



# Year 5 History & D.T. Week beginning 1st June

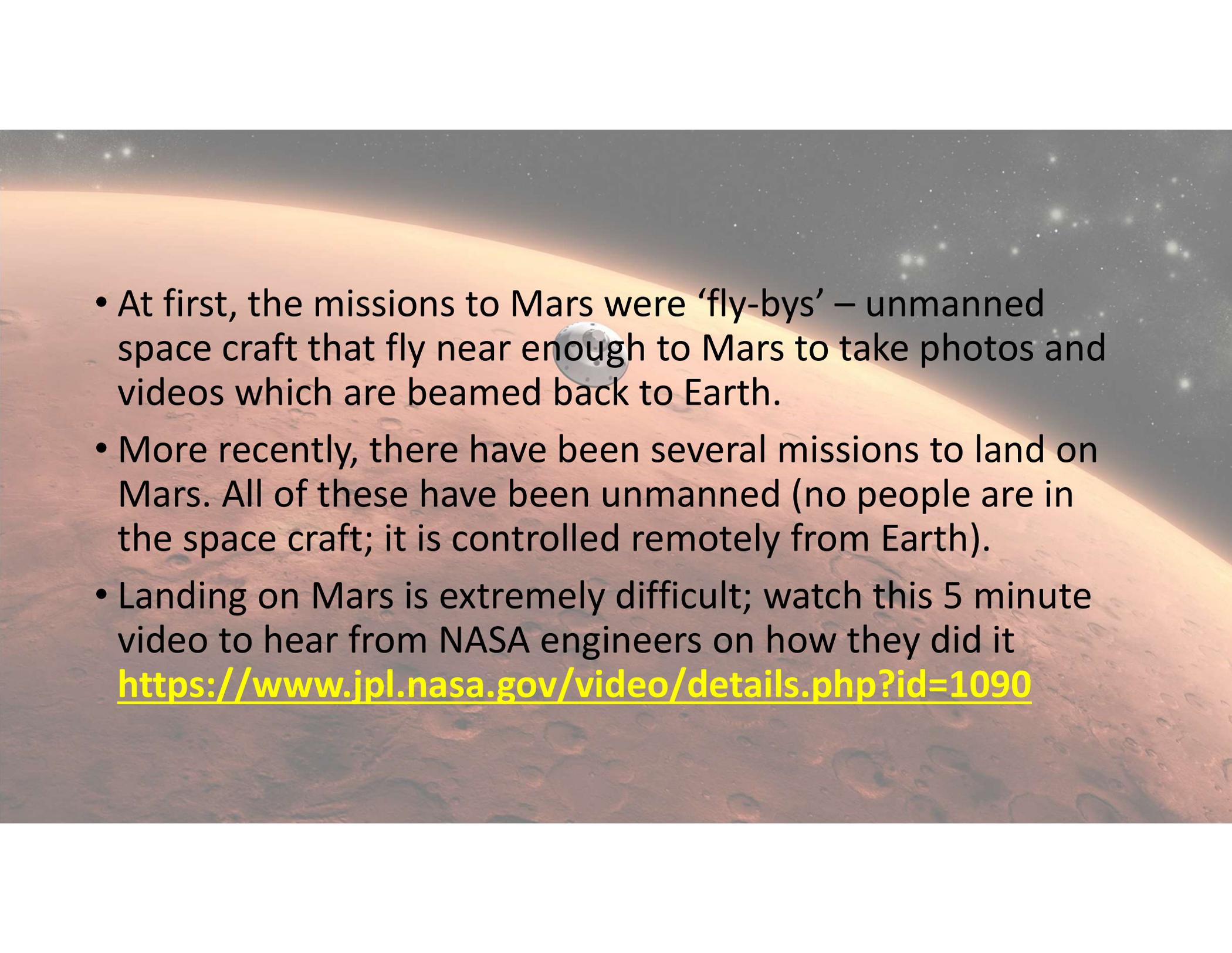
L.O.: I can understand the history of missions to Mars  
I can design and make a parachute

# What's the fuss about Mars?



- Scientists have been obsessed with exploring Mars for a long time. The main questions they want to research are:
- Is there (or has there ever been) life on Mars?
- Is it possible for humans to visit Mars?

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- A small, white, spherical space lander with several circular windows is positioned on the reddish-brown, cratered surface of Mars. The horizon of the planet curves across the middle of the frame, with a dark, star-filled sky above and the textured ground below.
- To answer these questions, America and Russia along with India, Europe, Japan and China space agencies have been working hard for decades to send space craft to Mars to find out more about ‘the Red Planet’.
  - Read the info on this webpage to find out more about the missions <https://www.bbc.co.uk/newsround/26785951>

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- At first, the missions to Mars were ‘fly-bys’ – unmanned space craft that fly near enough to Mars to take photos and videos which are beamed back to Earth.
  - More recently, there have been several missions to land on Mars. All of these have been unmanned (no people are in the space craft; it is controlled remotely from Earth).
  - Landing on Mars is extremely difficult; watch this 5 minute video to hear from NASA engineers on how they did it  
<https://www.jpl.nasa.gov/video/details.php?id=1090>

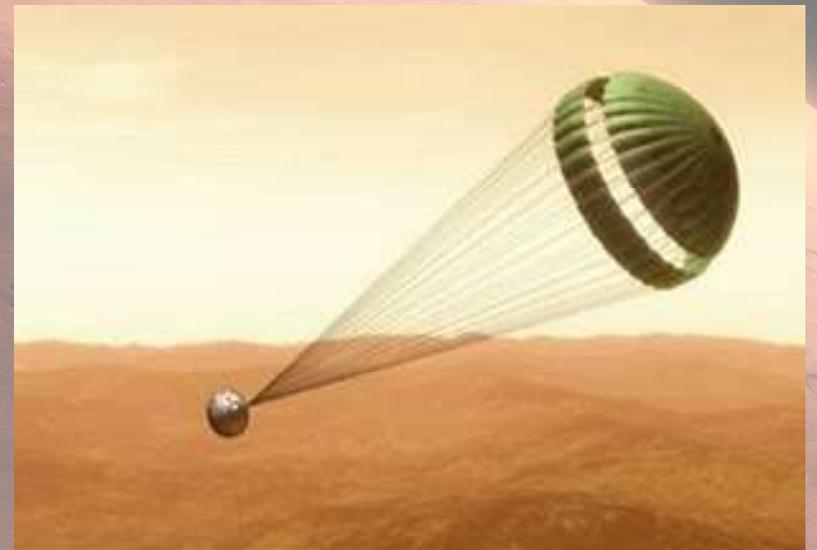
**Several rovers have now landed successfully on Mars. These vehicles can be remote-controlled by engineers on Earth to move around the planet and are fitted with cameras so they can send photos and videos back to Earth.**

The Curiosity Mars Rover took a selfie in 2012! This mission found evidence of previously water-soaked areas on Mars!



However, not all missions to Mars have been successful. In some cases, the parachute which needs to slow the descent of the craft once it enters Mars' atmosphere and descends towards the planet, has failed. Consequently, the craft has crashed in to the planet, destroying the equipment and any chance of gathering information.

Your task: Design and create a parachute to slow the descent of an object when dropped from a height. See next page for more info!



- Step 1. Choose a **small object to be the 'space craft'**. You don't want it to be too heavy or too light and it should be something you can easily attach to your parachute. A toy car, a couple of keys or small chocolate bar would be a good weight.
- Step 2. **Make your parachute** from materials you have available at home. You can use anything you want (but **check with your parents first!!**). You might want to use a piece of fabric like a scarf, tea towel or even a sock! Or you might like to construct something from cardboard, tinfoil or some other packaging you have at home.
- Step 3. **Attach your parachute** to the object. String and Sellotape is probably best.
- Step 4. Find a **safe height to drop it from** (ask a parent if you can stand on a chair maybe, or ask them to drop it since they're taller). Time how long it takes to hit the ground.
- Step 5. **Repeat a few times to find the best design** – you can either modify your original design to see if you can make it better or try a totally new design e.g. if you used a sock, try using a baseball hat the second time!

**Send me photos of your designs!!**