Look at the questions below and match them to the correct paragraph.

1. What factors might affect what alien life looks like?

2. How does the sun affect a plant's color?

3. How big might the planet be?

4. How many planets are there?

5. What's the weather like?

6. Where might we find life in the universe?

Could plants grow in space?

Are there places other than Earth where life could exist?

A. Could plants grow in space?
We are yet to find life on other planets but that doesn't mean there isn't life out there. In fact, it is more likely that there is alien life on another planet than not. Let's start with some huge numbers. How many planets are in the universe? Do you want to make a guess?

B. _____
Earth is one of eight planets in our solar system. Our solar system with its star (we call it the Sun) is one of many in our galaxy, which is called the Milky Way. Most scientists say that our galaxy contains up to 400 billion stars. Scientists also tell us that there are 54 galaxies that are local to ours, which leads to a figure of 21.6 trillion planets in galaxies close to our own. However, these local galaxies are in something called a supercluster and there are at least 100 more of these, so you then have 2.16 quadrillion planets. But it doesn't stop there, these groups are one of a further 10 million superclusters we know of in the universe. This means there are at least 20 sextillions (this is two plus 23 zeros) planets other than the Earth.

C. _____
With so many planets in the universe, there is bound to be life on quite a few of them. In a search for life, we would probably start by looking for planets similar to Earth. Life on Earth needs liquid water so other planets might need this too. If a planet orbits too close to its star, it will be too hot, and any oceans would boil. Too distant, and any oceans would freeze. Somewhere in between lies the "Goldilocks Zone" - not too hot, not too cold, but just right.

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D. _____

Although we are yet to discover alien life, we can be sure that if we do find it, it will be very different to anything on Earth. However, scientists have speculated how flowers, trees and grass might look depending on a number of factors. These include the atmosphere on a planet, its size and where the sun is in relation to the planet.

E. _____

"Goldilocks planets" could be bigger or smaller than Earth. Smaller planets have weaker gravity, so plants growing there would be taller than on Earth as it would be easier for them to grow. In contrast, gravity is stronger on bigger planets so plants would likely be shorter there.

F. _____

On one hand, if a planet has a thin atmosphere there would be very little wind, so plants wouldn't need to be strong. On the other hand, if a planet's atmosphere was thick, plants would have to evolve to be very strong to survive winds or hurricanes.

G. _____

Plants on Earth use light from the Sun to get energy. They have evolved to absorb blue and red light and reflect green light, which our sun gives off in large quantities. But another sun that is less bright would give off very different energy and plants might be very different colors because of this. Putting this together means plants on other planets are bound to be even weirder than the strangest ones we find on Earth, although I doubt we will find alien plants any time soon.

Source - The Conversation

Glossary:

supercluster - a collection of galaxies

gravity - the force that pulls things towards the center of the planet, so things fall to the ground when they are dropped

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