

# Design a Space Telescope KS5



## *Example Proposal Letter*

Dear \_\_\_\_\_,

We would like to propose a project to send a telescope into space on board a telescope. The aim of the mission is to \_\_\_\_\_.

Previous similar missions are \_\_\_\_\_. This mission will advance on these by \_\_\_\_\_.

### **Instruments**

The instruments on board will be \_\_\_\_\_. They will allow the science goals to be met by \_\_\_\_\_.

### **Mirror**

The main mirror of the telescope will be \_\_\_\_\_. This will allow the instruments to achieve resolutions from \_\_\_\_\_ to \_\_\_\_\_.

### **Cooling System**

The cooling systems on board will be \_\_\_\_\_, to achieve a temperature of \_\_\_\_\_ Kelvin, the minimum operating temperature required by the instruments is \_\_\_\_\_ Kelvin.

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## Mass budget

The total mass of the satellite will be \_\_\_\_\_. The breakdown from the individual components is given below

Mass budget	
Satellite Structure:	
Mirror:	
Cooling System:	
Instruments:	
<b>Total Satellite mass:</b>	

## Orbit Selection

The satellite will observe from \_\_\_\_\_, at a distance of \_\_\_\_\_ from Earth. The orbital period will be \_\_\_\_\_, and the maximum fuel lifetime for maintaining such an orbit is \_\_\_\_\_. The mission duration will be \_\_\_\_\_ years

## Launch vehicle and site

To reach orbit, the satellite will be launched on a \_\_\_\_\_, operated by \_\_\_\_\_, from \_\_\_\_\_. The maximum capacity of this launch vehicle is \_\_\_\_\_,

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## Budget

The total cost of the mission will be \_\_\_\_\_ .

Cost	
Satellite Structure:	
Mirror:	
Cooling System:	
Instruments:	
<b>Development cost:</b>	
Launch cost:	
Ground control cost:	
Operations cost:	
<b>Total mission cost:</b>	

Kind Regards,

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