

Geologic Time Scale

Interactive Lesson

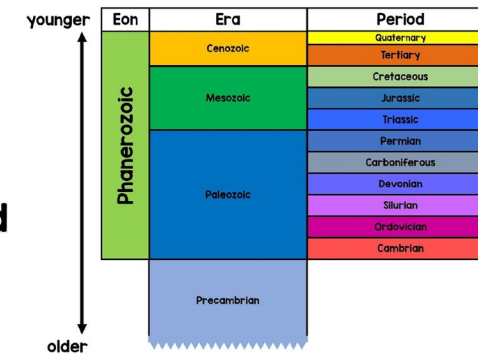
PRINT and DIGITAL

Geologic Time Scale

Based on their current evidence, scientists have created a system used to represent Earth's history. This is the Geologic Time Scale.

Divided into:

- eons
- eras
- periods
- can be divided further into epochs and ages



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Compatible with Google Slides and PPT

By determining the ages of rocks, fossils, and events, scientists can **better understand how the Earth has changed** over time, how different species change over time, and how past events have **molded the planet.**



A key is also included!

How to the correct answer. ←

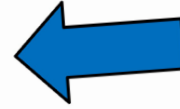
Most of the animals in the Paleozoic Era lived in water.

True

False

Drag and Drop

Drag the arrow to the
correct answer.



Humans were dominate in the
Paleozoic Era.

True

False

Drag the circle to the correct response.

The dominant plant in the
Mesozoic Era was the:

- simple mosses
- ferns
- algae
- cone-bearing



Type in the Text Box

In the text box below, describe why you think eras end.

Type here.

In the text boxes below, in the 1st Column, type in what you already KNOW about the geologic time scale. In the 2nd column, type in what you WANT to learn about the geologic time scale. The last column will be completed at the end of the lesson (what you've learned).

Last Slide

K	W	L
• Type here.	• Type here.	

and more!

Click [here](#) to learn more about the Cenozoic Era.

In the text box below, describe the most interesting thing you learned about the Cenozoic Era.

Type here.

Complete the following four corners vocabulary activity.

Using the drawing tools, create an illustration of the geologic time scale. You may also copy and paste an image from another source.

Write a sentence using the term geologic time scale.

Type here.

Geologic Time Scale

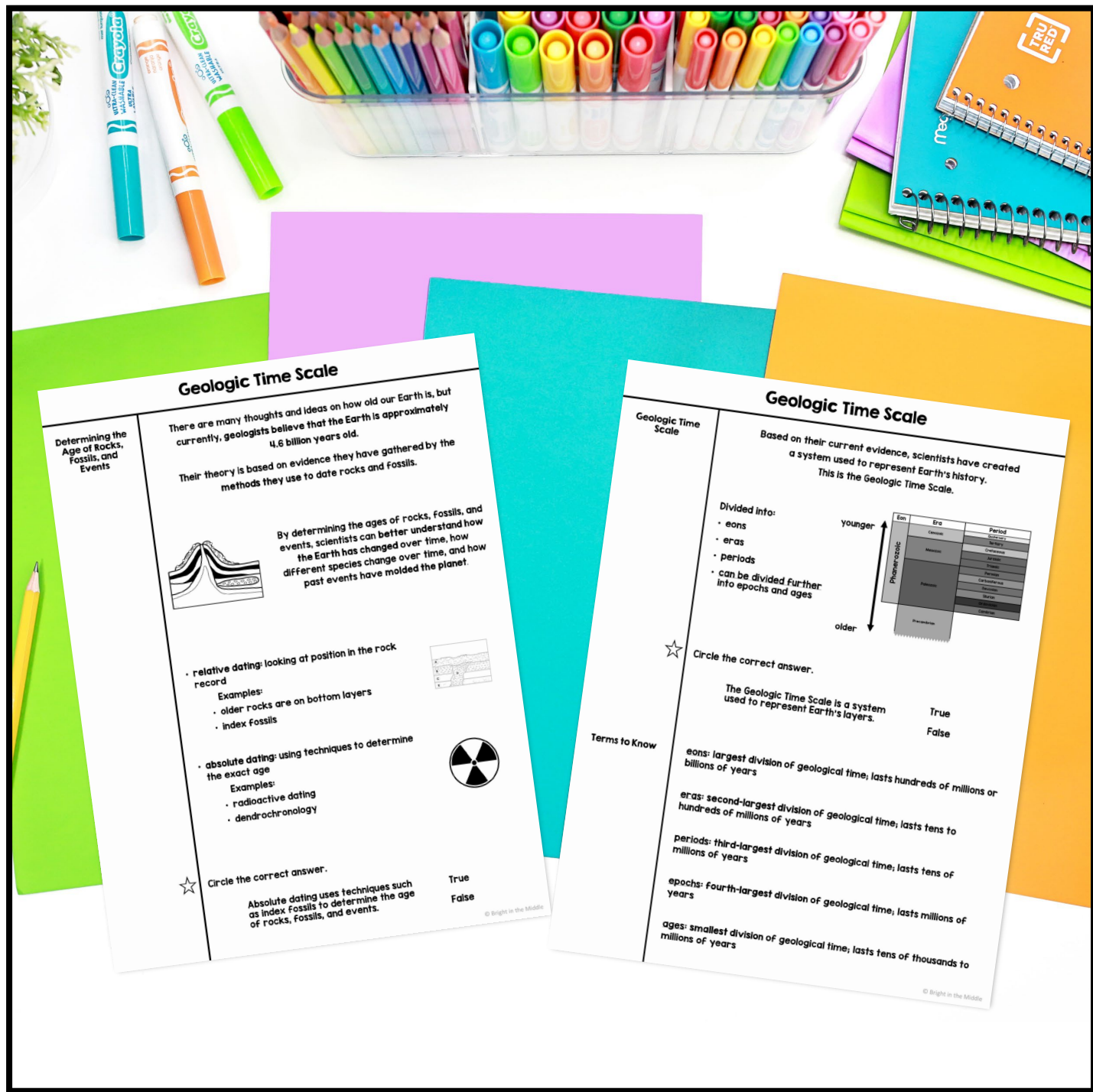
Write the definition of the term geologic time scale.

Write some words related to the term geologic time scale.

Type here.

Type here.

A paper version is also included with interactive activities embedded.



Guided Cornell notes are included as well!

Geologic Time Scale

<p>Geologic Time Scale</p>	<p>Based on their evidence, scientists have created a system used to represent Earth's history. This is the Geologic Time Scale.</p> <p>Divided into:</p> <ul style="list-style-type: none"> • • eras • periods • can be divided further into epochs and ages
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younger

↑

older

↓

Eon	Era	Period
Phanerozoic	Cenozoic	Quaternary Tertiary
	Mesozoic	Cretaceous Jurassic Triassic
Paleozoic	Carboniferous Permian Silurian	Devonian Ordovician Cambrian
Proterozoic		

☆ Circle the correct answer.

The Geologic Time Scale is a system used to represent Earth's layers.

True

False

<p>Terms to Know</p>	<p>eons: largest division of time; lasts hundreds of millions or billions of years</p> <p>eras: second-largest of geological time; lasts tens to hundreds of millions of years</p> <p>periods: third-..... division of geological time; lasts tens of millions of years</p> <p>epochs: fourth-largest division of geological time; millions of years</p> <p>ages: smallest division of geological time; lasts of thousands to millions of years</p>
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Ways to Use Digital Interactive Lessons

Science digital interactive lessons are a great way to teach or review science content with your students for many reasons.

They are fun. They are engaging. Another reason, which I think is the most important, is that they help decrease the cognitive load. The way that digital interactive lessons are set up is first, a little bit of content, and then practice with that content, and repeat the process.

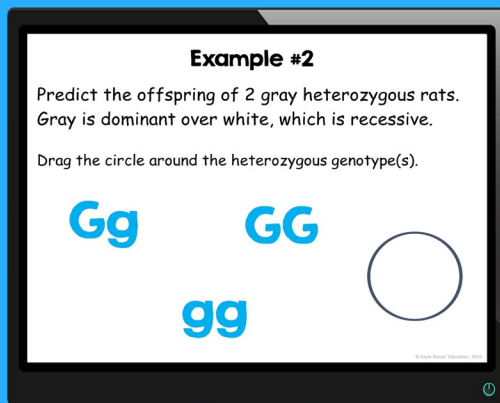
Students can digest small chunks of information a little at a time, apply that information, and then learn more! This will help keep their attention.

So, now, what are some ways that you can use them in your middle school science classroom?



Individual Learning

One way that interactive lessons can be used in the classroom is just for individual learning. These are digital lessons, so students can pull up the lesson on their computer, either via Google Classroom, Microsoft Teams, PowerPoint, or whatever you use in your classroom.



Students read through the lessons themselves and **work through the practice** at their own pace.

The benefits of doing this are that students can work at their own pace and you, as the teacher, can walk around the classroom as they are learning to answer any questions that they have. In addition, you can see what that particular student is learning. As you walk around the room and view their work, you can use it as a formative assessment to see if they are understanding the material.

You can also bump it up a notch. Since students will be working using the computer, you can embed related YouTube videos in the lesson for extra enrichment!

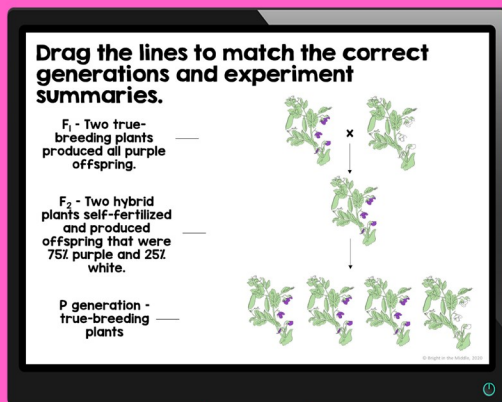
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Lessons
for

INDIVIDUAL LEARNING



Distance Learning

Digital interactive science lessons are a great tool to use for individual learning at a distance for the middle school science classroom.



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DISTANCE LEARNING

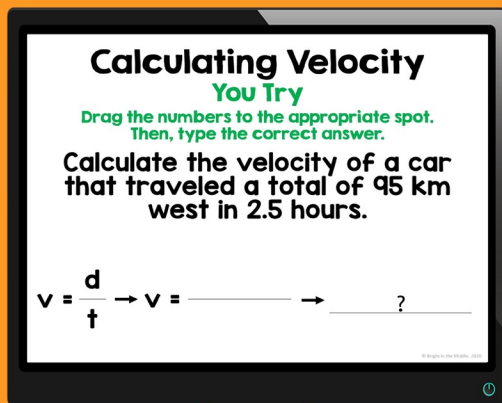
Students can read through the material, and after digesting chunks at a time, they can apply the information with embedded practice slides.

After completing the lessons, students can submit their work to their teacher.



Small Groups/ Partners

This works similarly to having students working as individuals except that students have the opportunity to work with one another. I think that this an awesome approach to differentiated learning in the classroom.



In small groups, or in partners, students are able to read the lesson together, discuss each practice slide, and apply the information together.

I prefer this method in many ways because I believe in the power of cooperative learning. As a teacher, you still have the opportunity to walk around and help the individual students as needed, but students also have each other for support.

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**SMALL GROUPS/
PARTNERS**



Direct Instruction

As mentioned, digital interactive lessons are set up as a lesson with embedded practice to help decrease the cognitive load. If teachers choose to, they can pull up the lesson and teach it to their students and still take pieces of content and digest them bit by bit.



For example, when teaching about **pedigree charts**, the teacher can first discuss what a square and a circle represent in a pedigree chart.

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for

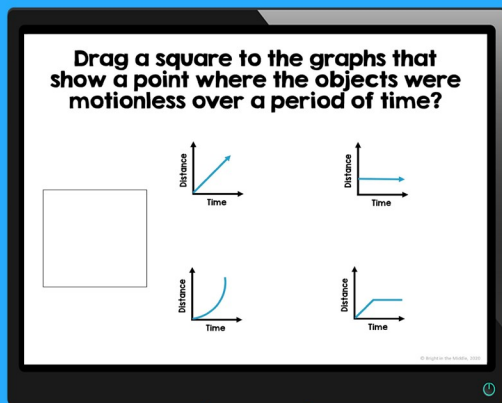
DIRECT INSTRUCTION

After students digest this material, the teacher can ask students to discuss how they will remember this information and then apply the information in practice.



Science Centers

Digital interactive science lessons can be used in one of two ways for science centers. First, science centers on a particular topic. For example, say you are teaching distance-time graphs, and you are ready for students to complete science centers on this topic. You can have a center for a [digital interactive lesson](#) (make groups in Google Classroom, or another platform), [task cards](#), [story match](#), and a reading passage.



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SCIENCE CENTERS

Another way that you can use interactive science lessons for science centers is only using digital interactive lessons. Time to review for a [genetics](#) test? You can have stations set up where students will move around the room.

They can work through individual lessons such as Gregor Mendel and an Introduction to Genetics, Asexual and Sexual Reproduction, Mitosis and the Cell Cycle, Meiosis, Punnett Squares, Pedigree Charts, and Variation of Traits and Genetics Disorders. This route may take more than one day. It just depends on how long your classes are and how much time you can devote to review. I personally like the first approach to using digital interactive lessons as a science center.



For ELL Students

With technology, there are so many awesome opportunities for students that do not speak English as their primary language to learn science content in schools that speak predominantly English. That goes vice versa as well. If you are trying to learn in any language you are unfamiliar with, technology is here to help!



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ELL STUDENTS

There are many options that students can use to learn science material. As a teacher that only speaks English, you can imagine how difficult it is to teach a student that speaks another language. I'm sure there are other teachers out there with the same dilemma.

With technology, I have been able to give my students the science lesson and have them use Google translate in order to understand what the lesson is saying. Now, I'm working on creating digital science lessons in Spanish, so that one step is taken out.



Enrichment/ Tutoring

I know that many schools set up a time during the day just for enrichment/tutoring.



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**ENRICHMENT/
TUTORING**

Many schools only set up this time for reading/math, but some do science too! Especially those that test in science. Interactive lessons are a great way to review standards-based science material and practice!

