

1) Guiding Questions

2) Station Review

EXPLORE 1: [LINK](#)

GUIDING QUESTION: How was Earth's early atmosphere formed?

Instructions: Use the video and images provided to complete your template!

Question 1: From which 2 sources did water come to Earth?

Water came from....

Question 2: Why was there no life on Earth in the video?

There was no life on Earth because...

Question 3: Using the chemicals I've given you, what similarities do you see in the materials that were present in early earth and later on?

Two similarities I see are that...

Question 4: What are two differences that you see?

Two differences I see are...

Question 5: Based on what you know and what you saw in the chemicals, where do NEW molecules/materials come from?

New molecules come from...

AFTER THIS STATION, I KNOW FOR SURE THAT...

I KNOW THIS BECAUSE...

EXPLORE 2: [LINK](#)

GUIDING QUESTION: How did early prehistoric life develop?

Instructions: Use the video and images provided to complete your template!

Question 1: Based on the video, what are some things that are needed for life to develop/survive?

Life needs...

Question 2: Why do scientists think that life started at the bottom of the ocean near hydrothermal vents?

Scientists think life started near hydrothermal vents because...

Question 3: In your own words, what is the difference between an autotroph and a heterotroph?

An autotroph is _____ while a heterotroph is _____.

Question 4: Based on the video and what you know, was the first organism an autotroph or a heterotroph? Why?

The first organism would have been a _____ because....

Question 5: The first organisms were probably photosynthetic, which means that they make oxygen. Why is it

AFTER THIS STATION, I KNOW FOR SURE THAT...

I KNOW THIS BECAUSE...

important that the first organisms were photosynthetic (think about life on land!)

It was important that the first organisms made oxygen because...

EXPLORE 3: [LINK](#)

GUIDING QUESTION: How did atmospheric conditions affect more complex life?

Instructions: Use the video and graph provided to complete your template!

Question 1: The geologist in the video was describing an event called “The Great Oxygenation”. What does that mean?

The great oxygenation is...

Question 2: In your own words, why is it important that early Earth developed oxygen in its atmosphere?

Early Earth needed oxygen because...

Question 3: What trends do you notice in the graph? Focus specifically around the time circled in red.

One thing I notice in the graph is that...

AFTER THIS STATION, I KNOW FOR SURE THAT...

I KNOW THIS BECAUSE...

Question 4: What trends do you notice? How are cyanobacteria and the % of oxygen related?

**One trend I see is that...
Cyanobacteria and % oxygen are related because...**

Question 5: What trends do you notice in the graph? How are new species affected by cyanobacteria and oxygen?

**One trend I see is...
The number of new species is related to cyanobacteria and oxygen because...**