



Ola
Amigos!
I am
Vishesh



Heegly -
Weegly!
I am RUNKY !



What are satellites?

A satellite is an object that orbits (moves) around a larger object.

Did you
know?



Natural Satellites - Which already exists in Nature. Eg.: Moon

Man-made Satellites - which man builds and sends into space.
Eg.: Sputnik 1



EDUCATE - INSPIRE - INNOVATE

Types of Satellites

Natural
Satellite

Man-Made
satellites



Heegly - Weegly!
Man makey !!



EDUCATE - INSPIRE - INNOVATE

First Man-made satellite in space



SPUTNIK 1
(Russia)

$E=MC^2$



Explorer 1

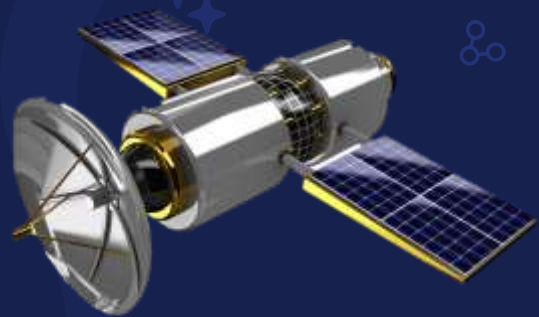
Second Man-made
Satellite (USA)

Third Man-made
Satellite (UK)



Ariel 1

How do Man-made satellites look like?



Society for
Space
Education
Research &
Development

EDUCATE - INSPIRE - INNOVATE

NASA

Types of Satellites

- Astronomy Satellites
- Communication Satellites
- Navigation Satellites
- Weather Satellites



You're looking at the world's first geosynchronous satellite, Syncom I.



Hubble Space Telescope

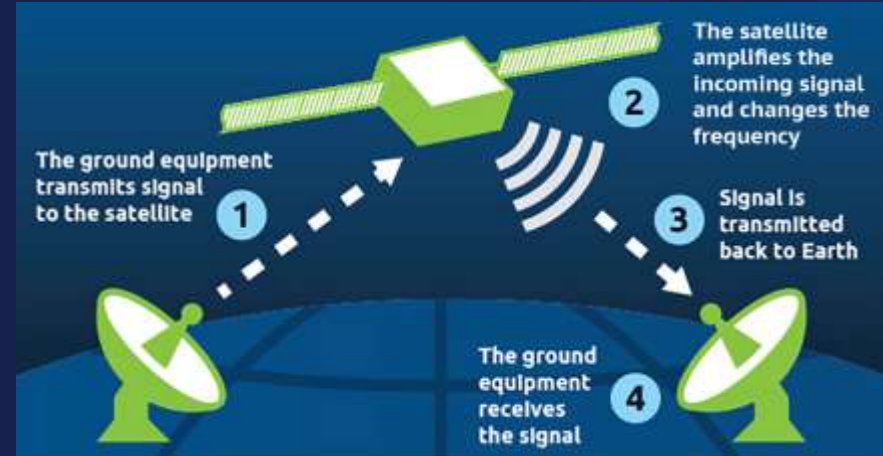
Astronomy Satellite

How do they help us?

They can be **used** to make star maps (picture of night sky).

They can be **used** to take pictures of the planets in the solar system

Communication Satellite



These satellites help us to send and receive signals to operate television, telephone, radio, internet and for military purposes.

Navigation Satellite



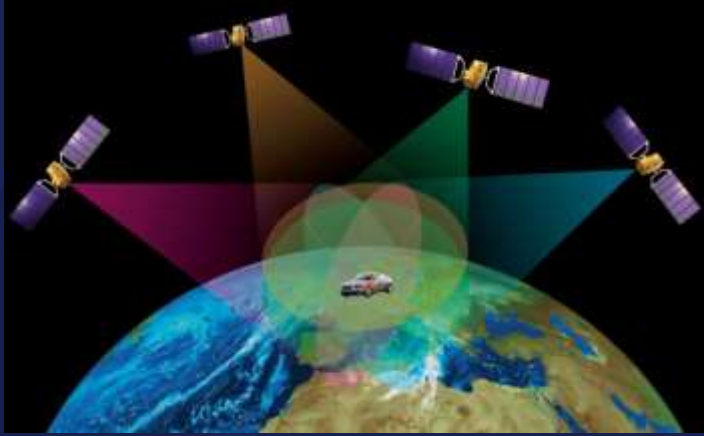
Get there faster with
real-time traffic up dates



Heegly - Weegly!
Movee Gooney!!



Navigation Satellites



Get a radio signal from a satellite
on your device.

At least 4 satellites are needed to
determine your accurate location



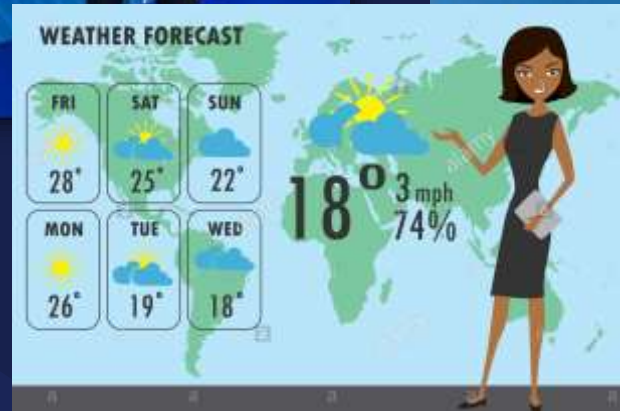
Satellites and Weather



Heegly - Weegly!
Snowy, Chilly!!



Do you identify this?



Weather Satellites

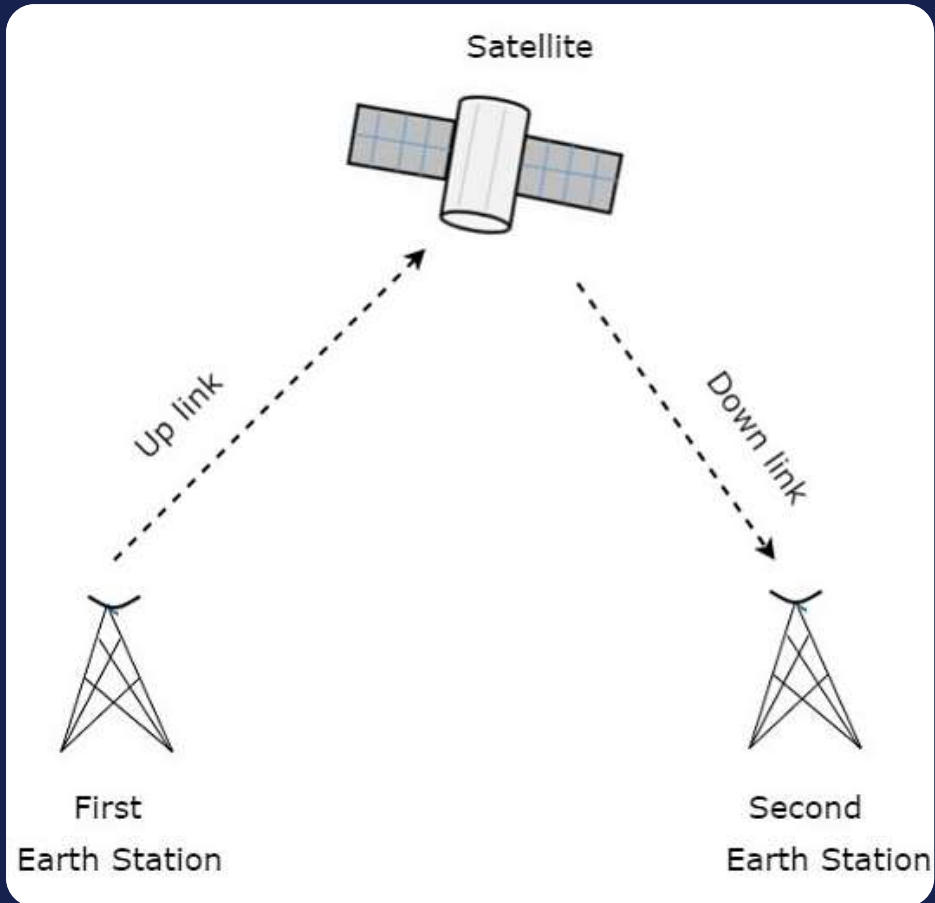


The **weather satellite** is a type of **satellite** that is used to monitor the **weather** and climate of the Earth

Weather satellites carry instruments called radiometers (not cameras) that scan the Earth to form images. These instruments usually have some sort of small telescope or antenna, or more detectors that monitor the weather systems around the world.



How it works?

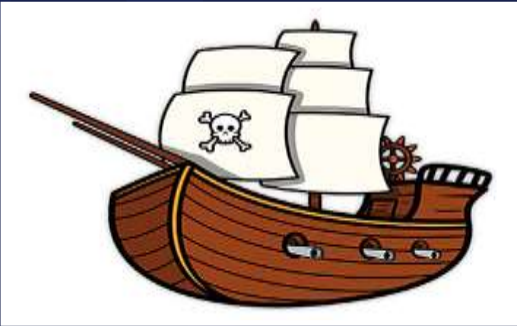




on



$E=MC^2$



on



on



$x, y, z=1$

Heegly - Weegly!

Ee Duiii !

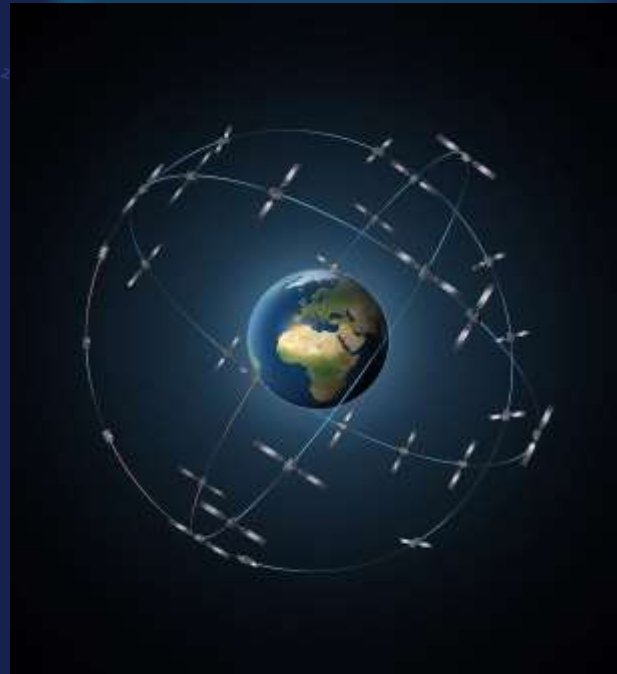


EDUCATE - INSPIRE - INNOVATE

Orbits



in...



- An **orbit** is the path of an object around a particular point in space, for example the path a satellite takes around the Earth.
- **Orbits** are determined by gravity, and are often 'elliptical', the shape of an oval.



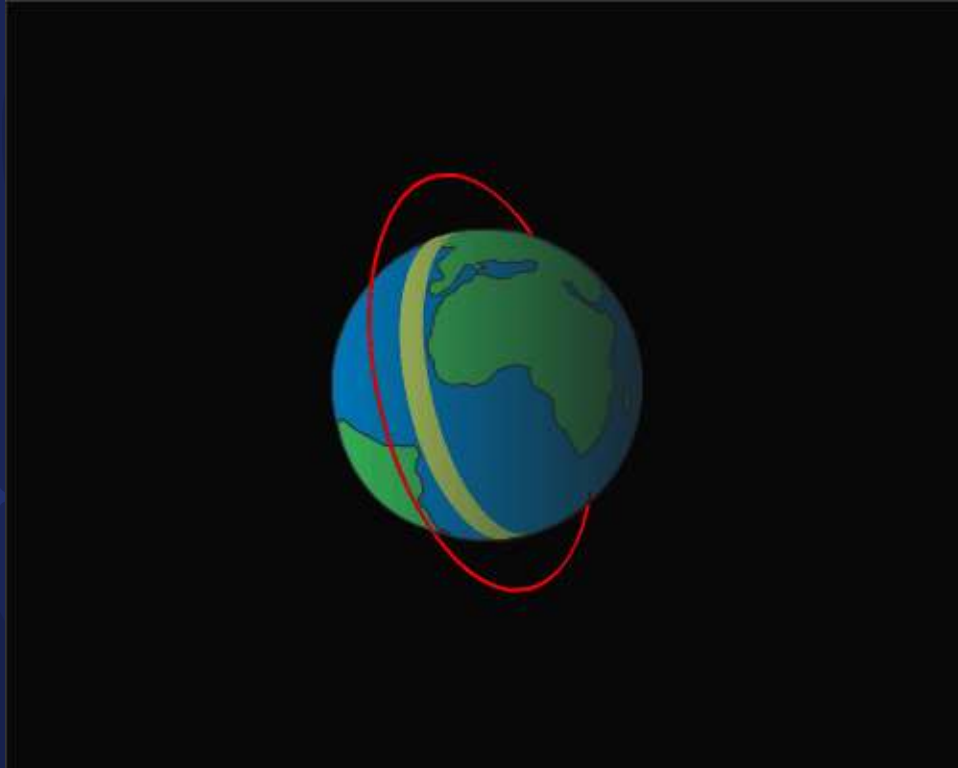
Heegly - Weegly!

Yeee!!



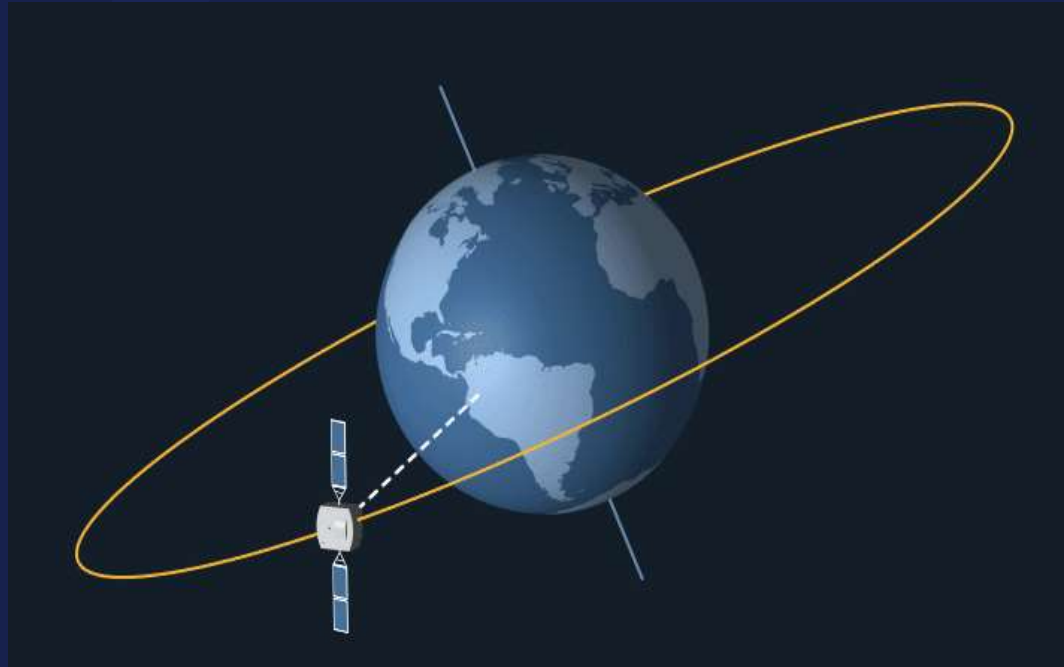
Are there different kinds of Orbits?

LEO (Low Earth Orbit)



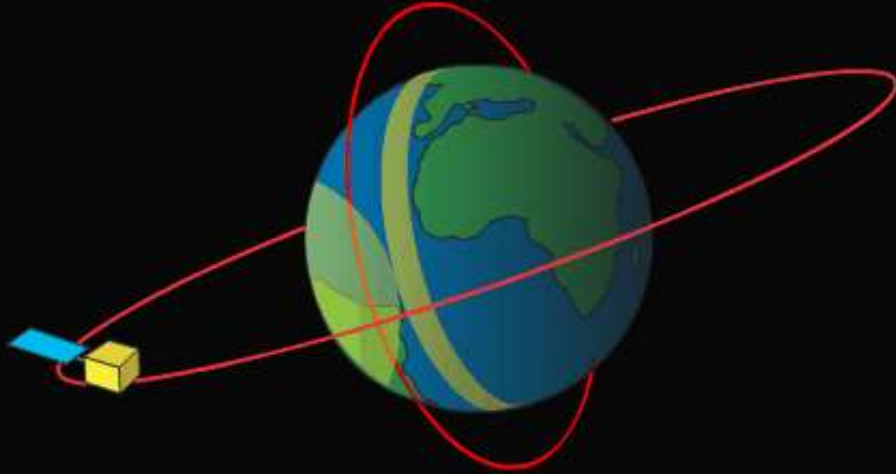
- Up to 2000 km above Earth's surface
- The satellites that pass through Earth's poles are called 'Polar' orbit.

GEO (Geosynchronous Equatorial Orbit)



- Approximately, 36,000 km above Earth's surface.
- Time taken by satellite to orbit Earth is same as length of a day.

Many satellites, but
One Earth..
So, how does it look
when all orbit
together?



What did



teach us today?

- › Satellites
- › Natural and Man-made Satellites
- › Different types of Man-made satellites.
- › Satellites and Weather
- › Orbits
- › Kinds of Orbits

Quiz Time!

$$E=MC^2$$

<https://quizizz.com/join/quiz/5713c736529e167932a02299/start?studentShare=true>



Mini Recap Quiz

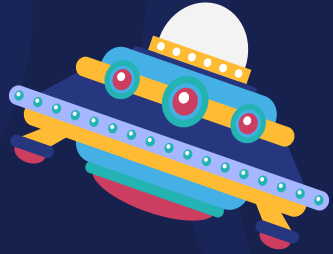
1. The satellite of Earth is _____.
(a) Moon (b) Sun
2. A starmap is a _____.
(a) Map used by a star. (b) picture of night sky
3. The first Man-made satellite to be launched into space is _____.
(a) Explorer (b) Sputnik
4. The path of a satellite is a/an _____.
(a) track (b) orbit
5. What was the alien's name?
(a) Runky (b) Heegly - Weegly

Answers

1. (a)
2. (b)
3. (b)
4. (b)
5. (a)

Project - DIY Paper Satellite model.

- Send us a photo of you holding your smart model satellite.
- Name your satellite.
- Do not forget to provide details like your name and grade.
- The photo must reach us by 12 p.m. of 13th September.



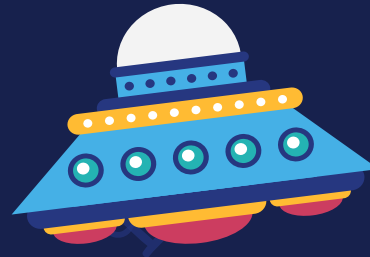
$$E=MC^2$$



$$x+y=1$$

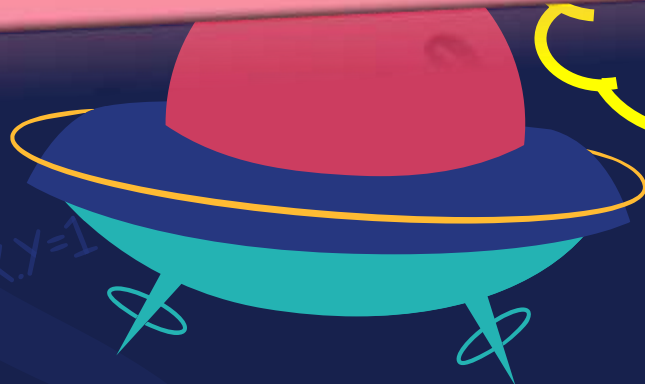
Question Time !

ask@sserd.org





Thank You



Bye - Weegly!

Biieee!!