How Satellites Help Us on Earth

Article: How Satellites Help Us on Earth: Are they more than just space technology?

When people hear the word “satellite,” they often imagine something floating in space, far away from Earth. While that’s partly true, satellites play a very real, and very important, role in our daily lives down here on the ground.

A satellite is a machine that orbits around Earth. Some take photos of space, but most satellites are used to help people. They can be as small as a microwave or as large as a bus, and they move thousands of kilometres above our planet. Yet, the things they do affect us every day.

Have you ever used a GPS to find your way? That’s a satellite at work. GPS satellites send signals to your phone, helping you see where you are and how to get where you’re going. Without them, modern maps wouldn’t work.

Satellites also help scientists watch the weather. They send back images of clouds, storms, and temperatures around the world. This information helps meteorologists make **weather forecasts** and warn people about dangerous conditions like hurricanes or heatwaves.

In addition, satellites help with communication. When you make a video call or watch live sports from another country, a satellite is often making that possible. It sends signals across oceans and continents in just seconds.

Farmers also benefit. Special satellites can scan the ground and show which crops need water or are growing poorly. This is part of what’s called **precision agriculture**, and it helps save time, money, and resources.

Even during natural disasters like floods or wildfires, satellites provide fast images from space. Governments and emergency teams use these pictures to plan rescue missions and deliver help to the right places.

Of course, launching and maintaining satellites costs money and creates space debris. But despite these challenges, satellites have become a key part of life on Earth, often without us even noticing.

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Vocabulary Practice

Word / Phrase	Definition
Satellite	A machine that orbits the Earth to send and receive information.
Orbit	To travel around something in space, like the Earth.
GPS	A system that uses satellites to show your location and directions.
Meteorologist	A scientist who studies weather.
Forecast	A prediction about future weather or events.
Communication	The sharing of information, often by speaking, writing, or technology.
Precision agriculture	Using technology to help farmers grow crops more efficiently.
Debris	Pieces of waste or unwanted material (in this case, in space).
Rescue mission	An operation to help people in danger.
Launch	To send something into space.

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Comprehension Questions

1. What is a satellite, and where does it orbit?

2. How do GPS satellites help people on Earth?
3. What kind of information do weather satellites provide?
4. How do satellites assist during natural disasters?
5. What is one possible downside of using satellites?

Discussion Questions

1. Have you ever used GPS on your phone? How often?
2. What do you think would happen if satellites stopped working?
3. Would you like to see Earth from space? Why or why not?
4. How do you think satellites help in your country?
5. Do you trust weather forecasts from satellites?
6. Should governments invest more in space technology? Why?
7. What might satellites be able to do in the future?
8. How do you feel about satellites watching what's happening on Earth?
9. Do you think there is too much space debris in orbit?
10. If you could design your own satellite, what would it do?