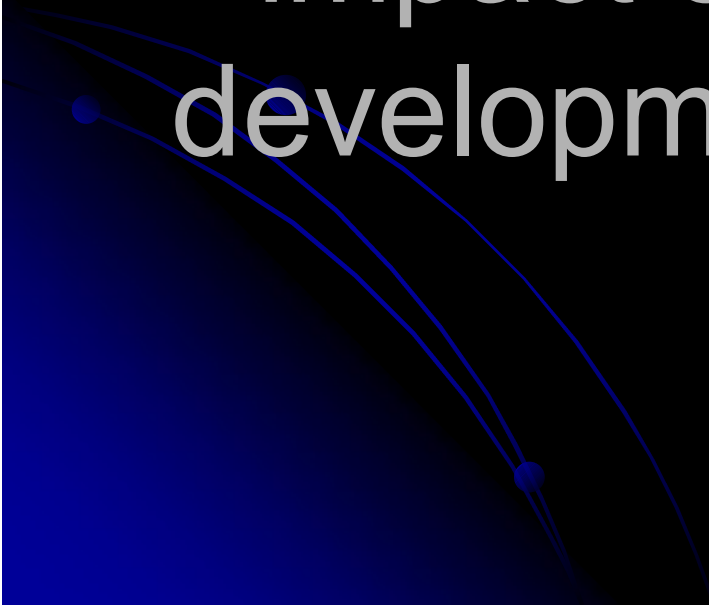


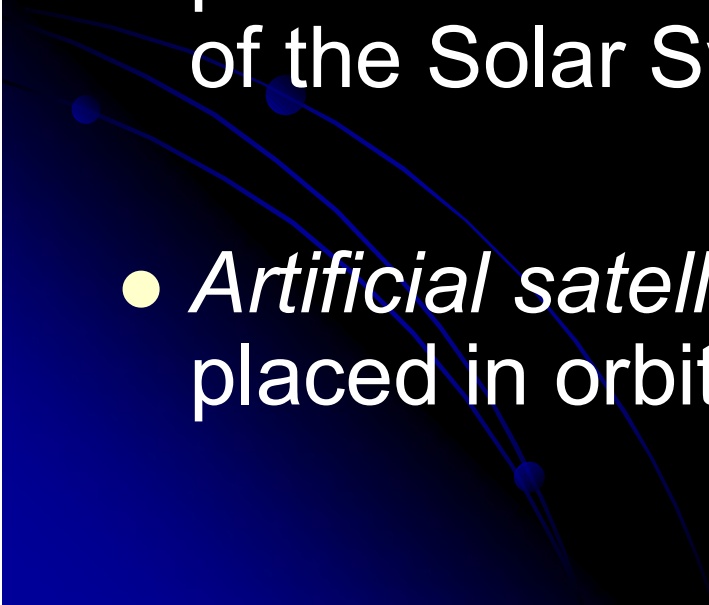
Year 5 History

Week beginning 15th June

L.O.: I can understand the impact of a technological development on modern life



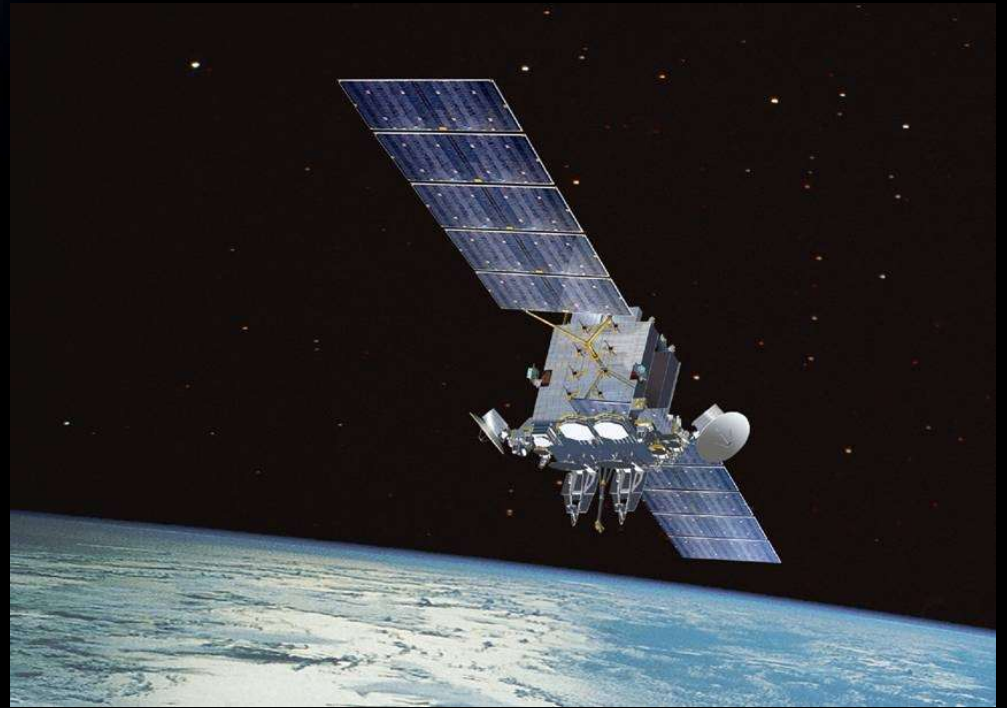
What is a satellite?

- Satellites are objects that orbit planets in space
 - *Natural satellites* are objects that orbit planets and were created *naturally* as part of the Solar System
 - *Artificial satellites* are *man-made* objects placed in orbit around planets
- 



**The Moon – a
natural satellite**

**A communications hub
– an artificial satellite**



What do we use artificial satellites for?

- Scientific research (see what's going on in Space)
- Weather forecasting
- Communications (phone calls, sending messages)
- Broadcasting (television signals, radio)
- Navigation (Sat Nav in cars, Google Maps etc)
- Observing Earth
- Military uses (navigation, communicating, intercepting communications)

Scientific research satellites collect information about changes to Earth and its atmosphere, and are used to observe space, planets and stars. The Hubble Space Telescope is a good example of this.



Weather satellites help scientists study weather patterns and make forecasts for the future.





Communications satellites are used to send radio signals, television programs, emails, messages and phone calls.



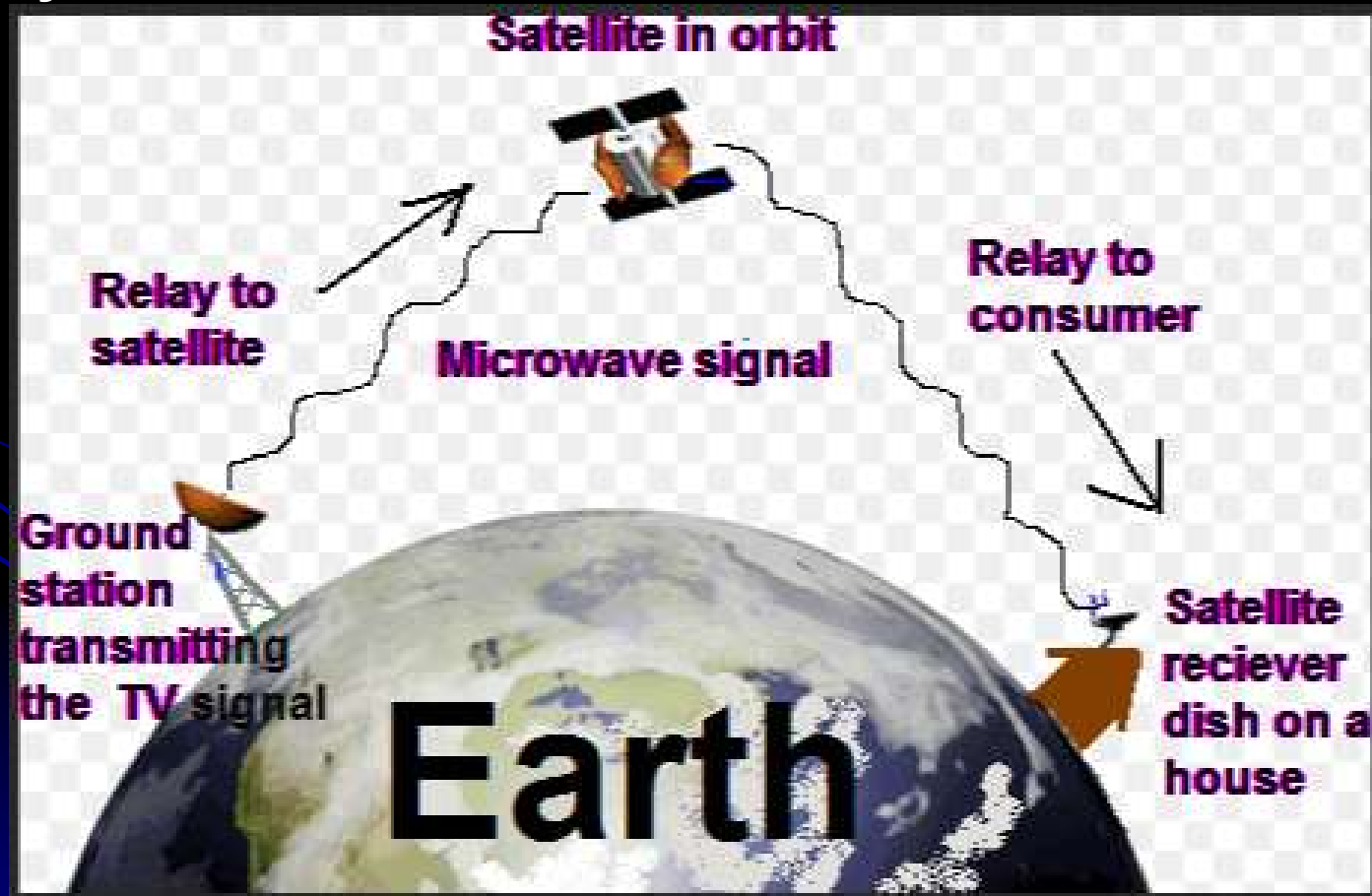
- Navigation satellites let people find their location anywhere on Earth. Walkers can also use the satellites for this purpose.
- Satellites like these also keep SatNav systems in cars up to date.

- Military satellites are also called spy satellites
- They map and photograph Earth
- They are also used to monitor nuclear explosions, weapon launches and to listen to military communications



How do satellites work?

Satellites in space receive a signal from a transmitter on Earth, then pass it on to another transmitter somewhere else on Earth, in an instant! This image shows how programs reach your TV!



Satellite spotting

Earlier this year, Elon Musk (creator of Tesla and a space exploration programme called SpaceX) began launching satellites. These satellites are called Starlink and are designed to deliver high-speed broadband all across the world. In London, we're used to having internet access all the time, but in some places, internet access is unreliable ('glitchy'), very expensive or non-existent!

You can see these satellites in the night sky! Use this link to see when they'll be near your home and track them on a live map: <https://findstarlink.com/>

You can also track the International Space Station and see live footage, as well as tracking many other satellites, on this webpage: <https://www.n2yo.com/space-station/>



Activity:

The first satellite was launched in 1957, which isn't really that long ago! And unfortunately it didn't really do much, just sent a few beeps and blips to a receiver on Earth. In the last 60 years, satellites have developed a lot to enable us quick, inexpensive, good quality information that we are used to!

Keep a brief diary over a couple of days, just noting the activities you do.

Then, think about **how many of those activities use satellites** and mark this in some way (e.g. highlight in a different colour, out a star next to). **Look back over the previous pages to remind you of satellite uses.** For example, if you watch TV – that uses satellite; go on the internet – satellite; check to see if it's going to rain before going to the park – satellite!!

Are you surprised by how much we use and rely on satellites? Imagine a day without using satellites! Do you think you could manage a day without satellites?!