

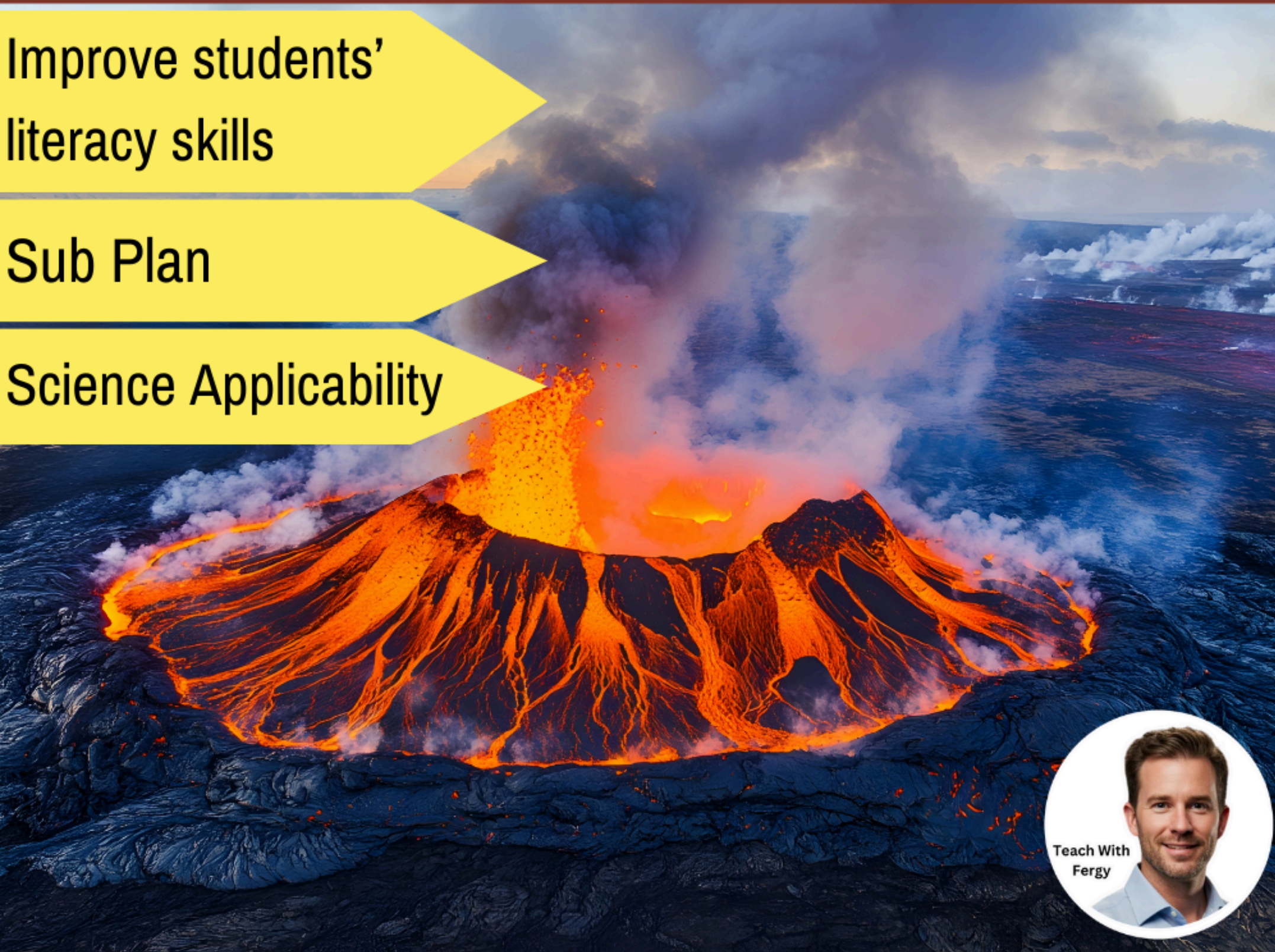
SUPERVOLCANOES AND MEGA-ERUPTIONS

6TH, 7TH, 8TH GRADE READING

Improve students'
literacy skills

Sub Plan

Science Applicability



Reading Comment



Extremely satisfied - Great resource to work on student reading comprehension and it tied into the topic I was teaching. My students have been struggling with reading and I've been incorporating more reading into my lessons. Thank you for the resource.



SCROLL

to take a look inside!

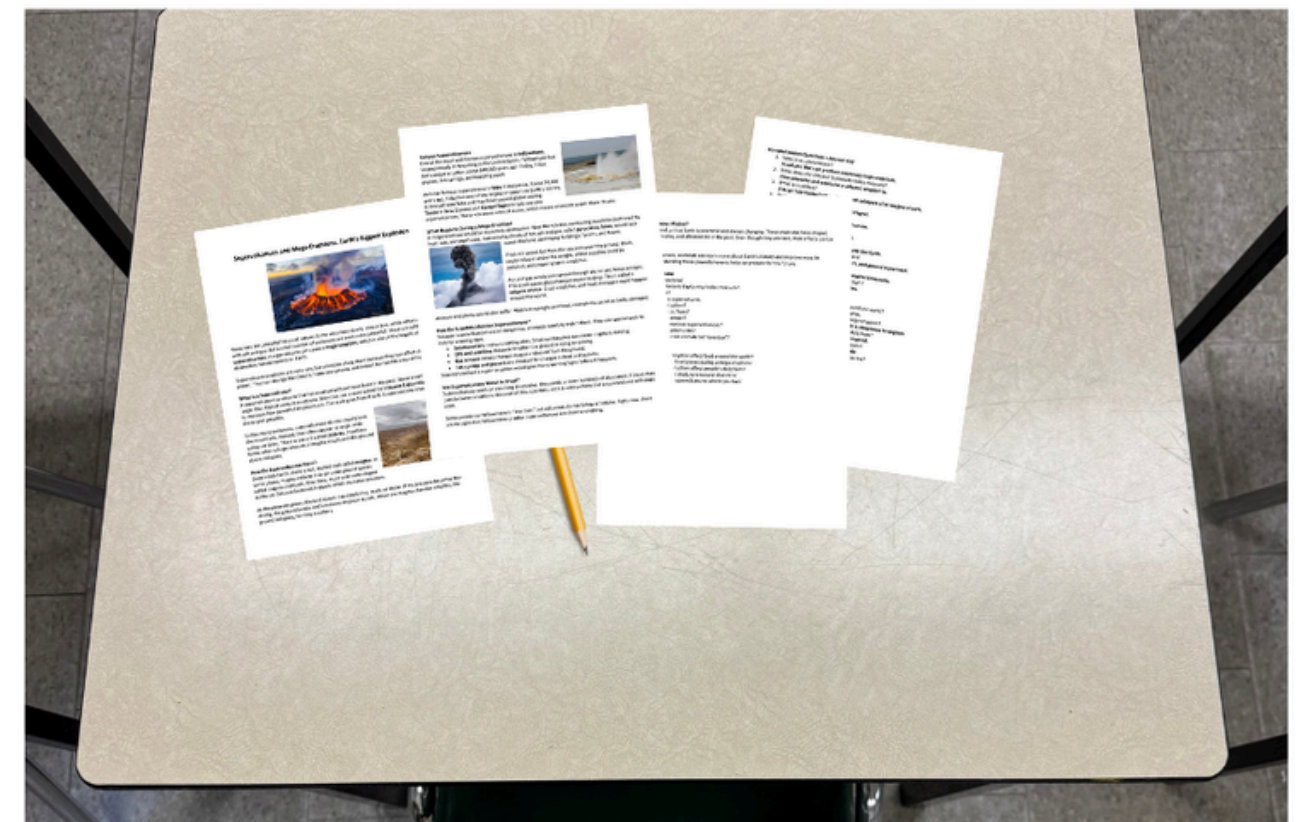


THE PROBLEMS YOU FACE

- Limited time to teach scientific literacy and strengthen students' reading and analysis skills.
- Need meaningful extension activities to engage fast-moving learners.
- Difficulty creating effective last-minute sub plans that still support student learning.

NO-PREP - PRINT/UPLOAD

- Questions and Answer Key
- **No Prep, Ready-to-Use:** Print or assign digitally with Google Docs, Microsoft Word, and PDF formats for flexible classroom use
- **Includes Varied Question Types:** Knowledge, thinking, connecting, application, and open-ended questions.



What Will Your Students Learn?

READING COMPREHENSION ARTICLE & QUESTIONS

- What Is a Supervolcano?
- How Supervolcanoes Form
- Calderas and Magma Chambers
- Famous Supervolcanoes Around the World
- What Happens During a Mega-Eruption?
- Pyroclastic Flows and Ash Clouds
- Volcanic Winter and Global Climate Effects
- Monitoring and Predicting Supervolcanoes
- Why Supervolcanoes Are Rare
- Why Supervolcanoes Matter

Article with
Comprehension
Questions

6th, 7th, 8th Grade

Print & Digital

Comprehension Questions

1. What is a supervolcano?
2. What does the Volcanic Explosivity Index measure?
3. What is a caldera?
4. Name a supervolcano.
5. What is a supervolcano?
6. What is a supervolcano?
7. What is a supervolcano?
8. How is a supervolcano different from a regular volcano?
9. Why are supervolcanoes so powerful?
10. Why are supervolcanoes so rare?

Extension Questions

1. How do supervolcanoes form?
2. Why are supervolcanoes so rare?
3. How do supervolcanoes affect the environment?
4. Why are supervolcanoes so powerful?
5. Why are supervolcanoes so rare?

Supervolcanoes and Mega-Eruptions: Earth's Biggest Explosions



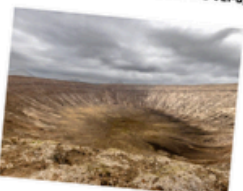
Volcanoes are powerful forces of nature. Some volcanoes slowly release lava, while others explode with ash and gas. But a small number of volcanoes are even more powerful. These are called **supervolcanoes**. A supervolcano can cause a **mega-eruption**, which is one of the largest and most destructive natural events on Earth.

Supervolcano eruptions are very rare, but scientists study them because they can affect the whole planet. They can change the climate, harm ecosystems, and impact human life around the world.

What Is a Supervolcano?

A supervolcano is a volcano that has erupted with extreme force in the past. These eruptions are much larger than typical volcanic eruptions. Scientists use a scale called the **Volcanic Explosivity Index (VEI)** to measure how powerful eruptions are. The scale goes from 0 to 8. A supervolcano eruption is a **VEI-8**, the largest possible.

Unlike many volcanoes, supervolcanoes do not usually look like mountains. Instead, they often appear as large, wide valleys or lakes. These areas are called **calderas**. A caldera forms when a huge amount of magma erupts and the ground above collapses.



How Do Supervolcanoes Form?

Deep inside Earth, there is hot, melted rock called **magma**. In some places, magma collects in large underground spaces called **magma chambers**. Over time, more and more magma builds up. Gas also becomes trapped, which increases the pressure.

Google Access

Thank you for your purchase. Clicking the link below will take you to the Google Drive link where you can find the document. Please click the link and follow the instructions to access the document.

Click here to place a copy directly into your Google Drive Account.

PDF



Your Reading

Supervolcanoes and Mega-Eruptions: Earth's Biggest Explosions



Volcanoes are powerful forces of nature. Some volcanoes flow with ash and gas. But a small number of volcanoes are even more powerful than typical volcanic eruptions. Scientists use a scale called the Volcanic Explosivity Index to measure how powerful eruptions are. The scale goes from 0 to 8, with 8 being the largest possible.

Supervolcano eruptions are very rare, but scientists study them to understand the planet. They can change the climate, harm ecosystems, and impact human life.

What Is a Supervolcano?

A supervolcano is a volcano that has erupted with extreme force. It is much larger than typical volcanic eruptions. Scientists use a scale called the Volcanic Explosivity Index to measure how powerful eruptions are. The scale goes from 0 to 8, with 8 being the largest possible.

Unlike many volcanoes, supervolcanoes do not usually look like mountains. Instead, they often appear as large, wide valleys or lakes. These areas are called **calderas**. A caldera forms when a huge amount of magma erupts and the ground above collapses.

How Do Supervolcanoes Form?

Deep inside Earth, there is hot, melted rock called **magma**. In some places, magma collects in large underground spaces called magma chambers. Over time, more and more magma builds up. Gas also becomes trapped, which increases pressure.

As the pressure grows, the land above may slowly rise, crack, and eventually erupt. When the ground collapses, forming a caldera.

Famous Supervolcanoes

One of the most well-known supervolcanoes is **Yellowstone**, located mostly in Wyoming in the United States. Yellowstone last had a major eruption about 640,000 years ago. Today, it has geysers, hot springs, and bubbling pools.



Another famous supervolcano is **Toba** in Indonesia. About 74,000 years ago, Toba had one of the largest eruptions in Earth's history. It created Lake Toba and may have caused global cooling.

Taupo in New Zealand and **Campi Flegrei** in Italy are also supervolcanoes. These volcanoes are still active, which means scientists watch them closely.

What Happens During a Mega-Eruption?

A mega-eruption would be extremely destructive. Near the volcano, everything would be destroyed by heat, ash, and explosions. Fast-moving clouds of hot ash and gas, called **pyroclastic flows**, would move across the land, destroying buildings, forests, and to the sea.



Thick ash would fall from the sky and cover the ground. This could collapse under the weight. Water supplies could be polluted, and power systems could fail.

Ash and gas would also spread through the air and be inhaled. This could cause global temperatures to drop. This is called **volcanic winter**. Crops could fail, and food shortages could occur around the world.

Animals and plants would also suffer. With less sunlight and food, ecosystems could be badly affected.

How Do Scientists Monitor Supervolcanoes?

Because supervolcanoes are so dangerous, scientists carefully watch them. They use special equipment to look for warning signs.

- **Seismometers** measure earthquakes. Small earthquakes can mean magma is moving.
- **GPS and satellites** measure whether the ground is rising or sinking.
- **Gas sensors** detect changes in gases released from the ground.
- **Hot springs and geysers** are checked for changes in heat and activity.

Scientists believe a super-eruption would give many warning signs before it happens.

Are Supervolcanoes About to Erupt?

Supervolcanoes work on very long timescales. Thousands or even hundreds of thousands of years pass between eruptions. Because of this, scientists say it is very unlikely that a supervolcano will erupt soon.

Some people say Yellowstone is "overdue," but volcanoes do not follow schedules. Right now, there are no signs that Yellowstone or other supervolcanoes are close to erupting.

Why Do Supervolcanoes Matter?

Supervolcanoes remind us that Earth is powerful and always changing. These eruptions have shaped the land, changed climates, and affected life in the past. Even though they are rare, their effects can be huge.

By studying supervolcanoes, scientists can learn more about Earth's history and improve ways to protect people. Understanding these powerful events helps us prepare for the future.

Comprehension Questions

1. What is a supervolcano?
2. What does the Volcanic Explosivity Index measure?
3. What is a caldera?
4. Name one famous supervolcano.
5. What is a mega-eruption?
6. What are pyroclastic flows?
7. What is a volcanic winter?
8. How do scientists monitor supervolcanoes?
9. Why are super-eruptions rare?
10. Why is Yellowstone not considered "overdue"?

Extension Questions

1. How could a super-eruption affect food around the world?
2. What would happen to airplanes during a mega-eruption?
3. How might a super-eruption affect people's daily lives?
4. Why is it important to study rare natural disasters?
5. Where is the closest supervolcano to where you live?

Comprehension Questions – Answer Key

1. What is a supervolcano?
A supervolcano is a volcano that can produce extremely large eruptions.
2. What does the Volcanic Explosivity Index measure?
The Volcanic Explosivity Index measures the power and explosiveness of a volcanic eruption.
3. What is a caldera?
A caldera is a large hole formed when the ground collapses after magma erupts.
4. Name one famous supervolcano.
Yellowstone, Toba, Taupo, or Campi Flegrei.
5. What is a mega-eruption?
A mega-eruption is a very large and powerful volcanic eruption.
6. What are pyroclastic flows?
Pyroclastic flows are fast-moving clouds of hot ash and gas.
7. What is a volcanic winter?
A volcanic winter is when ash blocks sunlight and cools the Earth.
8. How do scientists monitor supervolcanoes?
Scientists monitor supervolcanoes using seismometers, GPS, gas sensors, and hot springs/geysers.

Answer Key Included Office, Google, and PDF Versions

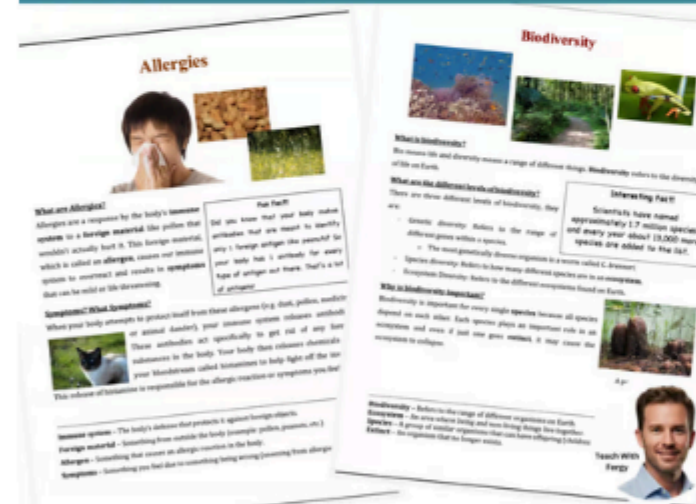


Comprehension and Extension Questions

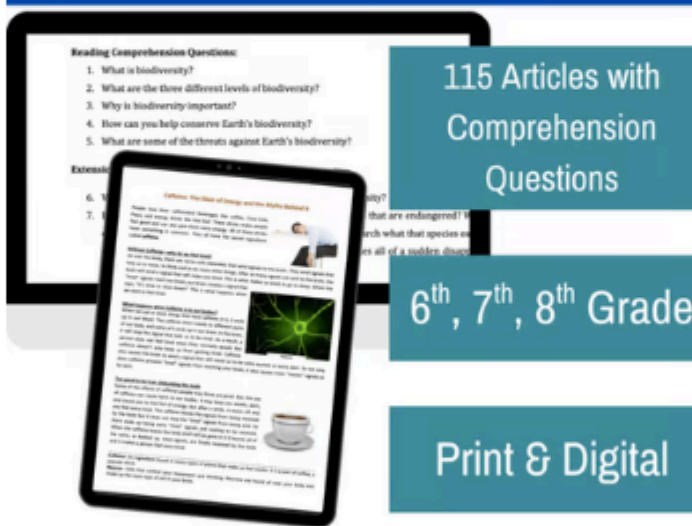
Upgrade to the 6th, 7th, and 8th Grade Reading Mega Bundle

Includes over 115 readings for students in grades 6, 7, and 8. The bundle covers all science topics and will save you over 75%.

READING COMPREHENSION ARTICLE & QUESTION MEGA BUNDLE 6TH, 7TH, 8TH GRADE



READING COMPREHENSION ARTICLE & QUESTION MEGA BUNDLE



CLASSROOM READY

- Questions and Answer Key
- **No Prep, Ready-to-Use:** Print or assign digitally with Google Docs, Microsoft Word, and PDF formats for flexible classroom use
- **Includes Varied Question Types:** Knowledge, thinking, connecting, application, and open-ended questions.



115 Articles with
Comprehension
Questions

6th, 7th, 8th Grade

Print & Digital



★★★★★ Extremely satisfied - So many comprehensive readings for all science fields. PDF and DOCX versions included so they can be edited if needed. Each one includes short answer questions at the end, the first set are easy to find the answers to in the readings, the second set require a bit more critical thinking. Includes an answer key. Great to use to fill in time or for sub plans.

6th, 7th, 8th Grade Reading Mega Bundle

Reading Comprehension Passage & Questions

- ✓ Over 115 Readings! Covers all Science Topics
- ✓ No Prep, Ready-to-Use Resource in Google and Office Format
- ✓ Includes Comprehension and Extension Questions



**Click to
learn more!**

As a special bonus, I want to send you a few resources that you can use in your classroom tomorrow. Completely free and geared towards what you teach!



Just  **and then choose what you teach!**

thanks
**for your interest
in this resource!**



 devon@teachwithfergy.com