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ENGLISH CLASSWORK
TOPIC: The origin of life

Name: Class: Phone:

Instructions: Complete with the words:

Accumulated	Appeared	Atmosphere	Bombarded	Cambrian	Climate	Clump:	Cold
Collision	Condensate:	Cooled:	Coughed:	Covered	Crashed:	Emerged:	Evolved:
Explosion	Froze:	Frozen:	Mammals	Ordovician	Pummeled:	Reassembled:	Ruled:
Scientist	Shells:	Shifted	Shifted:	Silurian	Slammed	Slammed:	Solar system
Sparked:	Spewed Out:	Spines:	Sun	Supercontinent	Swirling Disk of Matter:	Vanished:	Waterworld:

In the past few billion years, Earth has been by asteroids, into other planets and over several times. Not to mention being by all kinds of crazy lifeforms. Sometimes it's a wonder that our blue home world has survived at all. But if we want to take a whirlwind tour of our planet's history, we'll have to start way back at the very beginning.

4.5 BILLION YEARS AGO

Some 4.5 billion years ago, our began to out of a dense cloud of **interstellar gas and dust**. This cloud into a that got hotter and hotter and hotter until hydrogen fused into helium. And just like that, our **was born**. And baby Earth was on its way too.

After the birth of our star, all the matter on the farthest ends of the spinning disk began to together. These clumps would be the seedlings for the planets and moons in our Solar System. As they more matter, they grew bigger and more spherical. Closer to the Sun, all the rocky material formed the inner planets like Mars and Earth.

This young Earth was incredibly active, volcanically speaking. It gases like hydrogen sulfide, methane and carbon dioxide. These gases made up the very first atmosphere on our planet. Early Earth was constantly by large asteroids and comets. And soon, Earth experienced an even more violent collision. Theia, a planet the size of Mars, slammed right into our young world. This epic threw of matter all around Earth's orbit, and then gravity bound them together into what we now know as the Moon.

3.8 BILLION YEARS AGO

On this hot early Earth, there were no oceans. All water existed as gas. But 3.8 billion years ago, our planet enough for water to and become liquid. The very first primitive ocean this young Earth and turned it into a H₂O is an essential ingredient for creating living things. So with all that water, life appeared on Earth about 3.7 billion years ago. These earliest forms of life were microscopic organisms. But it was nearly a billion years after that, that some of these organisms changed the course of the world.

3.3 BILLION YEARS AGO

But Earth didn't stay as a water world very long. Soon, the very first continents from the ancient ocean. Scientists call them cratons. As more and more land rose from the ocean, the very first supercontinent appeared on the planet. Vaalbara wasn't exactly a SUPERcontinent. It was pretty small. think it was smaller than the continent of Australia.

2.4 BILLION YEARS AGO

Around 2.4 billion years ago, cyanobacteria evolved to become our planet's first photosynthesizers. Finally, we had some oxygen producers to make Earth's much more hospitable. And the rest is history, folks. Just kidding. We've still got a long way to go. With all this new oxygen, Earth's atmosphere had much lower levels of carbon dioxide. And that made the planet icy Much of our young world froze over as Earth saw its first ice age. In some areas, glaciers extended all the way to the equator.

1.1 BILLION YEARS AGO

As Earth's atmosphere was changing, the continents were moving, too. They broke up and into the next supercontinent, Rodinia. Rodinia was a real supercontinent. It may have been the largest to ever cover the planet. And life? Well, life finally became more complex. But then something happened.

Rodinia broke apart, and a new supercontinent This one was called Pannotia. Then, between about 540 and 485 million years ago, there was an of new life. This time was called the Explosion. And the animals that during this period had hard body parts like or The most famous of all were the alien-looking trilobites.

440 MILLION YEARS AGO

Around 440 million years ago, the climate suddenly and the temperature of the ocean changed dramatically. Earth saw its first event. This was the extinction. And a majority of the life that had been spreading around the planet Many of these lifeforms laid the foundation for the ecosystems that we have on Earth today. Somewhere between 420 to 350 million years ago, the first trees arose from Earth's soil. And the first animals made their way to land too.

250 MILLION YEARS AGO

250 million years ago, the planet was covered by our last, vast supercontinent. Pangea. Sadly, it was also during this period that Earth witnessed the **greatest** event in our history. The Great Dying. Massive amounts of greenhouse gases and accelerated global warming wiped out about 90% of all species on Earth.

But this mass extinction helped pave the way for the next wave of animals to evolve. 240 to 230 million years ago, the first dinosaurs For the next 150 million years, they'd rule the land. If you were there, you'd have witnessed the gigantic **Sauropod Argentinosaurus**, the largest land animal ever. Or you might have been chased by one of Earth's greatest apex predators, the **T. rex**. You'd also witness **Pangea** breaking up and forming the continents we know today. You may already know where this is headed.

66 MILLION YEARS AGO

66 million years ago, an asteroid into our planet, right where Mexico sits now. It coughed so much debris into the atmosphere that it blocked out the Sun. This led to devastating changes that caused the dinosaurs die out. In the next wave of emerging animals, became more common.