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**The Webb Space Telescope Dave Eagle FRAS**

**Teachers Question Paper with answers.**

Why do astronomers use telescopes? **To Collect Light**

Why is a bigger telescope better? **It collects more Light.**

What differences does this make? **Objects appear brighter and will be easier to see.**

What is stopping us from seeing objects in the sky properly? **Earth’s Atmosphere.**

What is the name of the most famous and successful space telescope? ­­­­­­­­­­­­­­­**The Hubble Space Telescope**
What new space telescope will replace Hubble? **The Webb Space Telescope**

What light can this new space telescope be able to detect? **Infra-Red Light**

How many panels make up the main mirror? **18**

What shape is each mirror panel? **Hexagonal**

How big is each panel? **1.32 metres**

What is the total width of the main mirror? **6.5 metres**

What metal is the mirror coated with? **Gold**

What light does this metal reflect really well? **Infra-Red Light**

How big is Hubble’s Mirror? **2.4 metres**

How many times more light can the new space telescope’s mirror collect? **6x**

How many times more powerful is this new space telescope to Hubble? **100x**

How many kilometres does The Hubble Space Telescope orbit above Earth? **547 kilometres**

How many times higher than the ISS is this? **Twice (2x)**

How many kilometres will this new telescope orbit from Earth?­­­­­­­­­ **1.5 million Kilometres**

How many times more distant than The Moon will this be? **4x**

Why does the new space telescope need to be folded up before launch? **It is too big to fit in the Ariane Rocket Nose cone.**

What does the sunshield do? **Keeps the mirror and instruments very cold.**

Why does the mirror and instruments need to be kept cold? **So that it can detect infra-red light.**