

SHIELD chapter 3, One strange rock.

The Biosphere is the sum of all the ecosystems on Earth. These ecosystems form an enormous puzzle. If there is a piece missing in the puzzle the rest of the biosphere is affected. The biosphere is divided into layers.

Mention the layer that form the Biosphere

..... Water
..... Air
..... Land

Complete the text by watching the video.

Astronauts really see the sun as a star out in the space, it looks like a big ball of white light and they experience extreme temperaturedegrees in the sun and minus degrees in the shade.

The sun is so powerful that it can devastate entire planets by sending , and

We think Mars was like planet Earth but the Sun's destroyed its atmosphere and evaporated its into space. But if the Earth is even closer to the sun than Mars why aren't we ashes and dust?.. because our planet is strong on defence.

SHIELDS OF DEFENCE

Complete the text with the correct word.

furnace auroras molten radiation magnetic

- Earth core

The centre of the Earth is made ofrock, full of iron and nickel rising and falling creating a meltingwhich creates its own..... field stretching into space surrounding the entire planet deflecting the deadly..... from the sun when we see..... in the poles of the Earth, we can see the magnetic field in action.

Complete the text with the correct word.

- The ozone layer 03

creating reached rises DNA vertebrates energy sunlight oxygen

We need Light from the sun to live however ultra violet light is extremely dangerous for life because it breaks down..... and turns healthy cell into cancerous ones. If all this lightEarth there would be no life on Earth, life would be sterilized and life would be trapped under water. Luckily only 2% of this ultra violet light goes through the ozone layer protecting life on Earth

In the Earth's battle with the sun, the sun has often had the upper hand and a long time ago the ozone layer wasn't there to protect our planet.

But something new emerged three billion years ago and found a way to useto its advantage. Ancient organisms first harnessed thefrom the sun and they began producing a waste product,, and as time went by trillion of these organisms bubbled even more oxygen and when oxygen gasinto the atmosphere it transforms into protecting ozonea protecting blanket against uv light, setting the perfect condition for the first..... to leave water and live on land changing life on Earth forever.

Complete the text with the correct word.

- Water - rain

boiling oceans CO2 rain heat dissolved cycle 60 volcanoes

The sun has its final weapon to threaten life on Earth,, and its ally is here on Earth, this is....., this gas traps the sun's heat in the atmosphere and this is extremely dangerous.

On Earthhave been firing co2 in the sky for billions of years but the Earth has its unique system to stop the sun fromour planet.

An air condition system made by..... Rain is not pure water falling down, but actually

it is carrying..... carbon dioxide from the atmosphere burying it deep in the bottom of theand that helps cool down our planet.

Over time theof rains, rivers and volcanoes has helped balance the co2 in our atmosphere.

The problem now is that humans pump..... times more CO2 into our atmosphere than volcanoes and the air conditioning system can't keep up.

We must help the Earth on its fight against the sun, we have to do our bit..