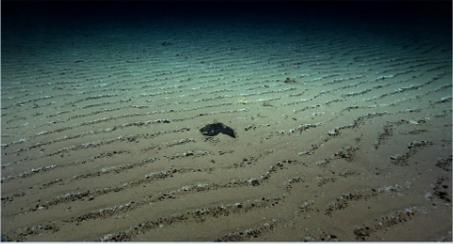


STATION 1: HOW OLD IS OLD?



This is a **SEDIMENT** core. It is made of **sand** and **clay** from the bottom of the ocean.

The sediments at the bottom of the ocean are mostly made of **small pieces of rock**, but they also have thousands of **fossils** hidden inside them.

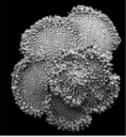
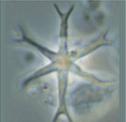
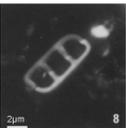


Fossils help scientists figure out the **age** of each layer of sediment, because certain fossils only lived during certain times in Earth's past.

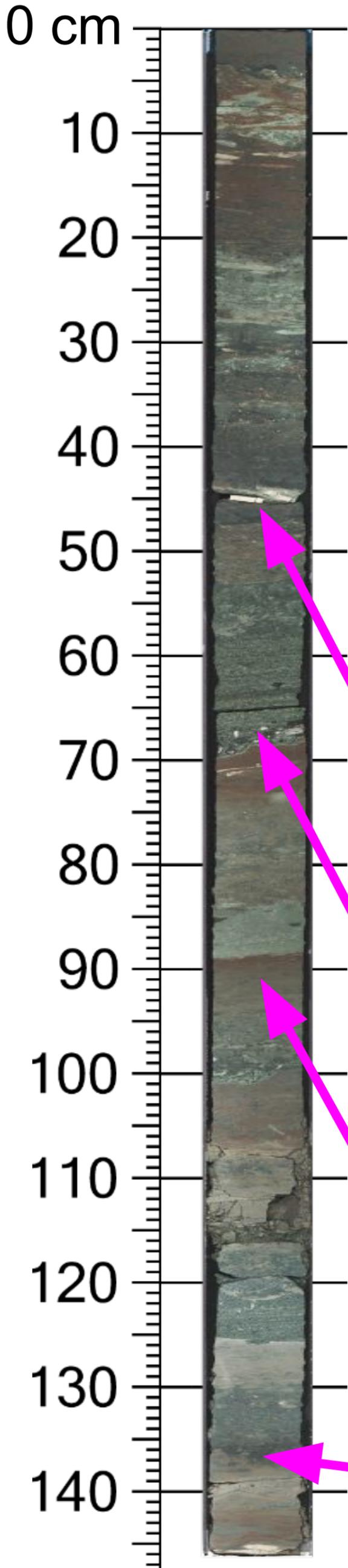


Today you are a **PALEONTOLOGIST**. It's your job to figure out the age of each layer of sediment, by matching each fossil to the correct age.



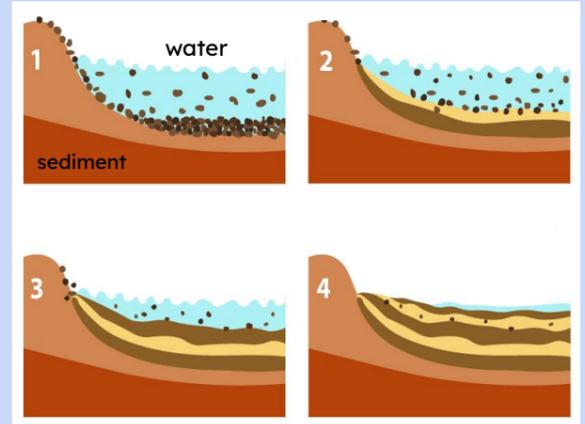
FOSSIL KEY	
	NAME: <i>Globanomalina imitata</i> AGE: 62 million years ago
	NAME: <i>Globorotalia plesiotumida</i> AGE: 9 million years ago
	NAME: <i>Morozovella formosa</i> AGE: 51 million years ago
	NAME: <i>Discoaster druggii</i> AGE: 23 million years ago
	NAME: <i>Discoaster signus</i> AGE: 16 million years ago
	NAME: <i>Isthmolithus recurvus</i> AGE: 37 million years ago

STATION 2: CREATE A CORE!



How can we find different things in just one core?

Cores are like **time** machines! First a layer forms, then over time **new layers form on top**. If you find different things on a core, it means the **ocean changed over time**. A single core can tell the story of what happened in the ocean over **millions of years!**



What do different colors mean?

White



Filled with tiny shells of dead sea creatures.

Red



Contains rusty metal. A lot of oxygen in the environment!

Green



Not much oxygen, and not many living things.

Black



Made from lava from a volcanic eruption.

Shells



Shells are **fossils**, which means they are the **remains of creatures** that lived in the ocean and then died. Scientists find shells in places where the ocean is **shallow** enough for many animals to live.



Sand



Sand is a **medium**-grained sediment, meaning it's made up of pieces of rock that are small, but still big enough to see. Scientists find sand in places where the ocean is **shallow**, like the beach.



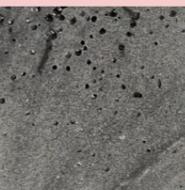
Mud



Mud is a **fine**-grained sediment, which means it's made up of **very, very small pieces of rock**. Scientists find mud in places where the ocean is very **deep** and very **calm**.



Basalt



Basalt forms when **lava** from a volcano hardens into rock. Scientists find basalt in places where there is (or was) a **volcano!**

