



THE MARTIAN VIDEO DISCUSSION QUESTIONS

STEM Read Interviews Andy Weir

1. Author Andy Weir found the inspiration for *The Martian* by creating an imaginary mission to Mars in his head and going through the many potential failures. If you were to write a novel, where would you find inspiration?
2. Andy Weir explained that when he was not feeling up to writing, he didn't. Sometimes he'd go weeks without working on his story. What are the benefits and drawbacks of this kind of creative process?
3. While discussing his favorite books to read, Andy Weir reveals that he enjoys reading the genre he writes. Do you enjoy writing stories that fall into your favorite genre? Why or why not?
4. Despite considering an epilogue, Andy Weir decided against it. What is one book that you think could have benefited from an epilogue? Why?
5. When fanfiction was brought up there was a series of groans; however, Andy Weir as well as a few members of the audience who were not only excited but fanfiction writers themselves. What is your opinion on fanfiction? Is it literature? Why is there such a split in the writing community regarding it?

Rovin' Around Mars: The Mars Rover Program

1. Before watching the video, consider the following. What do you already know about Mars Rovers? Can you think of a famous Mars Rover?
2. According to NASA ambassador Joel Knapper, they originally believed that the Mars Rovers would last only 6 months on Mars; however, they were able to last many years. How/Why were they able to extend their lifespan on Mars?
3. While Spirit and Opportunity landed with an airbag system, Curiosity landed with a jet propelled system. Which of the two systems do you believe is most effective? Why?

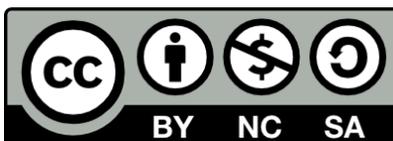
Rovin' Around Mars: Mission to Mars

1. The next rover to land on Mars will attempt to make water on Mars' surface. In the event that it is successful, what would you imagine the reaction will be here on Earth?
2. The time it would take to get to Mars is 2-3 years and in this timespan many things can go wrong. This makes the mission of traveling to Mars very risky and possibly life-ending. Given the risks, do you believe we should still attempt to land humans on Mars? Please explain your answer.
3. Imagine you were tasked with making the anti-radiation shield for Mars. What do you imagine it would look like and how do you believe it would help filter out radiation from the sun? Hint: Think about our own atmosphere. How do we filter out radiation from the sun?
4. If you were given a chance to be a part of a space exploration mission, whether it be to Mars or to the Moon, would you take the offer and travel out of your home atmosphere?
5. NASA ambassador, Joel Knapper, talks about a sample from Mars returning before we are able to land humans on Mars. From past planet exploration to the moon, we know that other planets can provide all sorts of resources like Helium-3. Imagine the sample returning from Mars. What would you like to see us develop from Mars resources?

Rovin' Around Mars: How to Be an Astronaut

1. Some astronauts have to grow their own food while in space. What foods do you think they can grow in space? Why did you pick these specific foods?
2. Astronauts do not have a college-based curriculum, nor do they have a special kind of vocational school they can attend. Knowing this, you can imagine that it is very difficult to become an astronaut, so why do you believe so many people are still aiming to become one?
3. Astronauts are expected to be the best in their field. If you were striving to become an astronaut, what field would you aim to become the best in and how would this field help NASA on the Mars mission?
4. Private companies are working hard at creating a kind of space tour, allowing common, everyday people to journey to the moon and back. Why is this problematic?
5. In the event that space travel ever does reach the point of moon tours, what do you think the politics of the tours should be? Are the tours tax-free? Who gets to control space? Can the moon be split up between countries?

STEM Read and SmartSpace@NIU are part of Northern Illinois University's STEAM Works Initiative.



Potatoes on Mars?

1. In order to grow plants on Mars, astronauts would require a source of heat, cooling, and water. How do you think they could create/find these resources on Mars?
2. Plants would also require a CO₂ source. Craig Schultz jokes about having astronauts stand in front of the plants and breath on them. What are some other ways astronauts could supply their Mars plants with CO₂?
3. The video talks about hydroponic. This is where a closed system passes water past the roots and the water is reused. How is this beneficial? How is this problematic?
4. Craig Schultz recommends fruits and potatoes for Mars gardening. Why did he pick these specific kinds of food?

Martian Potato Party!

1. Consider the vegetables Chef Chad uses, potatoes, tomato, and onions. Do you think Watney have been able to grow both of these vegetables? Why or why not?
2. If you had to live off of one potato dish for the rest of your life, what potato dish would you choose?
3. If you had eaten potatoes for 4 years, would you ever eat them again? Why or why not?

STEM Read and SmartSpace@NIU are part of Northern Illinois University's STEAM Works Initiative.

