

Space 5E Lesson BUNDLE

Engagement
Exploration
Explanation
Elaborate
Evaluate



Includes 6 Space 5E Lessons
Each 5E resource includes a teaching schedule, a lesson, and activities to engage your students.

Middle School Space 5E Bundle

1. Eclipse
2. Our Solar System
3. The Life and Death of Stars
4. The Moon and its Phases
5. Earth's Seasons
6. Human Space Exploration



A 5E Lesson Bundle
The Life and Death of Stars

- ✓ Engagement
- ✓ Exploration
- ✓ Explanation
- ✓ Elaborate
- ✓ Evaluate




A 5E Lesson Bundle
Our Solar System

- ✓ Engagement
- ✓ Exploration
- ✓ Explanation
- ✓ Elaborate
- ✓ Evaluate




A 5E Lesson Bundle
Eclipse

- ✓ Engagement
- ✓ Exploration
- ✓ Explanation
- ✓ Elaborate
- ✓ Evaluate




A 5E Lesson Bundle
Earth's Seasons

- ✓ Engagement
- ✓ Exploration
- ✓ Explanation
- ✓ Elaborate
- ✓ Evaluate




**Inside each 5E Lesson you
receive ...**

A 5E Lesson Bundle
The Moon and its Phases

- ✓ Engagement
- ✓ Exploration
- ✓ Explanation
- ✓ Elaborate
- ✓ Evaluate




A 5E Lesson Bundle
Human Space Exploration

- ✓ Engagement
- ✓ Exploration
- ✓ Explanation
- ✓ Elaborate
- ✓ Evaluate




Each phase is clearly described

Eclipse – 5E Lesson

Engagement Phase

Your students will watch the video *'What creates a solar eclipse?'* and complete the following:

1. Watch the video and answer the questions.

The video can be found here -
<https://www.youtube.com/watch?v=Qog18tiNngg>

Teacher Notes:

- The video is about 4 minutes long
- You may need to show the video more than once or pause when an answer is given to one of the questions.

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

PowerPoint Lessons

- The lesson is found in the folder – Explanation – Eclipse Lesson
- This lesson is designed to be completed over one day
- There are multiple embedded videos, a simulation, and plenty of opportunity to engage, interact and check for your students' understanding throughout the lesson
- The lesson covers the following topics:
 - Overview
 - Solar eclipse
 - Lunar eclipse

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/oCIKI9SaDQ>
- I have also enclosed a .PDF version of both the teacher and student versions.

<u>Elaborate Phase</u> Elaborate – Scavenger Hunt Your students will complete – <u><i>Elaborate – Scavenger Hunt</i></u>. This activity will require your students to move beyond what was covered directly in the lesson and allow them to further develop their understanding. Teacher Notes: - Students will work individually or in small groups - Students will need one device per group.	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
<u>Evaluate Phase</u> Quiz Have your students complete - <u><i>Evaluate – Eclipses Quiz</i></u> Teacher Notes: ➤ It's sometimes best to have the students peer evaluate ➤ Placing students in small groups and having them exchange papers to mark will accomplish two things 1) Provide immediate feedback on the questions they just completed 2) Significantly reduce your marking time ➤ Peer evaluation is not needed, only suggested when appropriate	Duration: 30 min Teacher Role – Distribute and collect evaluation Goal ☐ Students are given the opportunity to demonstrate their understanding and evaluate their own process.

One or more complete lesson(s)

Teacher and Student versions

Videos embedded right into
your slideshow

Blanks on student versions

High-Mass Stars

 Play Video

When Stars Go Boom!

- 8-25X larger than our Sun
- Consume their fuel very fast – die more quickly and more violently
- Star explodes creating a Supernova followed by a Neutron Star



Figure 8.30 The image on the left shows the supernova discovered by Ian Shelton. The image on the right shows the same area before the supernova.

High-Mass Stars

 Play Video

When Stars Go Boom!

- 8-25X larger than our Sun
- Consume their fuel very fast – die more quickly and more violently
- _____

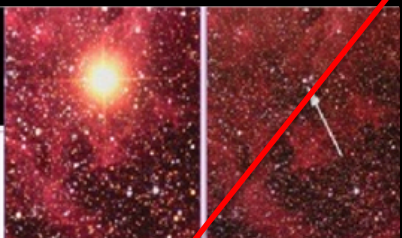
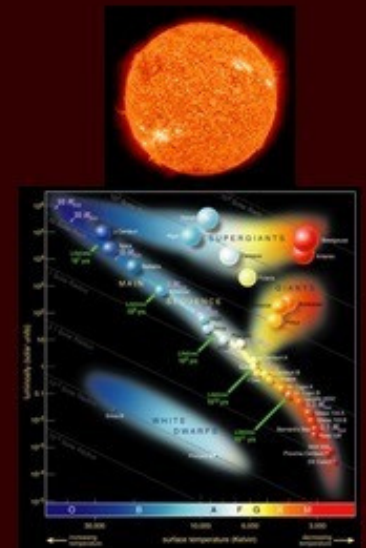


Figure 8.30 The image on the left shows the supernova discovered by Ian Shelton. The image on the right shows the same area before the supernova.

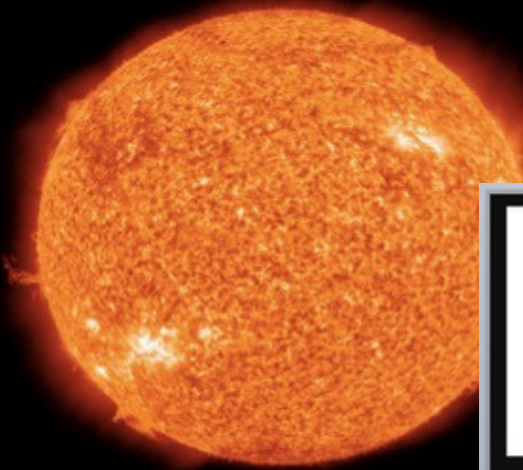
Space – The Life and Death of Stars

- A Star's beginning
 - Nebulas and Protostars
- Fusion
- Low-Mass Stars
- Intermediate-Mass Stars
 - Red Giants
- High-Mass Stars
 - Supernovas
 - Black Holes
- HR Diagram
 - Main Sequence Stars
- Inquiry Activities



Interactive and Engaging Activities

The Life and Death of Stars Lab Station Activity



7 Lab Station Activities to get y
out of their seats and engaged
learning

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

Device-Based Scavenger Hunt The Moon



Includes

- 5 Unique Locations
- Online form submission
- Answer Key

Works on all smartphones, tablets, Chromebooks and laptops

- **100% Digital**
- Simulations
- Quizzes
- Videos
- Games
- Word Scramble
- and more



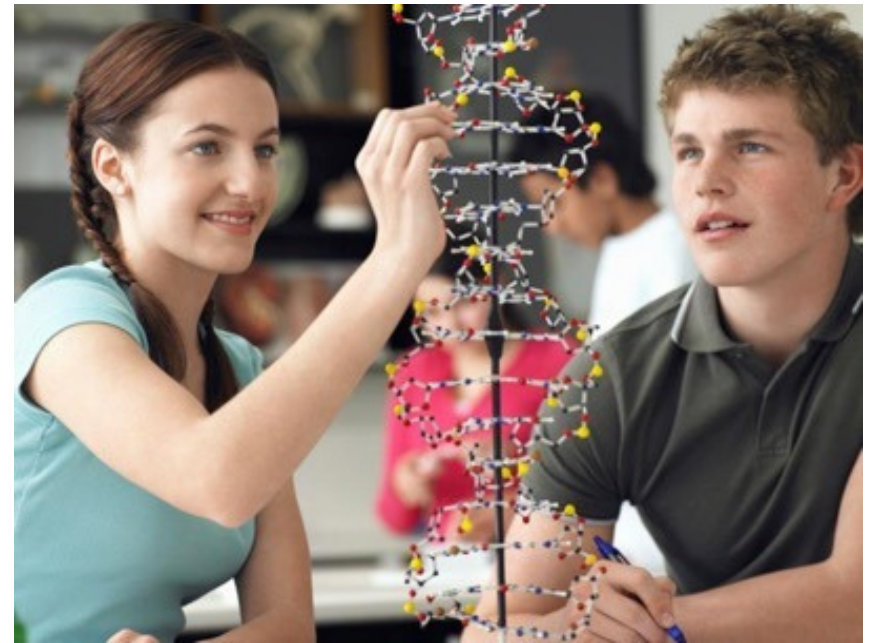
Inside my 5E Lessons you get

- 1 or more interactive lessons
- Scavenger Hunts
- Lab Station Activities
- Grade 5-7 Grade 8 and Up Readings Quizzes and more

Get away from tired practices and unengaged students



Provide a Scientifically-Proven means of instruction



Incorporate Technology and Increase Collaboration



**Save 45% by purchasing
this bundle**