

ROCKS AND THE ROCK CYCLE

Science Reading

Scroll Through

To take a peek inside!

Help students learn about Rocks and the Rock Cycle and test their comprehension with these easy to read science reading passages.

sedimentary Rocks

Big Idea Question: What are sedimentary rocks?

Rocks formed from other rocks or from the remains of living things like plants, called sedimentary rocks. These rocks are made up of layers and are often found on or near the surface of the Earth. There are three different types of sedimentary rocks (diagram 1): clastic, chemical, and organic.

Clastic sedimentary rocks are made up of small pieces of other rocks that have been transported to a new location. The size of the pieces of rock in the sediment and how far they traveled determine what type of rock is formed. Rocks deposited near the source are made up of larger particles, while those that travel a long distance can be smaller and more rounded. Angular, while those that travel a long distance can be smaller and more rounded.

- Conglomerate: Made up of rounded gravel-sized particles that have been cemented together.
- Breccia: Similar to a conglomerate, but the particles are angular gravel-sized.
- Sandstone: A rock made up of sand-sized particles, mainly quartz, compacted together.
- Siltstone: Made up of silt-sized particles that have been compacted together.
- Shale: Made up of fine-grained particles like clay and silt that have been compacted together.

Chemical sedimentary rocks are different than clastic. They are formed from dissolved minerals. The types of minerals classify them they are made up of chemical rocks are:

- Limestone: This rock is made of calcium carbonate. It can be formed from the remains of organisms with shells or from the precipitation of calcium carbonate from seawater.
- Dolomite: This rock is similar to limestone but primarily composed of magnesium carbonate.
- Chert: This is a hard, dense microcrystalline quartz formed from silica precipitated from the alteration of limestone by magnesium-rich groundwater.
- Evaporites: This rock forms when seawater or a salty lake evaporates, leaving behind salt or halite, gypsum, and anhydrite.

Organic sedimentary rocks form from the accumulation and hardening of organic material. They can also form from the precipitation of organic material. Organic sedimentary rocks are:

- Limestone: This rock contains the remains of dead organisms.
- Coal: A black or brownish-black rock composed primarily of carbonized plant material.
- Peat: A brownish-black material that is composed partially of decomposed plant material.
- Oil shale: A fine-grained rock that contains a high concentration of hydrocarbons.
- Oil shale: A fine-grained rock that contains a high concentration of hydrocarbons.
- Chalk: A soft, white rock that is a form of limestone composed of calcium carbonate.

Diagram 1: Types of Sedimentary Rocks

Clastic	Chemical
small pieces of other rocks that have been weathered and moved.	Formed from the precipitation of dissolved minerals.
	
Conglomerate	

Igneous Rocks

Big Idea Question: What are igneous rocks?

Igneous rocks are one of three main types of rocks. They are formed when melted rock, called magma, cools and turns solid. This can happen on the surface of the Earth when a volcano erupts or deep down inside the Earth's crust. There are two types of igneous rock, diagram 1, extrusive and intrusive, and they are determined by what the magma is made of, and how it cools determines the type of igneous rock.

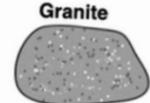
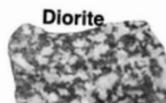
Extrusive igneous rocks are formed when magma comes out of a volcano and cools quickly. These rocks have tiny crystals or are glassy with no crystals at all. Some examples of extrusive rocks are:

- Basalt: A dark, fine-grained rock that is the most common type of volcanic rock. It often forms from lava flows and can be found on ocean floors and land.
- Pumice: A light-colored, porous volcanic rock formed from explosive volcanic eruptions. It is filled with small holes and can float on water.
- Andesite: A dark, fine-grained volcanic rock that is intermediate in composition between basalt and granite.

Intrusive igneous rocks are formed when magma cools slowly inside the Earth's crust. These rocks have large crystals that are easily seen with the naked eye. Some examples of intrusive rocks are:

- Granite: A light-colored, coarse-grained igneous rock often used in construction and monuments due to its durability.
- Diorite: A dark-colored, coarse-grained igneous rock commonly found in mountain ranges and used in construction.
- Gabbro: A dark-colored, coarse-grained intrusive rock often found in oceanic crust and used in construction and monuments.

Diagram 1: Types of Igneous Rocks

Extrusive	Intrusive
Magma cools quickly creating small to no crystals in the rocks.	Magma cools slowly creating large crystals you can easily see with your eyes.
	
Obsidian	Granite
	
Pumice	Diorite

ROCKS AND THE ROCK CYCLE

Science Reading

sedimentary Rocks

Big Idea Question: What are sedimentary rocks?

Rocks formed from other rocks or from the remains of living things like plants, shells, and bones are called sedimentary rocks. These rocks are made up of layers and are often found in desert areas. They are made on or near the surface of the Earth. There are three different types of sedimentary rocks (diagram 1): clastic, chemical, and organic.

Clastic sedimentary rocks are made up of small pieces of other rocks that have been weathered and transported to a new location. The size of the pieces of rock in the sediment and the distance they traveled determine what type of rock is formed. Rocks deposited near the source area can be large and angular, while those that travel a long distance can be smaller and more rounded. Some examples of clastic rocks from largest particles to smallest:

- Conglomerate: Made up of rounded gravel-sized particles cemented together.
- Breccia: Similar to a conglomerate, but the particles are angular.
- Sandstone: A rock made up of sand-sized particles.
- Siltstone: Made up of silt-sized particles that have been compacted and solidified.
- Shale: Made up of fine-grained particles like clay.

Chemical sedimentary rocks are different than clastic sedimentary rocks. They are formed from dissolved minerals. The types of minerals classify them. Examples of chemical rocks are:

- Limestone: This rock is made of calcium carbonate, which can be formed from the precipitation of calcium carbonate from seawater or from the remains of organisms with shells or from the precipitation of calcium carbonate from the atmosphere.
- Dolostone: This rock is similar to limestone but primarily composed of magnesium carbonate.
- Chert: This is a hard, dense microcrystalline quartz formed from the alteration of limestone by magnesium-rich groundwater.
- Evaporites: This rock forms when seawater or a salty lake dries up, leaving behind salt or halite, gypsum, and anhydrite.

Organic sedimentary rocks form from the accumulation and compaction of organic matter. They can also form from the precipitation of organic matter. Examples of organic sedimentary rocks are:

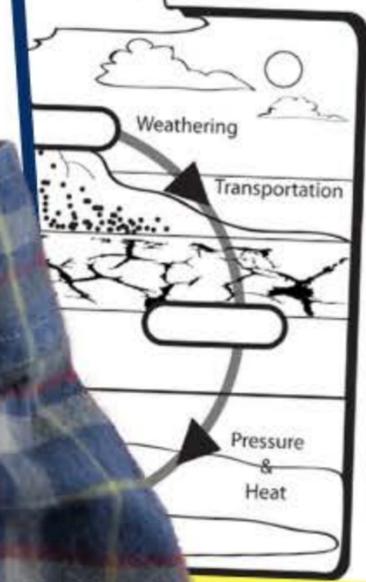
- Limestone: This rock contains the remains of dead organisms.
- Coal: A black or brownish-black rock composed primarily of carbon, formed from the accumulation and compression of plant material over time.
- Peat: A brownish-black material that is composed partially of plant matter and is found in wetlands and boggy areas, where the water slows down the decomposition of plant matter.
- Oil shale: A fine-grained rock that contains a high concentration of kerogen. When heated, it can be converted into oil and natural gas.
- Chalk: A soft, white rock that is a form of limestone composed of calcium carbonate. It is often found in large deposits once covered by the sea.

Diagram 1: Types of Sedimentary Rocks

Clastic	Chemical
small pieces of other rocks that have been weathered and moved.	Formed from the precipitation of dissolved minerals.
 Conglomerate	 Chert

Rock Cycle

Processes that rocks can undergo to be transformed into other rocks.



The diagram illustrates the rock cycle with the following processes: Weathering, Transportation, Pressure & Heat, and Melting. It shows how rocks can transition between different states: from igneous to sedimentary, sedimentary to sedimentary, sedimentary to metamorphic, metamorphic to metamorphic, metamorphic to igneous, and igneous to igneous.

Topics Included

- Sedimentary Rocks
- Igneous Rocks
- Metamorphic Rocks
- Rock Cycle

Why? SCIENCE READING PASSAGES?

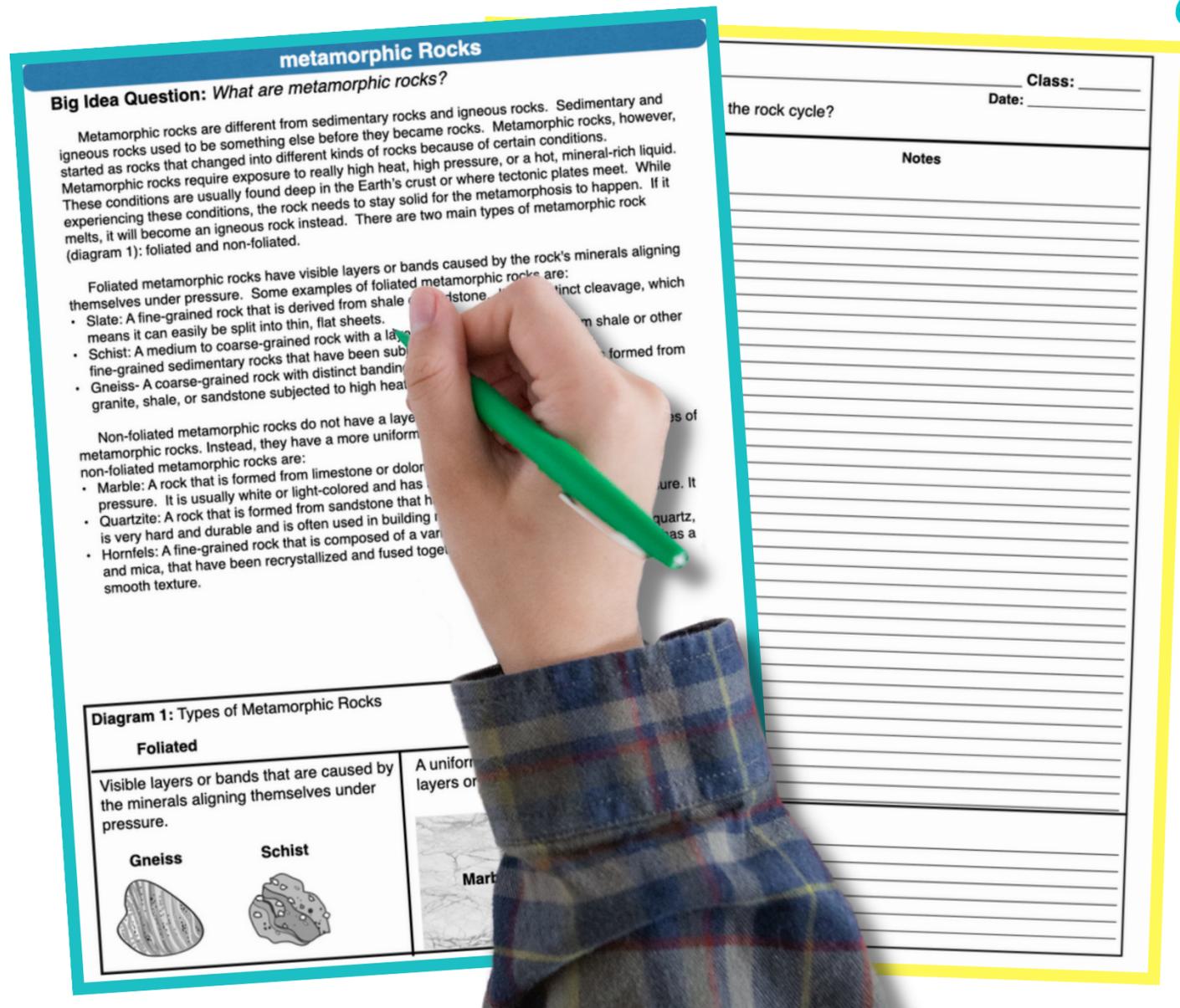
- ✓ Increase science literacy in the classroom
- ✓ Simple passages to help students comprehend the information
- ✓ Note-taking template to help students interact with the reading
- ✓ Worksheets to review and apply their knowledge
- ✓ Reinforcement task cards to continue their understanding



"This was a very easy no-prep lesson that I was able to use as a sub plan. My ESL and SPED students were able to understand the content and answer the questions accurately. Great resource! Well worth the price." -William A

ROCKS AND THE ROCK CYCLE

Science Reading



What Are *students* Doing?

- Marking the text**
- Filling in the guided note-taking template**
- Reviewing and applying their knowledge**
- Reinforcing their understanding**

Resource *includes*

- ✓ 4 Reading Passages
- ✓ 4 Note-taking guides
- ✓ 4 Comprehension Worksheets
- ✓ 4 Task cards
- ✓ Answer key
- ✓ Digital version

ROCKS AND THE ROCK CYCLE

Science Reading

Directions: 1. Read the information on the left. 2. Use the red circles on the left to identify key words. 3. Answer the questions and key details onto the right. 4. Write a one sentence synthesis statement that explains the big idea of the text.

Chemical sedimentary rocks continued:
Chert: This is a hard, dense microcrystalline quartz formed from silica precipitation from solution. It often forms from the accumulation of microorganisms like radiolarians and diatoms.
• Evaporites: This rock forms when seawater or a salty lake evaporates and leaves minerals like rock salt or halite, gypsum, and anhydrite.

Organic sedimentary rocks form from the accumulation and hardening of the remains of plants or animals. They can also form from the precipitation of organic material from water. Some examples of organic sedimentary rocks are:
• Limestone: This rock contains the remains of dead organisms.
• Coal: A black or brownish-black rock composed primarily of carbonized plant remains. It forms from the accumulation and compression of plant material over millions of years.
• Peat: A brownish-black material that is composed partially of decomposed plant material. It forms in wetlands and boggy areas, where the water slows down the decay process.
• Oil shale: A fine-grained rock that contains a high concentration of organic material, mainly in the form of kerogen. When heated, it can be converted into oil and gas.
• Chalk: A soft, white rock that is a form of limestone composed primarily of marine plankton's skeletal remains. It is often found in large deposits once covered by shallow seas.

Diagram 1: Types of Sedimentary Rocks

Clastic	Chemical	Organic
small pieces of other rocks that have been weathered and moved.	Formed from the precipitation of dissolved minerals.	Formed from the remains of plants and animals.
 Conglomerate	 Chert	 Shale

TOPIC Sedimentary Rocks **GUIDING QUESTION** What are sedimentary rocks?

QUESTION	KEY DETAILS
What are the different types of sedimentary rocks?	Add text

SYNTHESIS SENTENCE: (BIG IDEA OF THE TEXT)
Add text

HOW TO USE THE RESOURCE IN

3 simple steps

1

Print the PDF version, make copies, and hand out to students

2

Use the digital version by clicking the titles in the RED BOX to make your own copy (found at the end of the PDF)

3

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Interactive Digital Flip Book

Teachers Guide

What You Will Need To Get Started:

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Cell Energy Digital Flip Book Teacher

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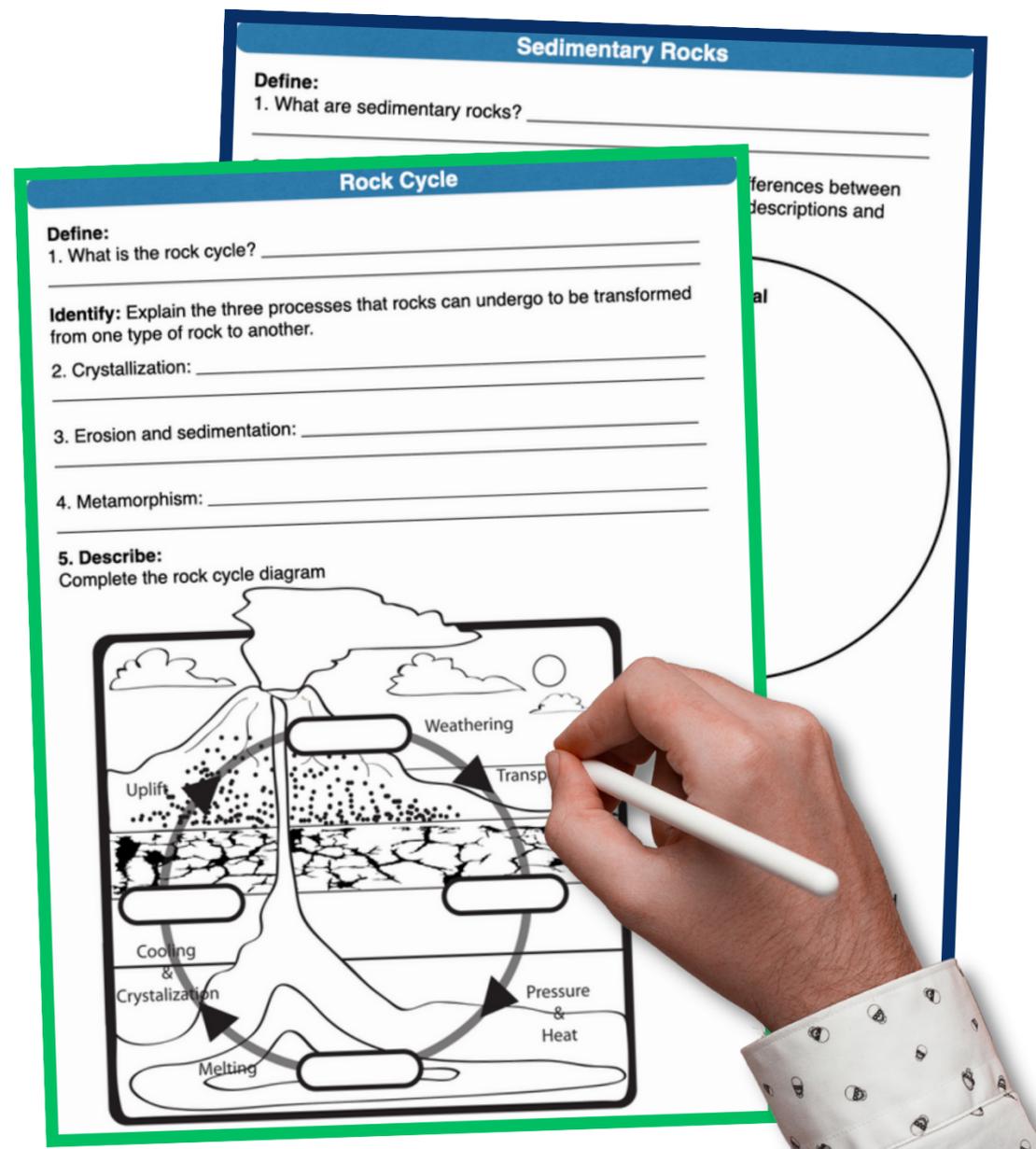
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ROCKS AND THE ROCK CYCLE

Science Reading



Check out what teachers just like you have said about these readings:



Great resource, love that it comes with note pages and annotated articles. Exactly what I needed for AVID close reading assignments and the level was perfect to help my students understand the material.



I really like the reading passages from this seller. The scaffold for the summary is great. Sometimes the complexity of the text is a little advanced for some of my students, but I will keep on using. Thanks



My school is working on increasing reading comprehension, so this resource was great for that goal!

Get Instant Access

Rocks & Rock Cycle Science Reading

Digital

metamorphic Rocks

Question: What are metamorphic rocks?

Print

Igneous Rocks

Big Idea Question: What are igneous rocks?

Igneous rocks are one of three main types of rocks. They are formed when melted rock, called magma, cools and turns solid. This can happen on the surface of the Earth when a volcano erupts or deep down inside the Earth's crust. There are two types of igneous rock, diagram 1, extrusive and intrusive, and they are determined by what the magma is made of, and how it cools determines the type of igneous rock.

Extrusive igneous rocks are formed when magma comes out of a volcano and cools quickly. These rocks have tiny crystals or are glassy with no crystals at all. Some examples of extrusive rocks are:

- Basalt: A dark, fine-grained rock that is the most common type of volcanic rock. It often forms from lava flows and can be found on ocean floors and land.
- Pumice: A light-colored, frothy volcanic rock formed from explosive volcanic eruptions. It is filled with small holes or pores and can float on water.
- Andesite: A gray or brown volcanic rock that is intermediate in composition between basalt and rhyolite. It is typically found in volcanic arcs and can form both lava flows and extrusive igneous rocks.
- Obsidian: A dark, glassy volcanic rock that is formed when lava cools too quickly for crystals to form. It is often used in jewelry and decorative objects.
- Tuff: A volcanic rock that is formed from the accumulation of ash and other volcanic material.
- Scoria: A dark, vesicular volcanic rock that is formed from the flow of solidified lava pieces and gas content. It is often used as landscaping material.

Intrusive igneous rocks are made of magma that has cooled slowly in the Earth's crust. These rocks have large crystals that you can see. Some examples of intrusive rocks are:

- Granite is a common intrusive rock that is used in construction due to its durability and attractive appearance.
- Diorite: A darker intrusive rock commonly found in construction.

4 Passages, Guided Notes, and Worksheets

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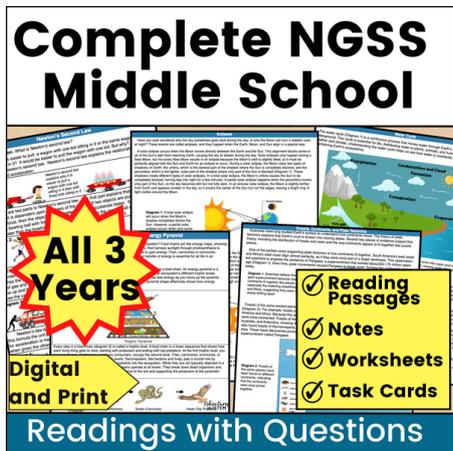
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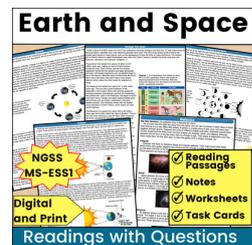
- ✓ Reading Passages
- ✓ Notes
- ✓ Worksheets
- ✓ Task Cards

Digital and Print

Readings with Questions

Earth Science Standards

Earth and Space



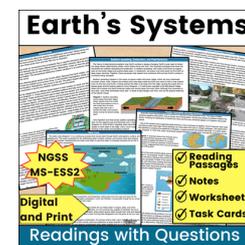
NGSS MS-ESS1

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Readings with Questions

Earth's Systems



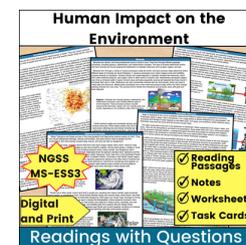
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- ✓ Notes
- ✓ Worksheets
- ✓ Task Cards

Digital and Print

Readings with Questions

Human Impact on the Environment



NGSS MS-ESS3

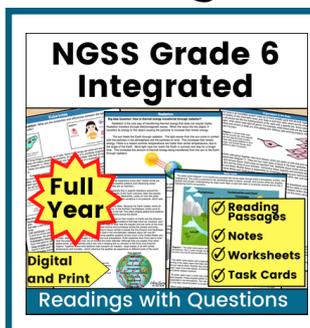
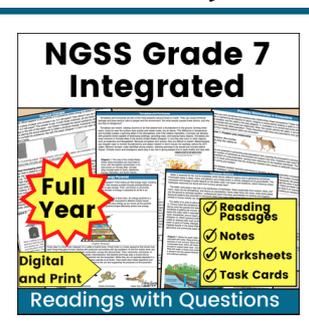
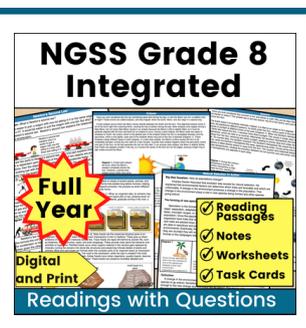
- ✓ Reading Passages
- ✓ Notes
- ✓ Worksheets
- ✓ Task Cards

Digital and Print

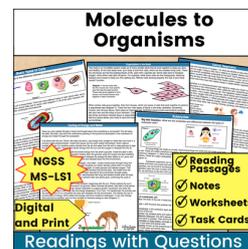
Readings with Questions

Life Science Standards

Integrated Model by Grade Level

<h3>NGSS Grade 6 Integrated</h3>  <p>Full Year</p> <ul style="list-style-type: none">✓ Reading Passages✓ Notes✓ Worksheets✓ Task Cards <p>Digital and Print</p> <p>Readings with Questions</p>	<h3>NGSS Grade 7 Integrated</h3>  <p>Full Year</p> <ul style="list-style-type: none">✓ Reading Passages✓ Notes✓ Worksheets✓ Task Cards <p>Digital and Print</p> <p>Readings with Questions</p>	<h3>NGSS Grade 8 Integrated</h3>  <p>Full Year</p> <ul style="list-style-type: none">✓ Reading Passages✓ Notes✓ Worksheets✓ Task Cards <p>Digital and Print</p> <p>Readings with Questions</p>
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Molecules to Organisms



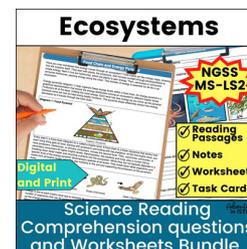
NGSS MS-LS1

- ✓ Reading Passages
- ✓ Notes
- ✓ Worksheets
- ✓ Task Cards

Digital and Print

Readings with Questions

Ecosystems



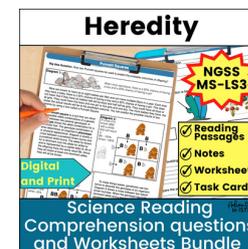
NGSS MS-LS2

- ✓ Reading Passages
- ✓ Notes
- ✓ Worksheets
- ✓ Task Cards

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Heredity



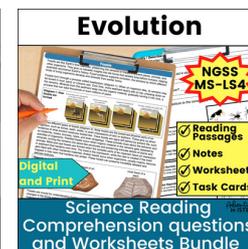
NGSS MS-LS3

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- ✓ Worksheets
- ✓ Task Cards

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Evolution



NGSS MS-LS4

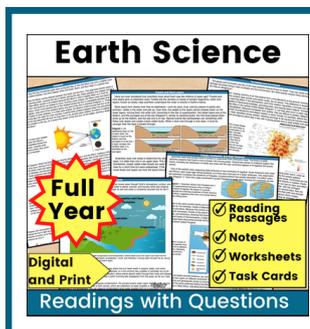
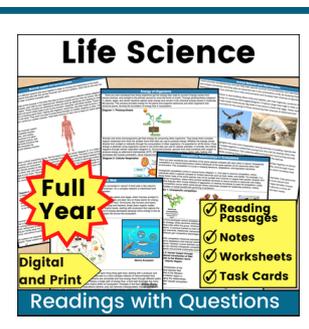
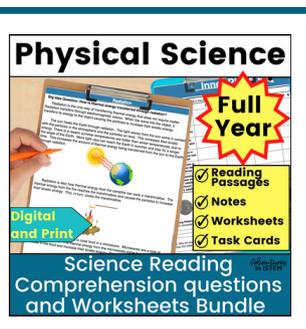
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- ✓ Worksheets
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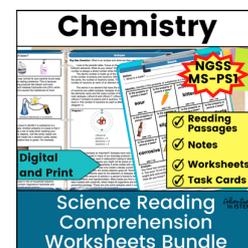
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Physical Science Standards

Alternative Model by Topic

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Chemistry



NGSS MS-PS1

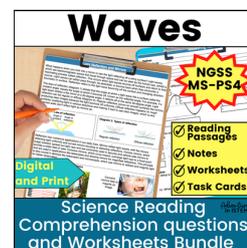
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- ✓ Notes
- ✓ Worksheets
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Digital and Print

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Chemistry also includes thermal energy

Waves



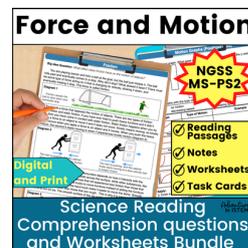
NGSS MS-PS4

- ✓ Reading Passages
- ✓ Notes
- ✓ Worksheets
- ✓ Task Cards

Digital and Print

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Force and Motion



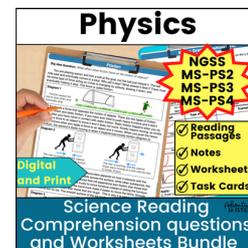
NGSS MS-PS2

- ✓ Reading Passages
- ✓ Notes
- ✓ Worksheets
- ✓ Task Cards

Digital and Print

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Physics



NGSS MS-PS2, MS-PS3, MS-PS4

- ✓ Reading Passages
- ✓ Notes
- ✓ Worksheets
- ✓ Task Cards

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Science Reading Comprehension questions and Worksheets Bundle

Physics includes mechanical energy



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