

Introduction to Remote Sensing

By

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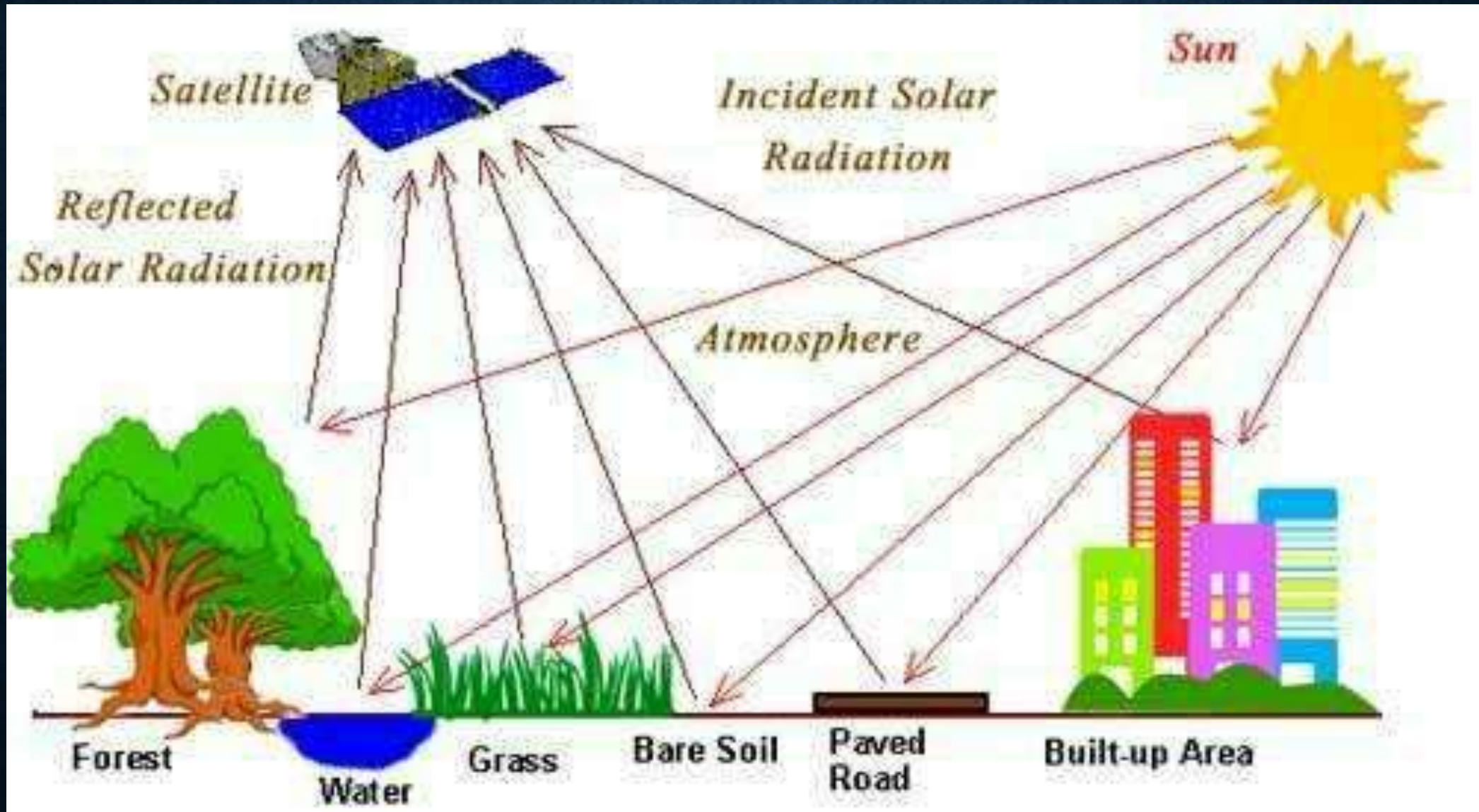
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REMOTE SENSING

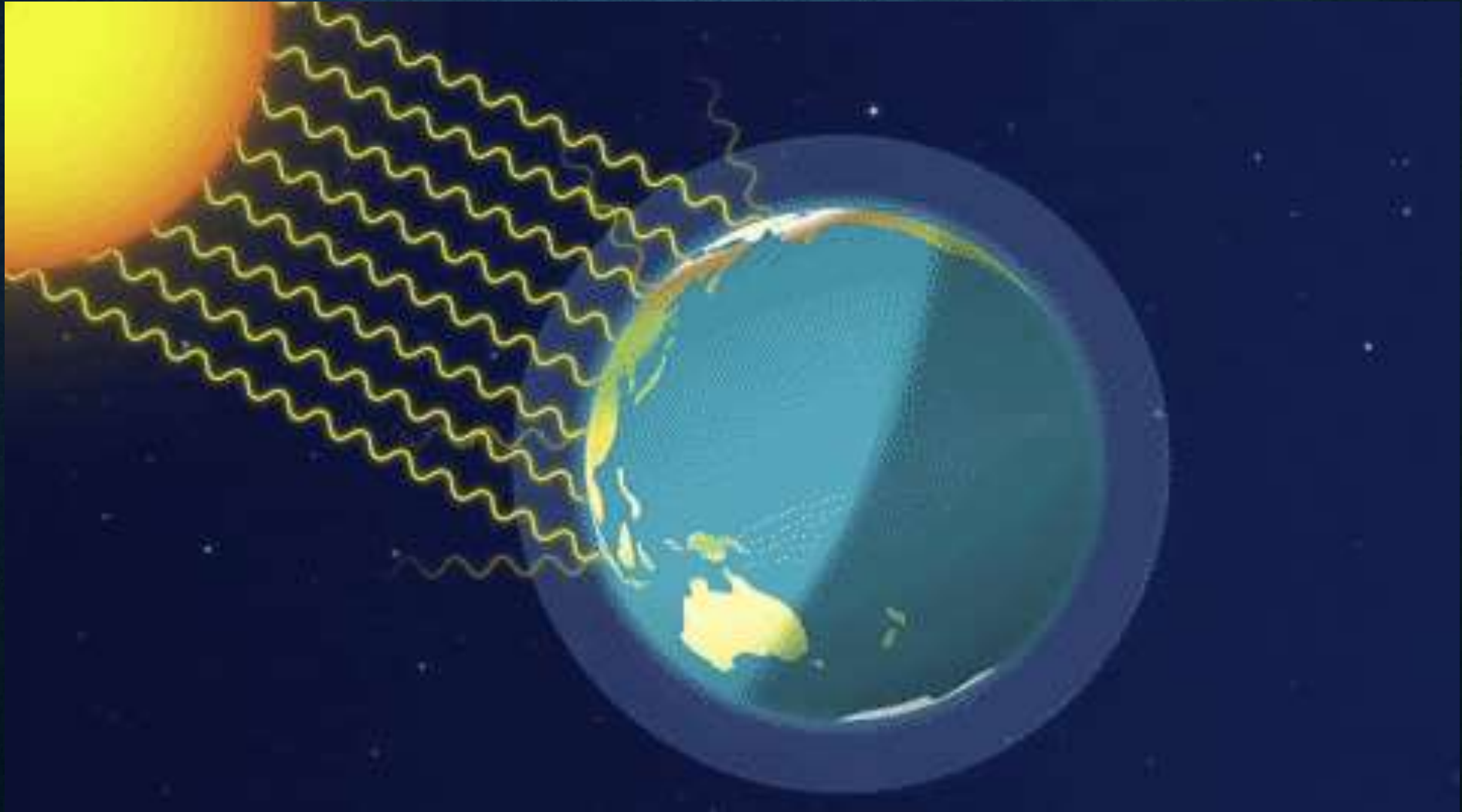
- Remote sensing may be define as acquisition of data about an object from a distance without having a physical contact with it .
- The formation of image on the retina of a human eye is a common example of remote sensing.
- In remote sensing ,the data about an object is acquired by sensor ; a device which detects radiation received from the object and transforms the same into recordable information.



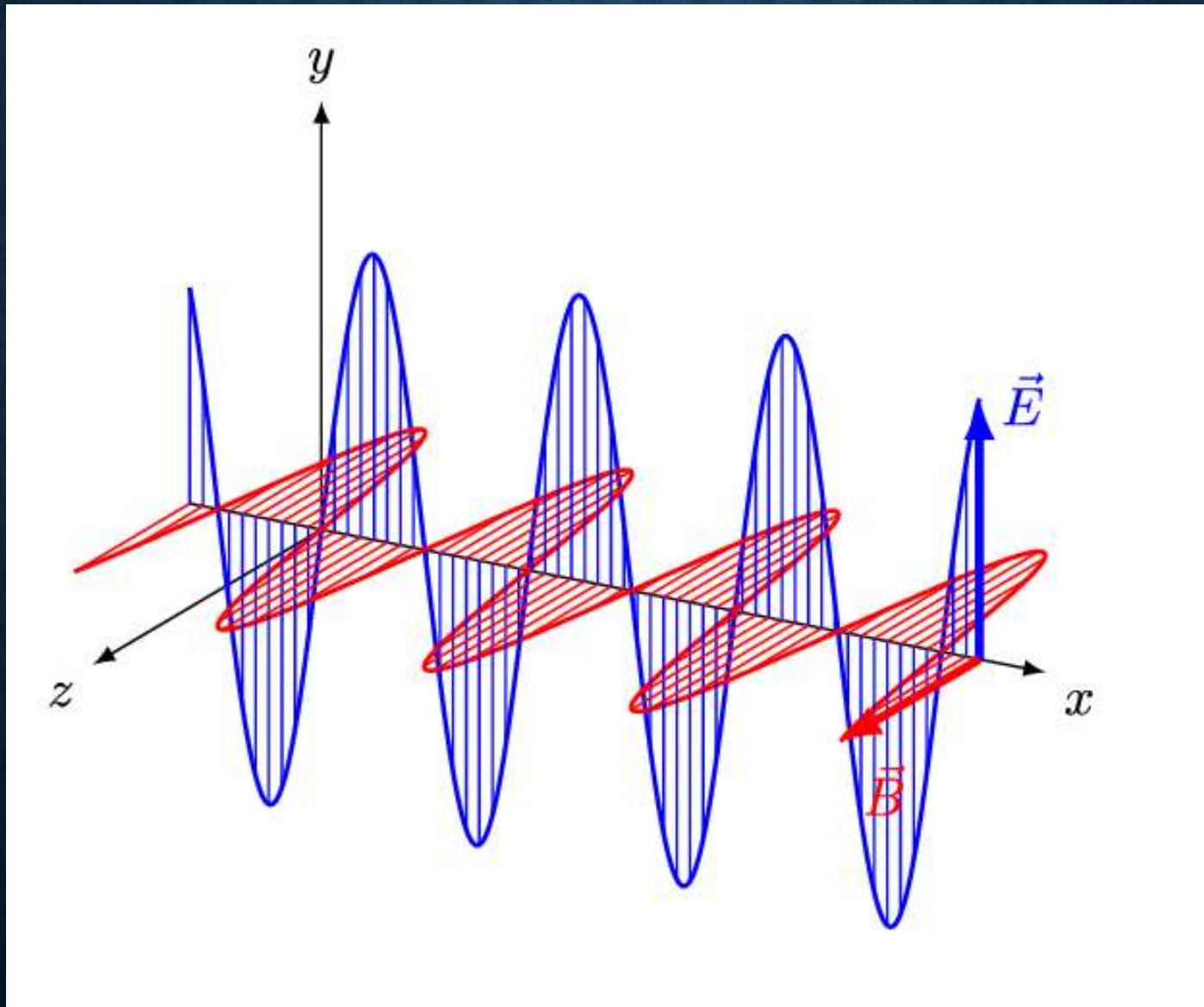
PROCESS OF REMOTE SENSING



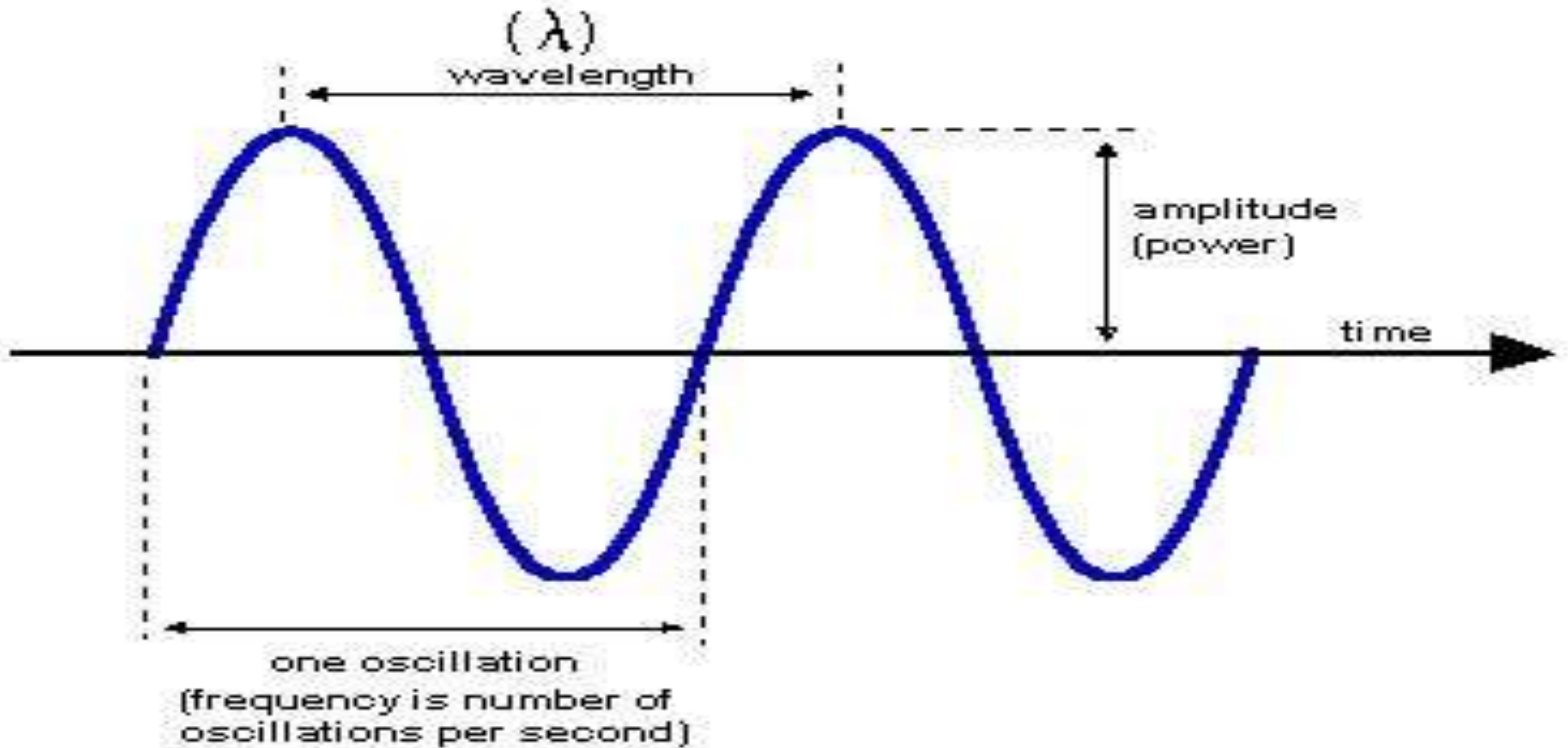
EMR COMING FROM SUN



ELECTRO MAGNETIC RADIATION

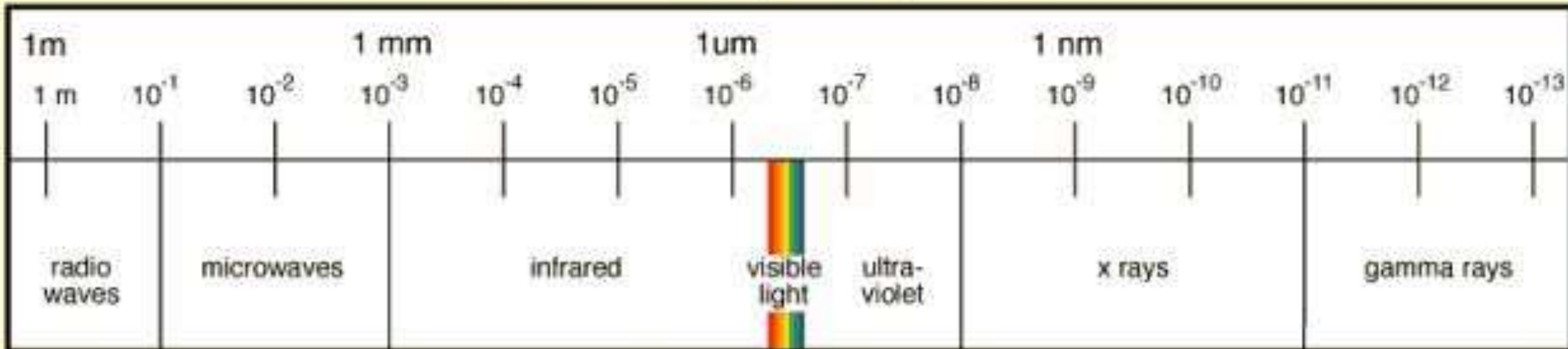


STRUCTURE OF WAVE LENGTH

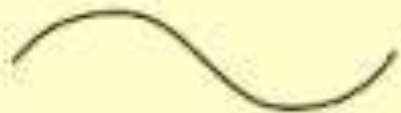


ELECTROMAGNETIC SPECTRUM

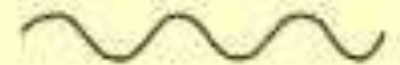
The Electromagnetic Spectrum



visible light: 0.4 to 0.7 μ m

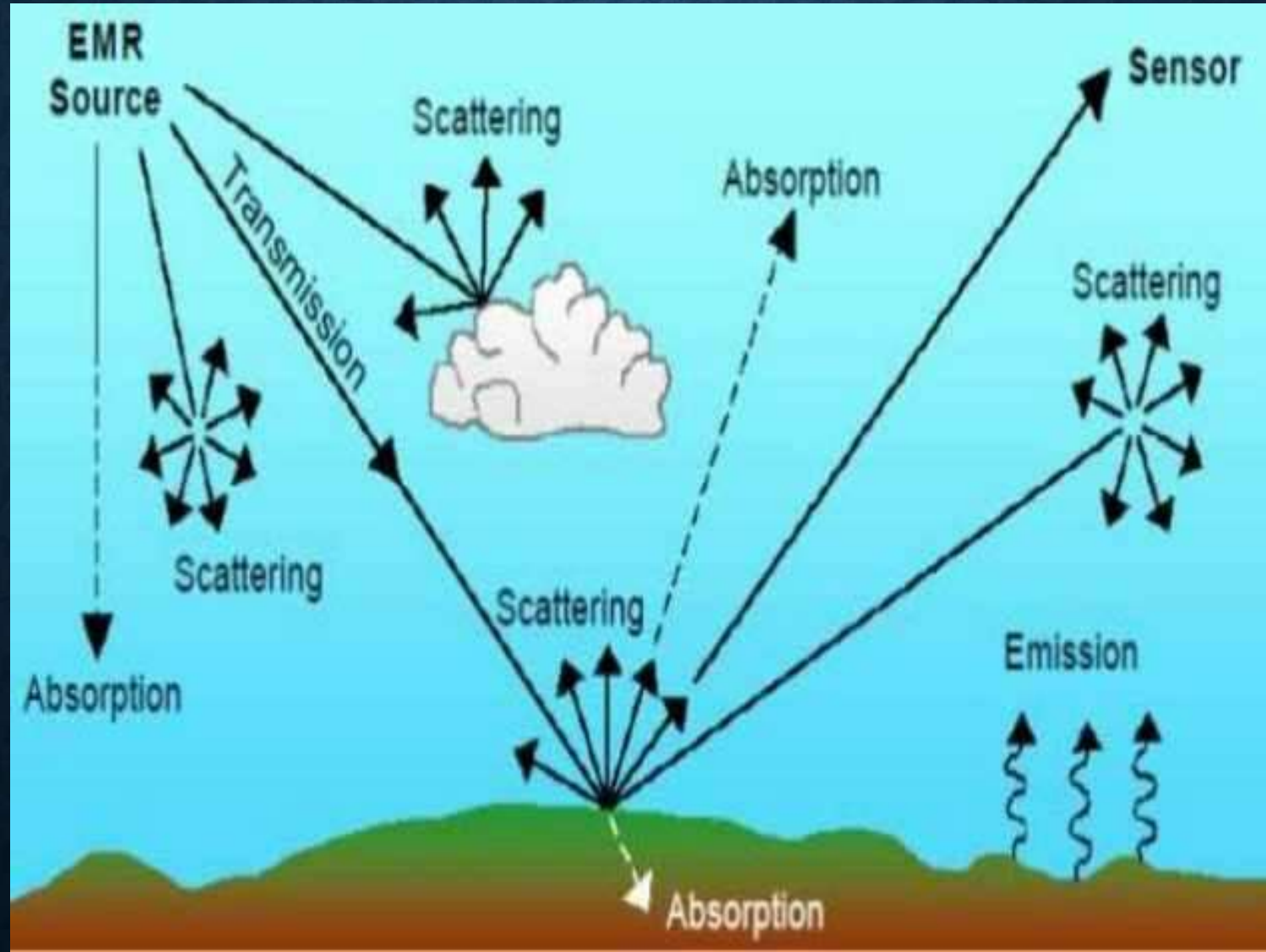


long wavelength
low frequency

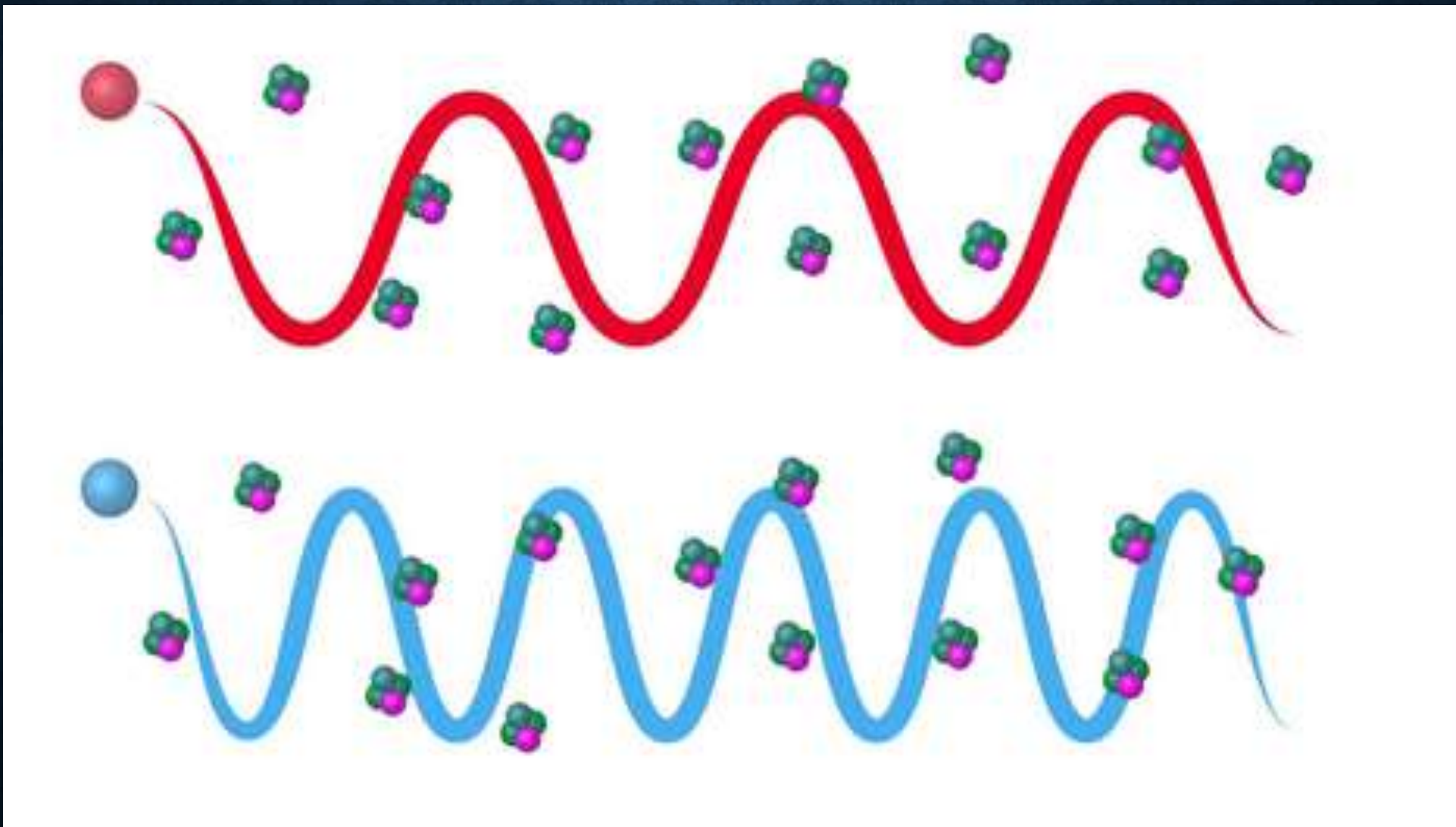


short wavelength
high frequency

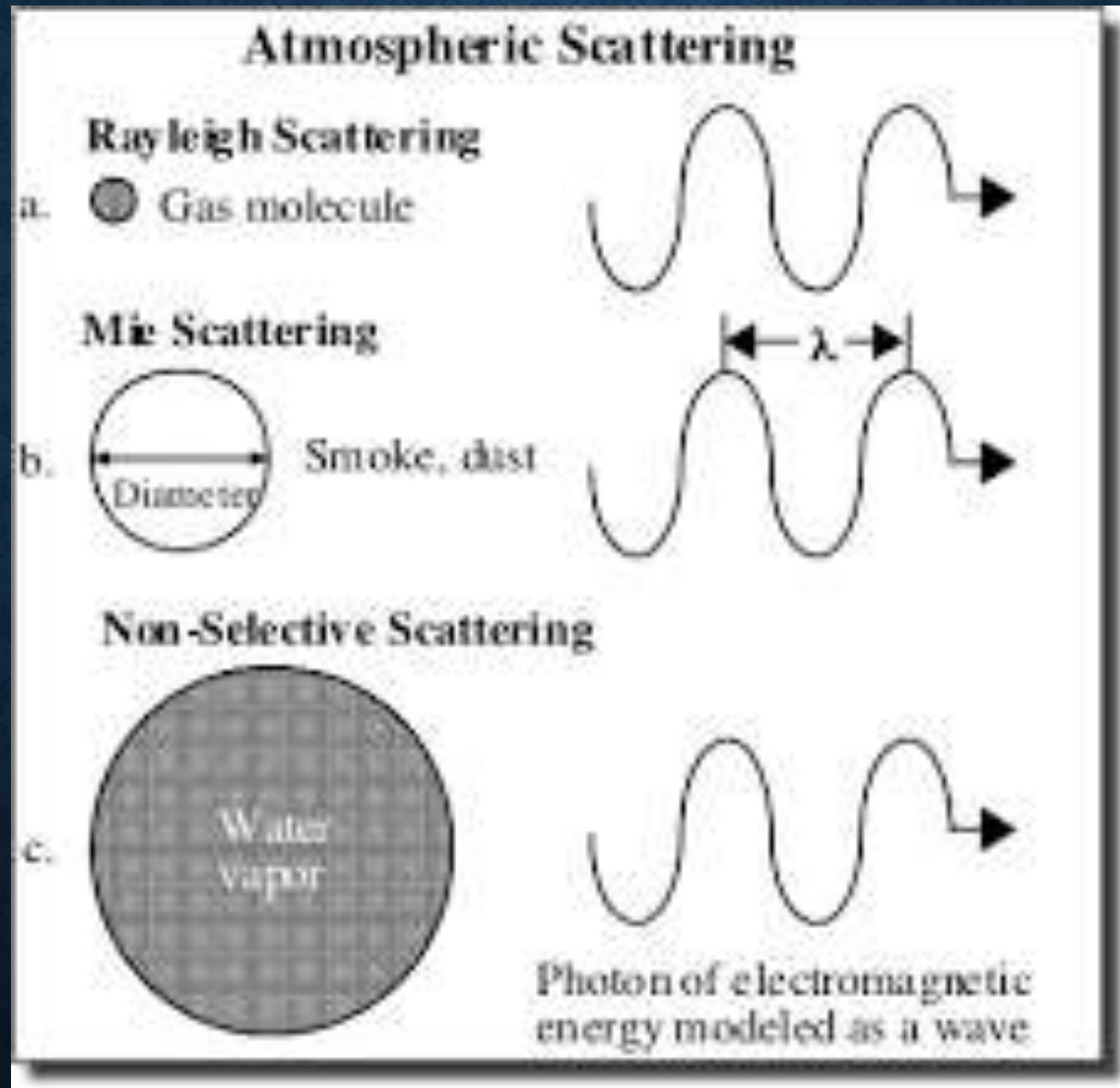
INTERACTION OF EMR WITH ATMOSPHERE



W.L. INTERACT WITH ATMOSPHERIC PARTICLE



TYPES OF SCATTERING

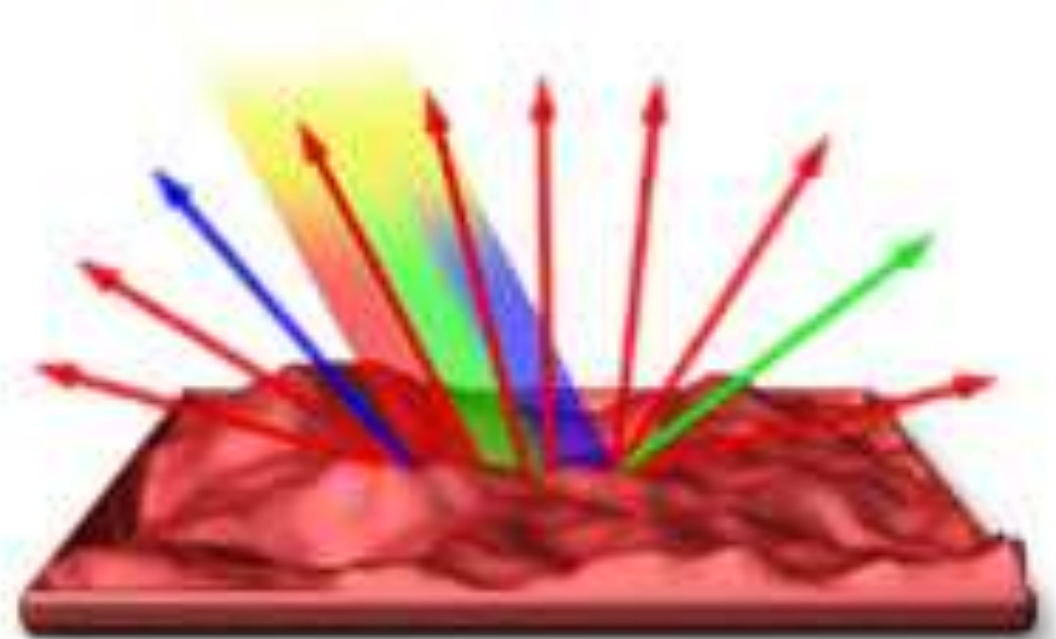


TYPES OF REFLECTION

Specular and Diffuse Reflection



**Specular
Reflection**

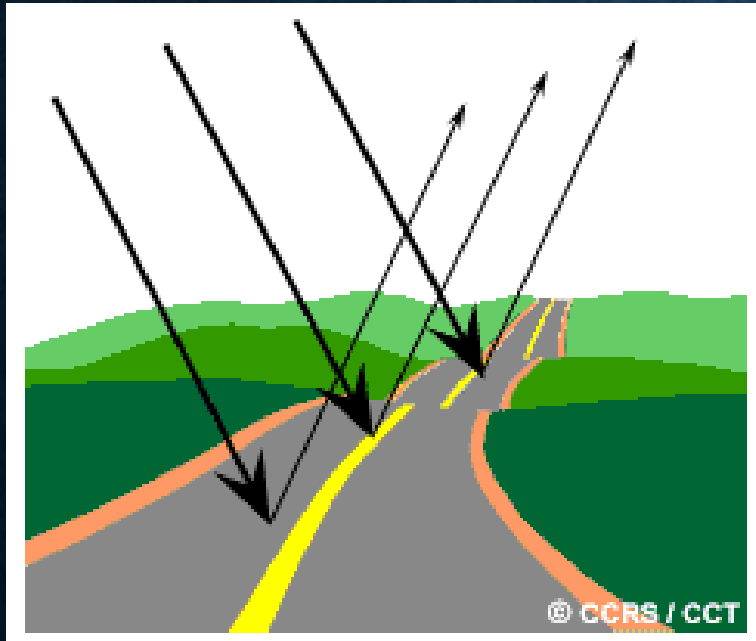


**Diffuse
Reflection**

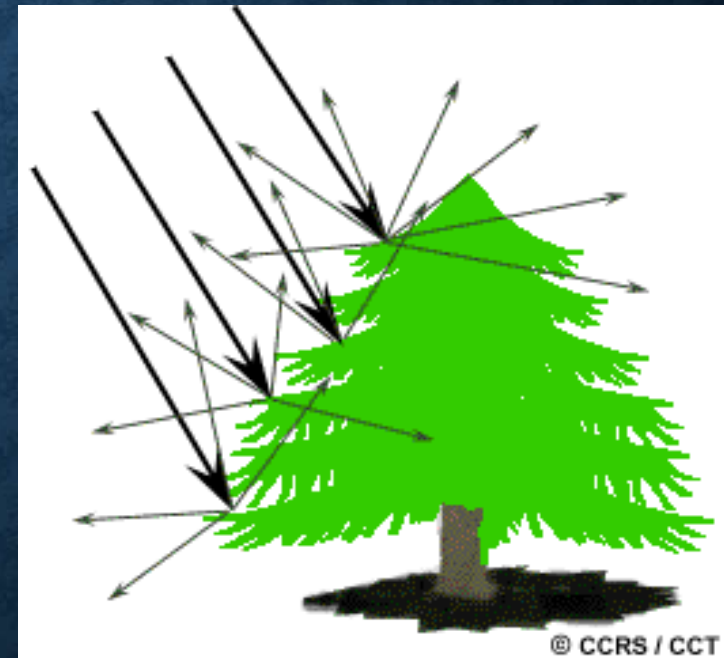
Figure 1

TYPES OF REFLECTION

Specular reflection



Diffuse reflection



SATELLITE MOVING AROUND EARTH

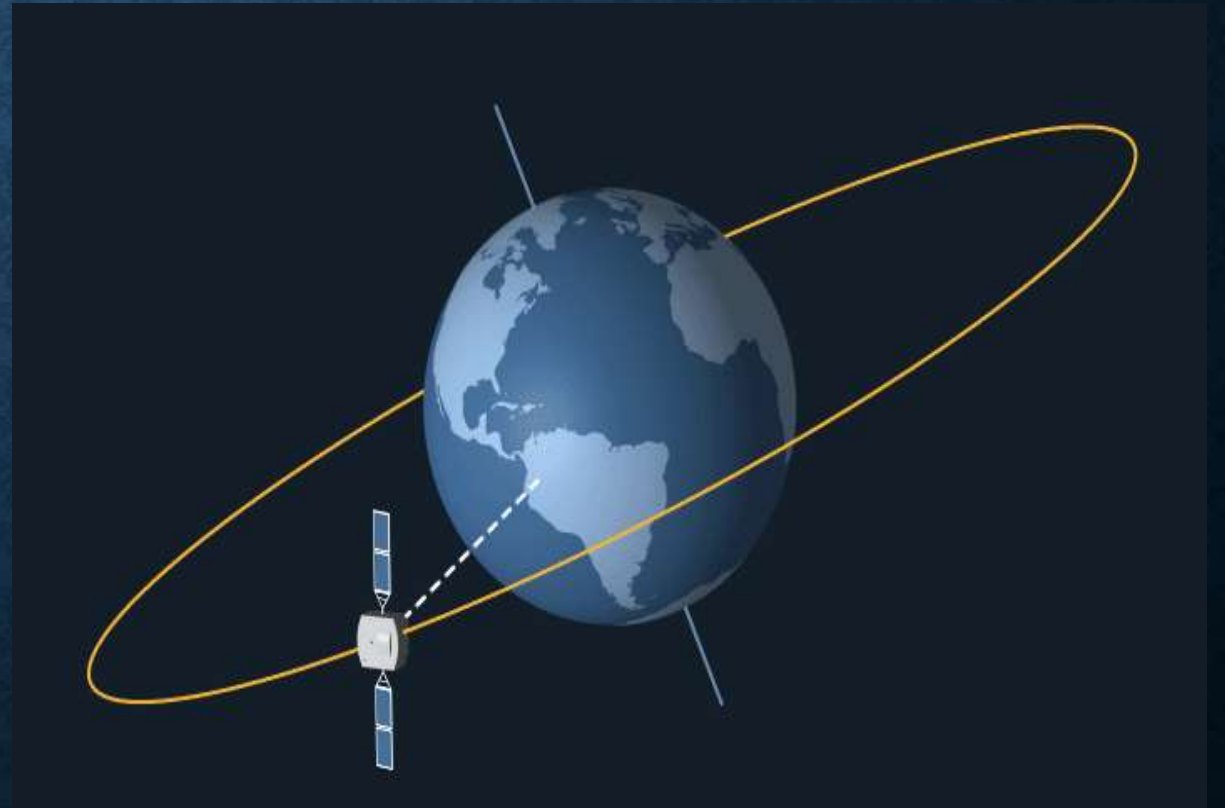


TYPES OF ORBIT

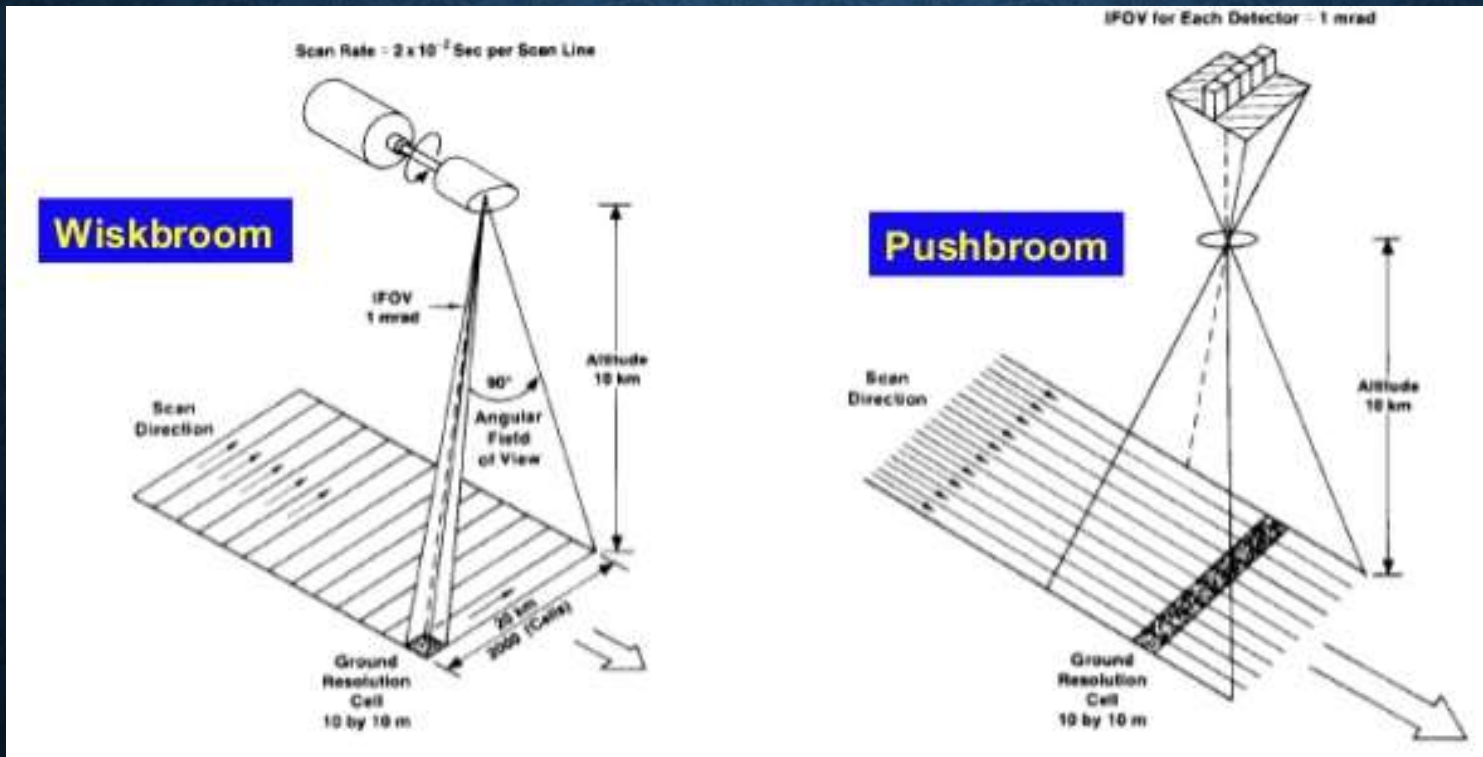
Polar orbit



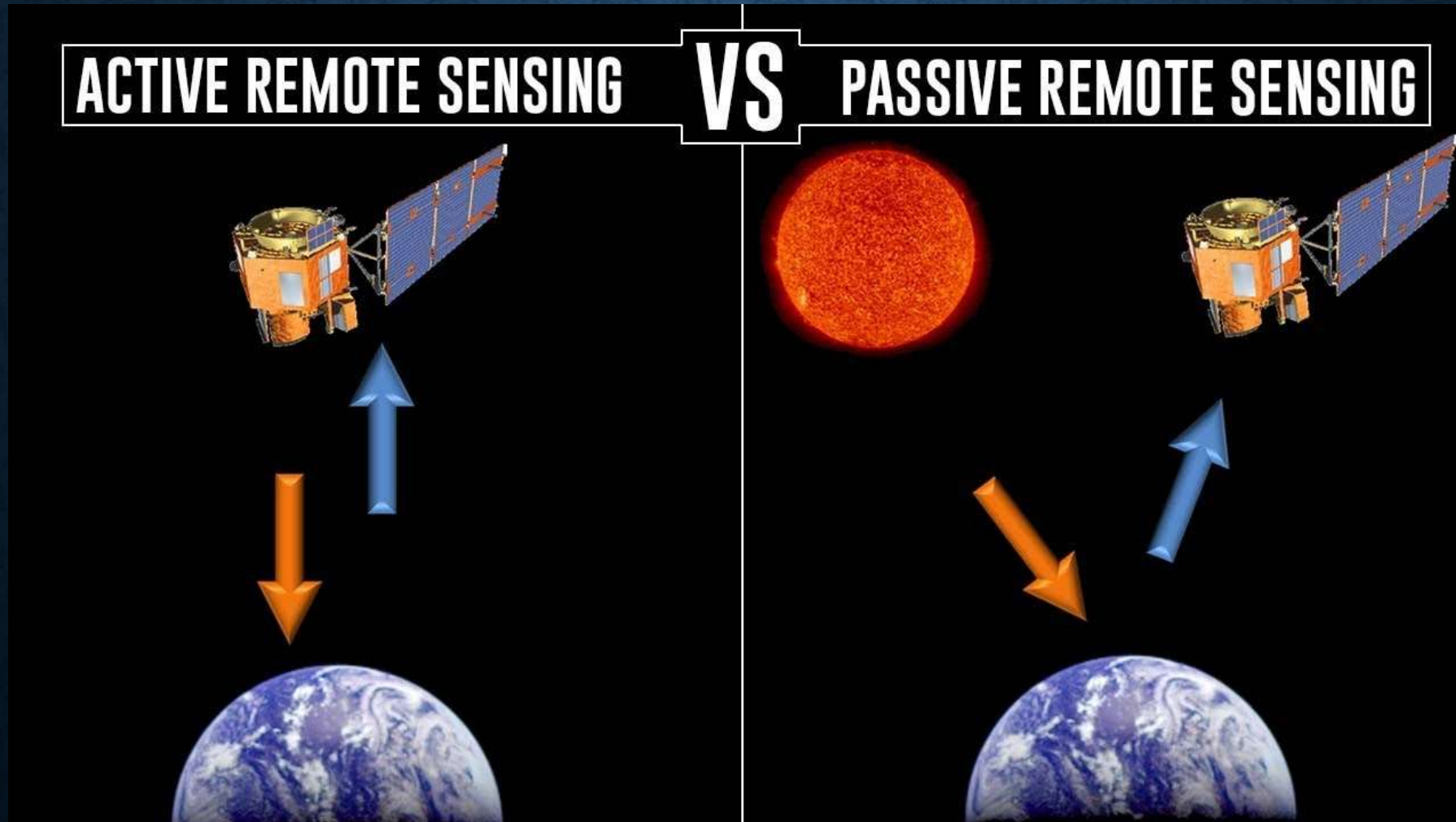
Geostationary orbit



TYPES OF SCANNING SYSTEM



TYPES OF REMOTE SENSING



BROAD AREA FOR APPLICATION OF REMOTE SENSING

- Forestry
- Agriculture
- Geology
- Hydrology
- Ocean and Coastal Monitoring

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Thank you...