

# Reading Guide

Get the discussion started in your club with the questions below. We'll be pulling from this list to start the virtual discussion, but feel free to let us know if there are other possible questions you would like to discuss during the chat. Tell us on Facebook, Twitter, or Instagram using #ACSCHEMCLUB or send an email to: [hschemclubs@acs.org](mailto:hschemclubs@acs.org).

Page numbers used are from: Weir, Andy. *The Martian*. Classroom edition, Broadway Books, 2014.

## Discussion Questions

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### General questions

1. Many classic books can be identified by their first sentence. For example, "Call me Ishmael" and "It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife." What do you think of Weir's first sentence?
2. What was your reaction to the first 37 pages of *The Martian*? Have you or will you read more or not? Why/why not?
3. Although the author doesn't give any specific time period, how far in the future would you guess the story is set?
4. What part from the first 37 pages most stuck in your mind, either a situation or a specific quote?
5. At the end of reading the 37 pages, how invested were you in Mark Watney and his eventual fate? What about his character do you feel is relatable to your own life and personality?
6. What did you feel Watney's chances for survival until he could conceivably be rescued were on Sol 6? On Sol 37?
7. The book describes Watney's solutions to various challenges that he tackles using scientific knowledge and problem-solving ability. Another challenge he faces that is not specifically addressed is maintaining his sanity while trying to survive as the only person on the planet. What are some things he did to keep his grip on reality?
8. Based on your reading so far, would you recommend *The Martian* to a friend who is not particularly interested in science? Why/why not?
9. Would you read another book by Andy Weir? Why/why not? (You can also research the plot of his next likely book release online.)
10. Are there other fictional books that you would recommend that also weave science into the plot?

### Science-specific questions

11. Watney's fellow astronauts leave his body behind on Mars, per NASA regulations (Sol 6, p. 7). What are the reasons behind the regulations? What is your reaction to this decision?
12. Reread Watney's thoughts about chemistry on Sol 30, p. 27 "Chemistry, being the sloppy..."; Sol 33(2), p. 32 "mad scientist setup"; Sol 37, p. 36 "Chemistry is messy...". Do you feel these are accurate portrayals?
13. Watney describes his science background ("I'm a botanist and mechanical engineer" and role on the mission's crew "the mission's fix-it man who played with plants") (Sol 7, p. 10). How do these two areas play into the challenges he faces from Sol 6 to Sol 37?
14. How does a "sol" compare to a "day"? Why is it called a "sol"? (Sol 25, p. 18) One source of information on Mars solar time is <https://www.giss.nasa.gov/tools/mars24/help/notes.html>.
15. How does martian soil compare to Earth soil? What does Watney do to make it usable for growing potatoes?



16. As Watney plans how to react hydrazine to obtain hydrogen, he states, “The hydrogen will be hot after the reaction, and it’ll want to go up” (Sol 33(2), p. 32). How does the temperature of a gas relate to its density? Would hydrogen gas typically rise in the Earth-like atmosphere of the Hab, even if not at an elevated temperature?
17. While working with hydrazine, what personal protective equipment does Watney use? Why? Locate a Material Safety Data Sheet (MSDS) for hydrazine online. Does the information it contains match with what Watney describes about the chemical?

## References

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The Martian: Popular Fiction Plus Chemistry.

<https://www.chemedx.org/blog/martian-popular-fiction-plus-chemistry>

13 General Book Club Questions for Any Kind of Discussion.

<https://www.bustle.com/articles/167822-13-general-book-club-questions-for-any-kind-of-discussion>

11 Book Club Questions Everyone Can Answer.

<http://www.barnesandnoble.com/blog/book-club-questions-everyone-can-answer/>

Mount Prospect Public Library Book Discussion Questions: The Martian by Andy Weir

[https://mpropl.org/check\\_it\\_out/book-discussion-questions-the-martian-by-andy-weir/](https://mpropl.org/check_it_out/book-discussion-questions-the-martian-by-andy-weir/)