

Complete 5E Lesson Bundle

- **Lessons**
- **Activities**
- **Assessment**

SCROLL
to take a look inside!

HUMAN SPACE EXPLORATION 5E LESSON BUNDLE

- Teaching Timeline
- Grade 7-9

- Lessons
- Activities
- Assessment



The 5 E's



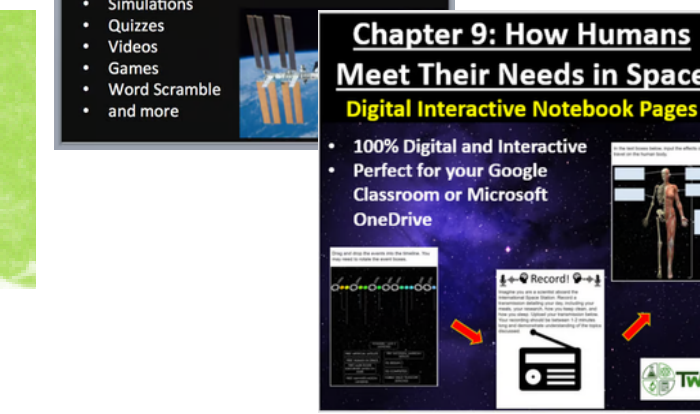
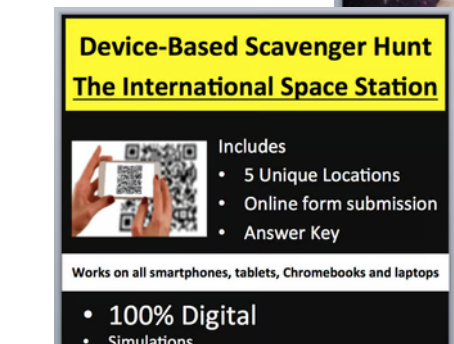
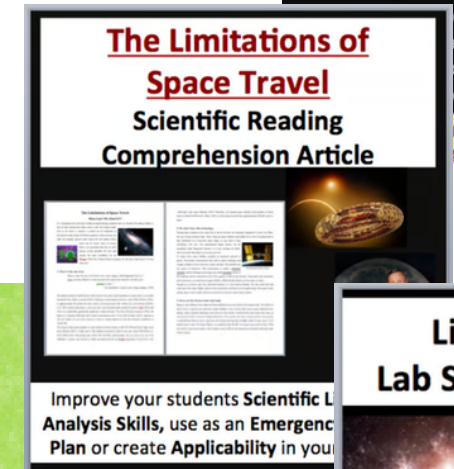
✓ **Engagement Phase** - Creates interest and excitement for your students by asking questions and probing their initial conceptions.

✓ **Exploration Phase** - Students use and develop creative thinking skills, make observations, record results, and make connections through an investigation → Lab Station Activity

✓ **Explanation Phase** - This is the instructional phase where concepts are presented to the students in a clear and applicable way → Lesson.

✓ **Elaborate Phase** - This phase involves the students completing an activity or assignment that forces them to expand their thinking and knowledge of the topic. They will propose solutions and extend their learning to new situations → Scavenger Hunt Activity

✓ **Evaluate Phase** - Your students will demonstrate their understanding and evaluate their own progress through an assessment → activity, assignment, or quiz.



MY 5E LESSON BUNDLES

SOLVE...

- ★ **Prep-time crunch** — ready-to-use slides, stations, hunts, and quiz cut planning to near zero.
- ★ **Engagement** — hands-on stations + device-based hunts keep students active and curious.
- ★ **Unit flow** — 5E structure (Engage → Evaluate) gives a coherent, day-by-day sequence.
- ★ **Assessment** — activities, assignments, and auto-graded quizzes, provide evidence of learning that is quick to mark.
- ★ **Differentiation** — multiple modalities + scaffolded activities and lessons support mixed abilities.



5E LESSONS PROVIDE DIFFERENTIATED INSTRUCTION IN THEIR VERY NATURE. BY THE END OF THIS BUNDLE, STUDENTS WILL:

- ✓ Investigate human space history.
- ✓ Learn about the current space program including the ISS and the role it plays in our understanding of space.
- ✓ Be able to describe how astronauts perform everyday activities such as showering, sleeping, eating, etc.
- ✓ Explain the negative effects of microgravity and what astronauts do to combat it.
- ✓ Think about the limitations of human space travel as well as possible long-term solutions.



1 Engaging Lesson

Life in Outer Space

How Humans Meet Their Needs in Space

- Human space history
- The ISS
- Obtaining O₂ and removing CO₂
- Eating in space
- Sleeping in space
- Showering and using the bathroom in space
- Experiments in space
- Getting sick in space
- The negative effects of microgravity
- Long-term solutions to life in space

Google Slides and PowerPoint Versions Included
Google Classroom Ready

Google Access

Thank you for your purchase. Clicking the link button below will automatically create a copy of the Google resources and place them into your Google Drive. You'll find the folder inside the 'Shared with me' section on the left side of your Drive.

Important: Before you click, make sure you're signed in to the Google account you'd like the resources placed into. If the resources are added to the wrong account, simply sign out and then into the correct one and repeat the process.

[Click here to place a copy of your resources into your Google account](#)

TWF

Google Classroom Ready
One-Click Google Slides Access

Sleeping In Space

- Each member has their own private sleeping area
- Since they are weightless, astronauts attach themselves to the wall, so they don't float around and bump into something

Videos embedded directly into the slides. One-click access.

Research, Research, Research

- The uniqueness of microgravity allows scientists to do many experiments and make discoveries they couldn't do on Earth

Some examples include:

- Discovery of Dark Matter
- Health Effects
- Cancer Research

Research, Research, Research

- The main reason for the ISS is research
- The uniqueness of microgravity allows scientists to do many experiments and make discoveries they couldn't do on Earth

Some examples include:

- Discovery of Dark Matter
- Health Effects
- Cancer Research

Teacher and Student Versions of the presentation

★★★★★ Extremely satisfied - My students really enjoyed this resource. I found it to be well rounded and touched on a range of subjects that kids really want to know about space (cue the ubiquitous question about space potties)!

4 Engaging Activities

✓ 1 Lab Station Activity with 7 Engaging Station Tasks

✓ 1 Digital Scavenger Hunt Activity

✓ 1 Reading Comprehension Activity

✓ 1 (Bonus) Digital Interactive Notebook

Life in Space Lab Station Activity



7 Lab Stations
out of the

Device-Based Scavenger Hunt The International Space Station



- Includes
- 5 Unique Locations
 - Online form submission
 - Answer Key

Works on all smartphones, tablets, Chromebooks and laptops

- 100% Digital
- Simulations
- Quizzes
- Videos
- Games
- Word Searches
- and more

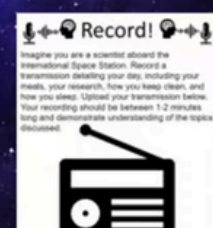
The Limitations of Space Travel Scientific Reading Comprehension Article



Improve your students **Scientific Literacy** and **Analysis Skills**, use as an **Emergency Substitute Plan** or create **Applicability** in your classroom

Chapter 9: How Humans Meet Their Needs in Space Digital Interactive Notebook Pages

- 100% Digital and Interactive
- Perfect for your Google Classroom or Microsoft OneDrive



Daily Teaching Schedule

Day-by-day teaching schedule so you'll know what to teach and when each day.

★★★★★ Extremely satisfied - Thank you so much for creating this resource. You obviously put a lot of time and effort into it. I am so grateful for your efforts to make life easier for me. We used this resource each bell. I loved the ease and ability to edit and modify for the needs of my group. Thanks so much

Human Space Exploration 5E Lesson

Grades 7-10	Humans Space Exploration	Ongoing Les
Lesson Objective: Students will: - Investigate human space history - Learn about the current space program including the ISS and the role of the ISS in the development of our scientific knowledge - Be able to describe how astronauts perform everyday activities such as eating, etc. - Explain the negative effects of microgravity and what astronauts do to stay healthy - Think about the limitations of human space travel as well as possible future		
Possible Student Misconceptions: - There is no gravity in space - The ISS is stationary - Human bodies are able to be in space long-term		
Materials: 1 device (smartphone, Chromebook, laptop, tablet, or computer) per student - A means of projecting a PowerPoint presentation - Internet access		
Teacher Notes: - All videos can be accessed directly from the PowerPoint. To retrieve them, click on the video icon while in slideshow mode and it will automatically open for you. If for some reason, right-click on the image and click Edit Hyperlink or something similar. I've created a video walkthrough if needed. It can be accessed here - https://youtu.be/cCikIP9SaDQ - I don't believe in long lessons. If you feel your students are losing the focus, stop the PowerPoint and give them a 5-minute break. If you'd like to see more of my video collection here - http://www.teachwithfergy.com are tons of brain-break videos to choose from all grouped by category.		

Human Space Exploration – 5E Lesson

Engagement Phase

Begin by having your students watch the video found here - <http://www.teachwithfergy.com/what-space-does-to-the-body/>

Once the video has finished, spark a class discussion around the space effects that your students found the most bizarre.

Teacher Notes:

- The video is about three minutes long
- If for some reason the video doesn't play, go to www.youtube.com and type in "What space does the human body DNews"

Exploration Phase

Exploration – Lab Station Activity

- In groups of 2-3, have your students complete **Exploration – Lab Station Activity**. Once they're done, they will submit their passport to you.

Teacher Notes:

- The complete instructions for my Lab Station activity can be found in the **START HERE – Instructions** file.

Explanation Phase

- The lesson can be found in the folder – "Explanation – Lesson"
- The lesson is designed to be completed over one - two days
- There are many embedded videos and plenty of opportunity to engage, interact and check for your students' understanding throughout the lesson

Teacher Notes:

- All videos can be accessed directly from the PowerPoint. To retrieve them, click on the video icon while in slideshow mode and it will automatically open for you. If they don't open, right-click the image and select **Edit Hyperlink** or something similar. I've created a video walkthrough if needed. It can be accessed here - <https://youtu.be/cCikIP9SaDQ>
- I have also enclosed a .PDF version of both the teacher and student versions

Elaborate Phase

Your students will complete – **Elaborate - Scavenger Hunt Activity**. This activity will require your students to move beyond what was covered directly in the lessons and allow them to demonstrate why their learning is so applicable and important.

Teacher Notes:

- Students will work in groups of two or three
- Each group will only require a single device (smartphone, tablet, Chromebook, laptop, etc.)

Evaluate Phase

Have your students complete - **Evaluate – Limitations of Space Travel reading**

Teacher Notes:

- The reading includes nine comprehension and extension questions
- These questions will allow you to evaluate the progress of your students
- The extension question will allow your students to delve deeper into the subject by performing some research and summarizing what they've learned

Duration: 1 hour

Teacher Role – Facilitate learning and keep students focused

Goal

- Students use their newly obtained knowledge to propose solutions and extend their learning to new situations

Duration: 45 - 60 min.

Teacher Role – Distribute and collect evaluation

Goal

- Students are given the opportunity to demonstrate their understanding and evaluate their own progress

Each Phase is Clearly Described

Editable and Interactive

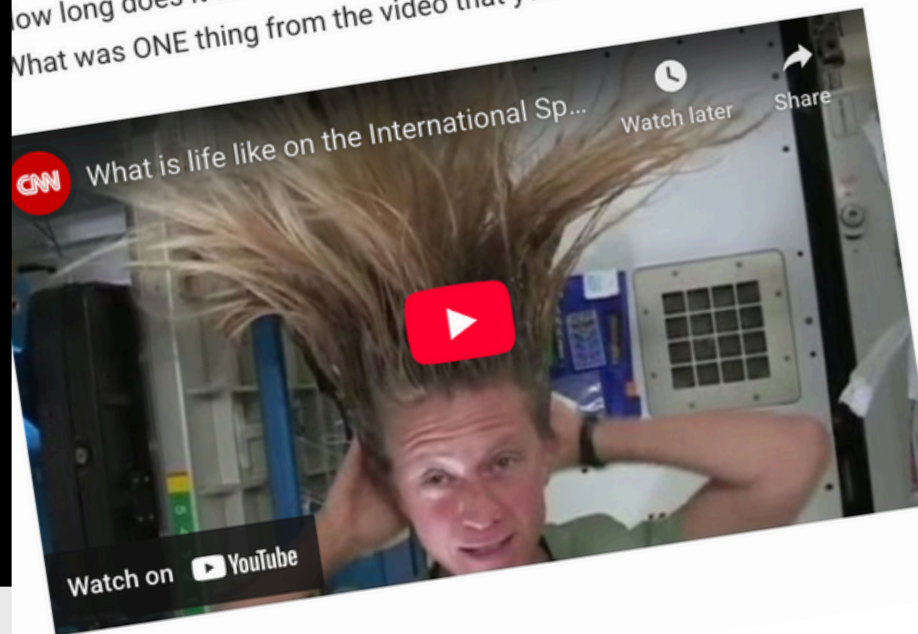
Office, Google,
and PDF Versions

Fully Editable



Scavenger Hunt – The ISS – Location 1

Video:
Watch the video below and answer the following questions.
International Space Station (ISS) orbits the Earth every _____ while
_____ at _____.
How many astronauts are ever on the ISS at one time and how long do they
stay? Can salt and pepper be in a solid form on the ISS like it is on Earth?
What do the astronauts spend most of their time doing aboard the ISS?
How long does it take to get back to Earth from the ISS?
What was ONE thing from the video that you didn't know before?



Interactive and engaging

Station 1

Get Hands-On – You are a member of the flight crew aboard the ISS and are writing home to tell your family about your first week in space. Tell them about life on the ISS, what you are working on and your plans for the next 2 months.

From the Lab Station
Activity

WHAT TEACHERS SAY

★★★★★ Extremely satisfied - The science resources I used supported all learners with hands-on activities, differentiated content, and real-world connections. They fostered curiosity, critical thinking, and accessibility, ensuring every student could thrive.



★★★★★ Extremely satisfied - My students loved this so much that I had to add an extra day to complete the lesson. The slides lead to GREAT questions and engaging conversations. This will be included every year!



★★★★★ Extremely satisfied - This allowed my students to grasp the content in a fun and engaging way!



★★★★★ Extremely satisfied - My students were very engaged as we worked through the activities and had multiple discussions on the topics. Nicely put together. Thanks!

★★★★★ Extremely satisfied - Thank you so much for creating this resource. You obviously put a lot of time and effort into it. I am so grateful for your efforts to make life easier for me. We used this resource each bell. I loved the ease and ability to edit and modify for the needs of my group. Thanks so much!

