

Friday 26th February

WALT explore the planet Mars, through video images and text, in order to answer questions.



'Perseverance' (a rover) has been in the news recently and your learning journey will provide you with knowledge about the planet Mars, together with this rover's mission.

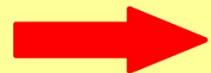
What does perseverance mean?

The dictionary definition of perseverance is - persistence in doing something despite difficulty or delay in achieving success.

This is your entry ticket to the learning journey.  
On it, write down any questions you have about Mars or why Perseverance is there.

ENTRY TICKET	
Admit One	Example questions:
	What is the surface of Mars like?
	What is the weather like on Mars?
	Why has Perseverance gone to Mars?
JOURNEY TO MARS	
Admit One	

At the end of the session, you will have an exit ticket containing the answers to your questions and what you have learned.

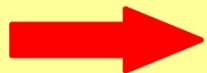
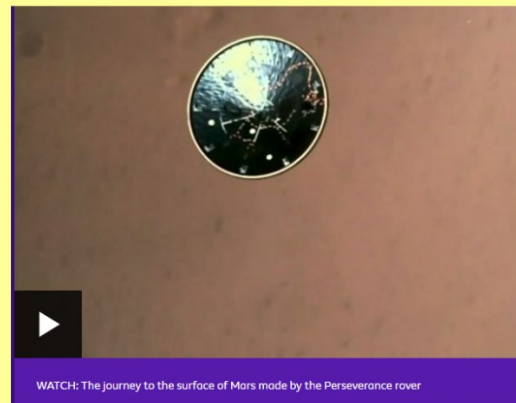
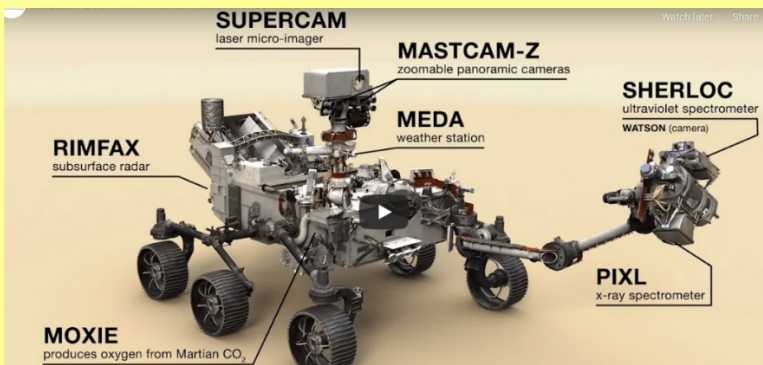


We're now ready to start a journey of discovery. Perseverance touched down on the red planet (Mars) on 18th February. With seven cameras attached, NASA (National Aeronautics and Space Administration) followed its journey as well as its landing.

<https://www.bbc.co.uk/newsround/56165552>




This is the rover.



[https://time.com/5940270/mars-rover-landing-perseverance/?utm\\_medium=email&utm\\_source=sfmc&utm\\_campaign=newsletter+inside-time-saturday+default+ac&utm\\_content=+++20210220+++body&etrid=141775110](https://time.com/5940270/mars-rover-landing-perseverance/?utm_medium=email&utm_source=sfmc&utm_campaign=newsletter+inside-time-saturday+default+ac&utm_content=+++20210220+++body&etrid=141775110)

*This article followed, explaining Perseverance's presence.*

BY JEFFREY KLUGER  FEBRUARY 18, 2021 5:57 PM EST

**T**here was plenty of reason to celebrate when the Perseverance rover successfully touched down in Mars's Jezero Crater this afternoon. But in some ways, the rover showed up too late—3.5 billion years too late, in fact.

Long ago, in an earlier epoch, as studies of Mars have shown, Jezero Crater was Jezero Lake, a 45 km (28 mi.) depression in the northern Martian hemisphere, fed with water via a channel that cut through the crater rim and spread into the lake in a graceful delta. There was atmosphere and there was warmth and there was ample water—and, all that being present, there may have been life.

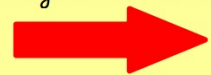
Not long after, however, Mars lost its magnetic field and thus 99% of its atmosphere and nearly all of its water, transforming the planet into the frigid desert it is today. But if that early life was ever present, it could still be there today—in the form of fossilized remains and organic material in the ancient silt of the desiccated lake. It's for that reason that NASA selected Jezero for its most ambitious Mars exploration mission to date—and for that reason that agency officials sounded so celebratory today.

*(The full article is in the link above).*

*The next clip will provide further detail.*



[https://www.youtube.com/watch?v=5qqsMjy8Rx0&feature=emb\\_title](https://www.youtube.com/watch?v=5qqsMjy8Rx0&feature=emb_title)





<https://mars.nasa.gov/technology/helicopter/>



Watch Ingenuity's landing here.



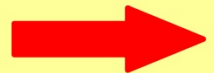
Since Perseverance's landing, it has captured sounds on Mars.

The following sound clips are very faint- maximum volume on whiteboard is needed.

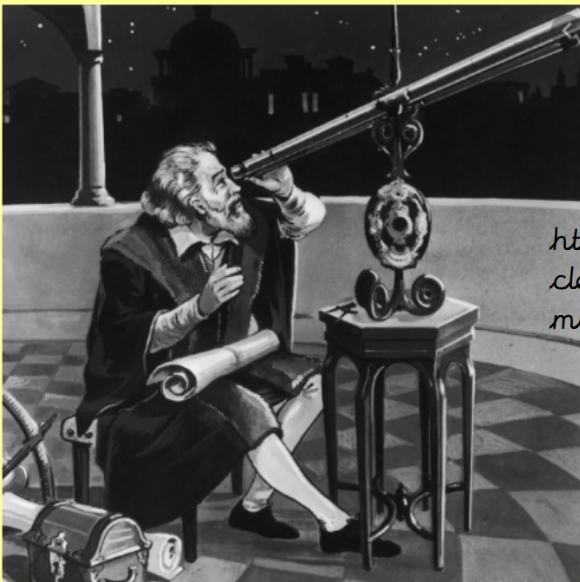
<https://mars.nasa.gov/resources/25629/nasas-perseverance-rover-microphone-captures-sounds-from-mars/>



But how did they know exactly where to land the rover? Find out on the next slide.



Astronomers, scientists and previous space programs have built up an understanding of the environment of Mars, as this clip explains.

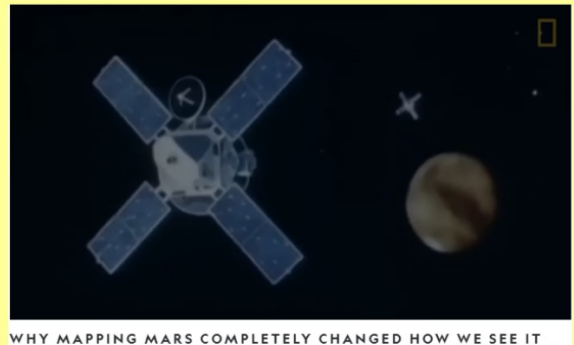


Galileo Galilei was the first to look at Mars through a telescope in 1610, but he couldn't see any detail.



Scroll down the article, look for this photo and play this video clip.

<https://www.nationalgeographic.com/science/article/nasa-perseverance-rover-has-just-landed-on-mars>



WHY MAPPING MARS COMPLETELY CHANGED HOW WE SEE IT



On this NASA link, you can rotate a 3D image of Mars and uncover more scientific facts about the planet.

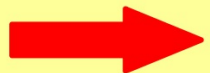


<https://mars.nasa.gov/all-about-mars/facts/>

Perseverance has taken the names of nearly 11 million Earthlings with it to Mars!  
Read the article.




<https://mars.nasa.gov/news/8872/nearly-11-million-names-of-earthlings-are-on-mars-perseverance/>



You will be able to find answers to some of your questions about Mars, by reading from the next two sites.

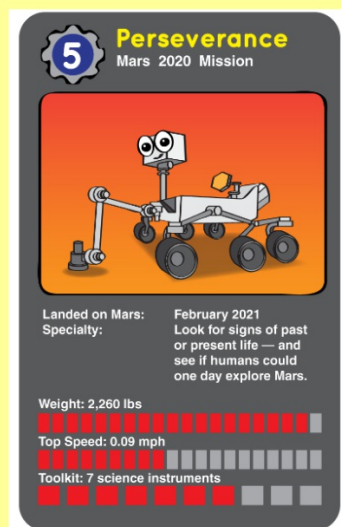
<https://www.ducksters.com/science/mars.php> 

<https://spaceplace.nasa.gov/all-about-mars/en/> 

<https://spaceplace.nasa.gov/mars-rovers/en/> 

CLICK ON THIS IMAGE  
ON THE ABOVE  
WEBSITE LINK.

The children can also read  
about the previous rovers  
on the final link above.





We're nearing the end of this learning journey. You should now have a better understanding of why NASA has a Mars space program and astrobiology. You should have answers to your questions about Mars too.

Perseverance is working at this very moment taking samples of rocks and soil from Mars' core.

<https://mars.nasa.gov/mars2020/multimedia/videos/?v=423>

You can see a panoramic view from Perseverance, by following this link.



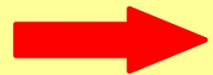
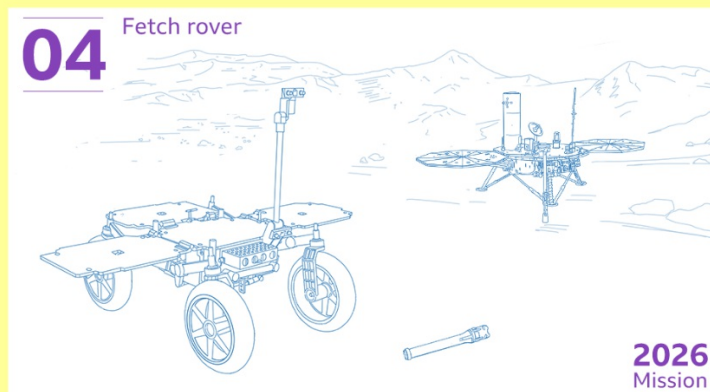
<https://mars.nasa.gov/resources/25622/perseverance-navcams-360-degree-panorama/>



*So, what happens next?*

## Nasa Perseverance rover: Bringing Mars back to Earth

*<https://www.bbc.co.uk/news/science-environment-53553623>*



Write down what you have learned on your Exit Ticket. Also, write down any of your unanswered questions. You will be able to use the NASA link, written on your exit ticket, to discover much more at home.

EXIT TICKET	
Admit One	Admit One
<a href="https://mars.nasa.gov/">https://mars.nasa.gov/</a>	

Finish

