



WITH:

Dr. W.



CURIOUS CAREER COMPANION GUIDE

DISCOVER A WORLD OF CAREERS YOU DIDN'T KNOW EXISTED

COMPANION GUIDE: The Aerospace
Behavioral Scientist (S2 E2)

RUN TIME: 15 minutes

GRADE LEVEL: 8-12

Episode Summary

In this episode:

- Aerospace Behavioral Scientists study human behavior, teamwork, stress, and mental health in extreme environments like spacecraft and Mars simulations.
- Discover how psychology, neuroscience, communication, and space exploration connect to support astronauts during long-duration missions.
- Learn how scientists help humans emotionally adapt to isolation, pressure, and uncertainty while preparing for the future of space travel.

Vocabulary Spotlight

Behavioral Science

The study of how humans think, act, communicate, and respond to different situations and environments.

Isolation

A state of being separated from others for long periods of time, which can affect emotions, behavior, and mental health

NEXT GENERATION SCIENCE STANDARDS (NGSS) ALIGNMENTS



Middle School Standards	High School Standards
MS-ETS1-1: Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution. MS-LS1-8: Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories. MS-ETS1-2: Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.	HS-ETS1-2: Design a solution to a complex real-world problem by breaking it down into smaller, manageable problems. HS-LS1-3: Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis. HS-ETS1-3: Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs.

Discussion Questions



1. If astronauts on a Mars mission began experiencing conflict or emotional burnout, who should have more decision-making power: the crew members themselves or scientists monitoring them from Earth? Why?
2. Do you think humans are emotionally ready for long-term space colonization? What evidence from life on Earth supports your opinion?
3. Aerospace Behavioral Scientists study how people react under pressure and isolation. How could the same research be used to improve schools, hospitals, sports teams, or emergency response teams here on Earth?

Extension Activity



Design a “Mars Crew Wellness Plan”

Imagine you are a part of a team preparing astronauts for a 9 month mission to Mars.

Your task: Create a “Crew Wellness Plan” that helps astronauts stay:

- Mentally healthy
- Focused under pressure
- Connected as a team
- Motivated during isolation

Include:

- A daily schedule
- Activities for relaxation or stress relief
- A plan for handling disagreements
- Ideas for maintaining communication with Earth

Optional Student Products:

- Poster
- Slide deck
- Sketch or blueprint
- Short written proposal
- Video presentation

Skills that help in this career



You do NOT need to be “perfect at science” to explore this field.

Many Aerospace Behavioral Scientists are: curious about human behavior, good listeners, interested in psychology, creative problem-solvers, calm under pressure, interested in space exploration, strong communicators, interested in teamwork and leadership.

Helpful High School Classes



- Psychology
- Biology
- Physics
- Statistics
- Computer Science
- Health Science
- Communication
- Engineering

Episode Reflections



1. What is one thing about Aerospace Behavioral Science that genuinely surprised you?
2. What career concept are you most curious to learn more about?
3. What skills or interests do you already have that aligns with a career in science, psychology or space exploration?

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