

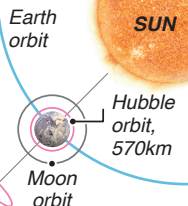
James Webb releases first images

After six months of travel, testing and calibration of instruments, the first images taken by the largest space telescope ever built are to be revealed

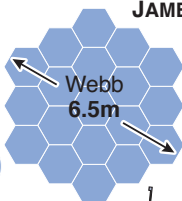
JAMES WEBB SPACE TELESCOPE

Lagrange point 2

Webb orbits 1.5 million km from Earth in spot where gravitational pull from Earth and sun balance out



Hubble
2.4m



Primary mirror

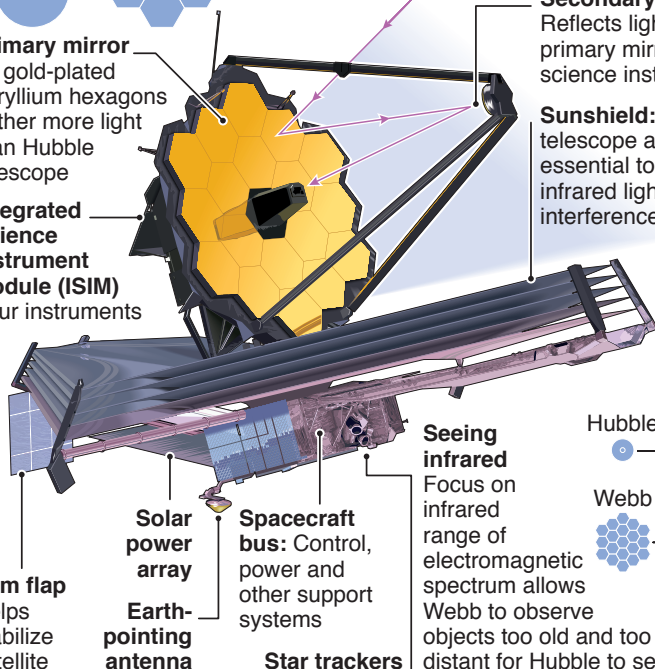
18 gold-plated beryllium hexagons gather more light than Hubble telescope

Integrated Science Instrument Module (ISIM)
Four instruments

Secondary mirror

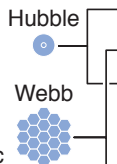
Reflects light from primary mirror into science instruments

Sunshield: Keeps telescope at -223C, essential to see faint infrared light without interference



Seeing infrared

Focus on infrared range of electromagnetic spectrum allows Webb to observe objects too old and too distant for Hubble to see



Age of universe (billions of years)

Webb can see far enough to explore universe 100-250m years after Big Bang, when stars and galaxies began to form

13.8bn – Today

