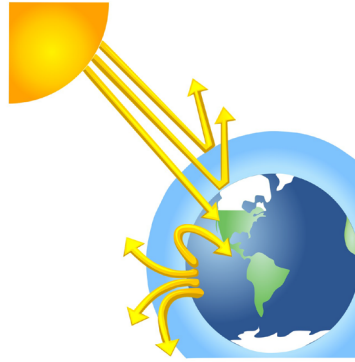


The Greenhouse Effect

- The Sun shines down on Earth.
- Some of the rays are reflected and some are absorbed by the atmosphere.



© Bright in the Middle, 2020

Greenhouse Effect and Global Warming Interactive Lesson

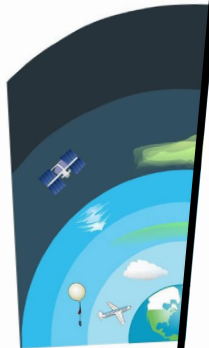
PRINT and DIGITAL



Compatible with Google Slides and PPT

A key is also
included!

Atmosphere
mixture of gases
surrounds



[Click here to read about The Keeling Curve, and then answer the question below.](#)

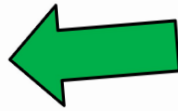
The Keeling Curve is a graph that represents the concentration of what in Earth's atmosphere?:

- ☐ oxygen levels
- ☐ all greenhouse gases
- ☐ photosynthesis
- ☐ carbon dioxide

© Bright in the Middle



Drag the arrow to the correct answer.



Carbon dioxide is an example of a greenhouse gas.

True

For

Drag the circle to the correct response.

All of the following apply to a greenhouse except:

- ☐ helps plants grow out of season
- ☐ they cause global warming
- ☐ allow for the maintenance of temperature that's suitable for plants
- ☐ can keep plants warm at night



© Bright in the Middle, 2020

Drag and Drop



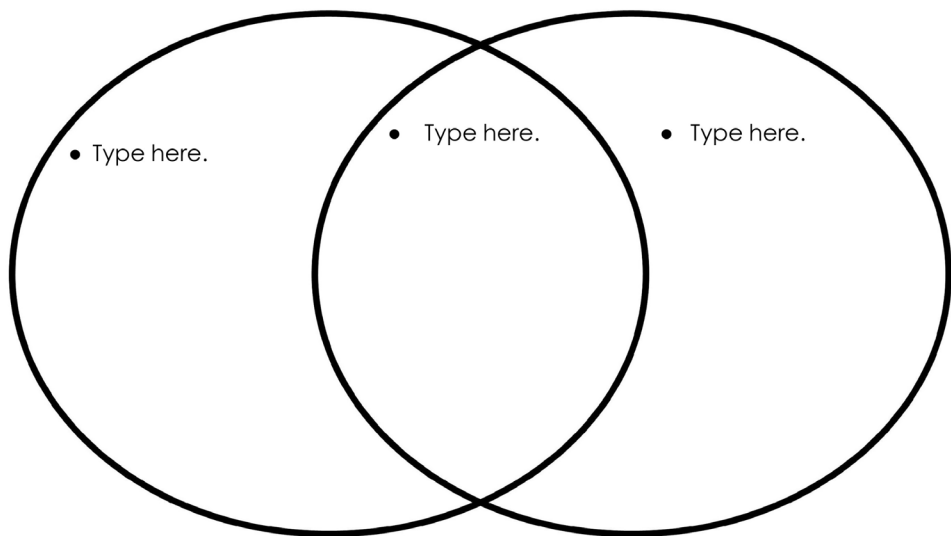
What if the Earth did not have an atmosphere? Type your answer in the text box below.

Type here.

In the diagram below, compare the greenhouse effect and global warming.

greenhouse effect

global warming



© Bright in the Middle, 2020

**Type in the
Text Box**



- The Earth needs a balance of these greenhouse gases in order to maintain the right temperature.

- Scientists have noticed a rise in the average global temperature, by a little more than 1°C, since 1880.

- This gradual increase of the overall temperature is called global warming.



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

Last Slide

K

W

L

• Type here.

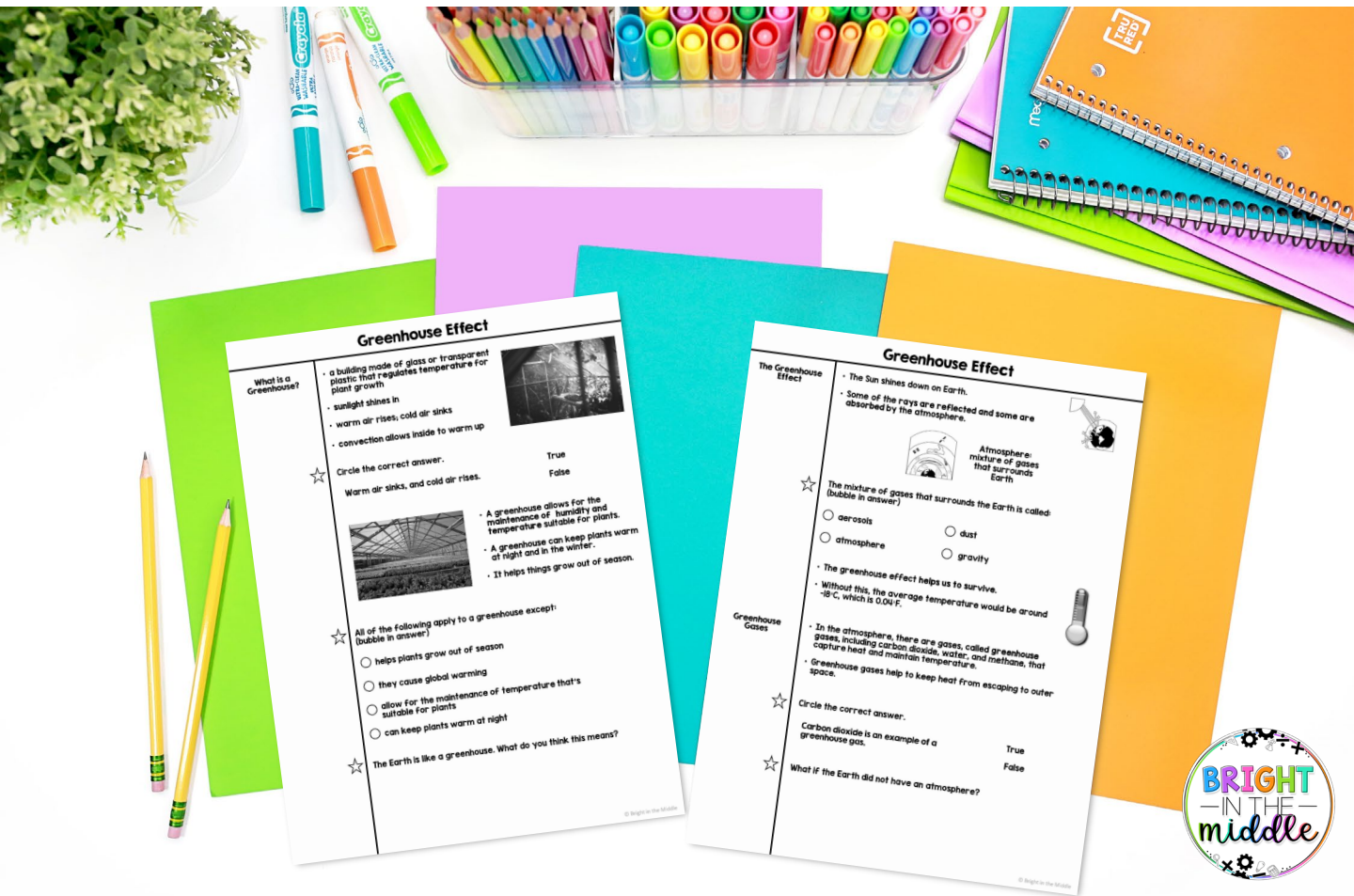
• Type here.

© Bright in the Middle, 2020

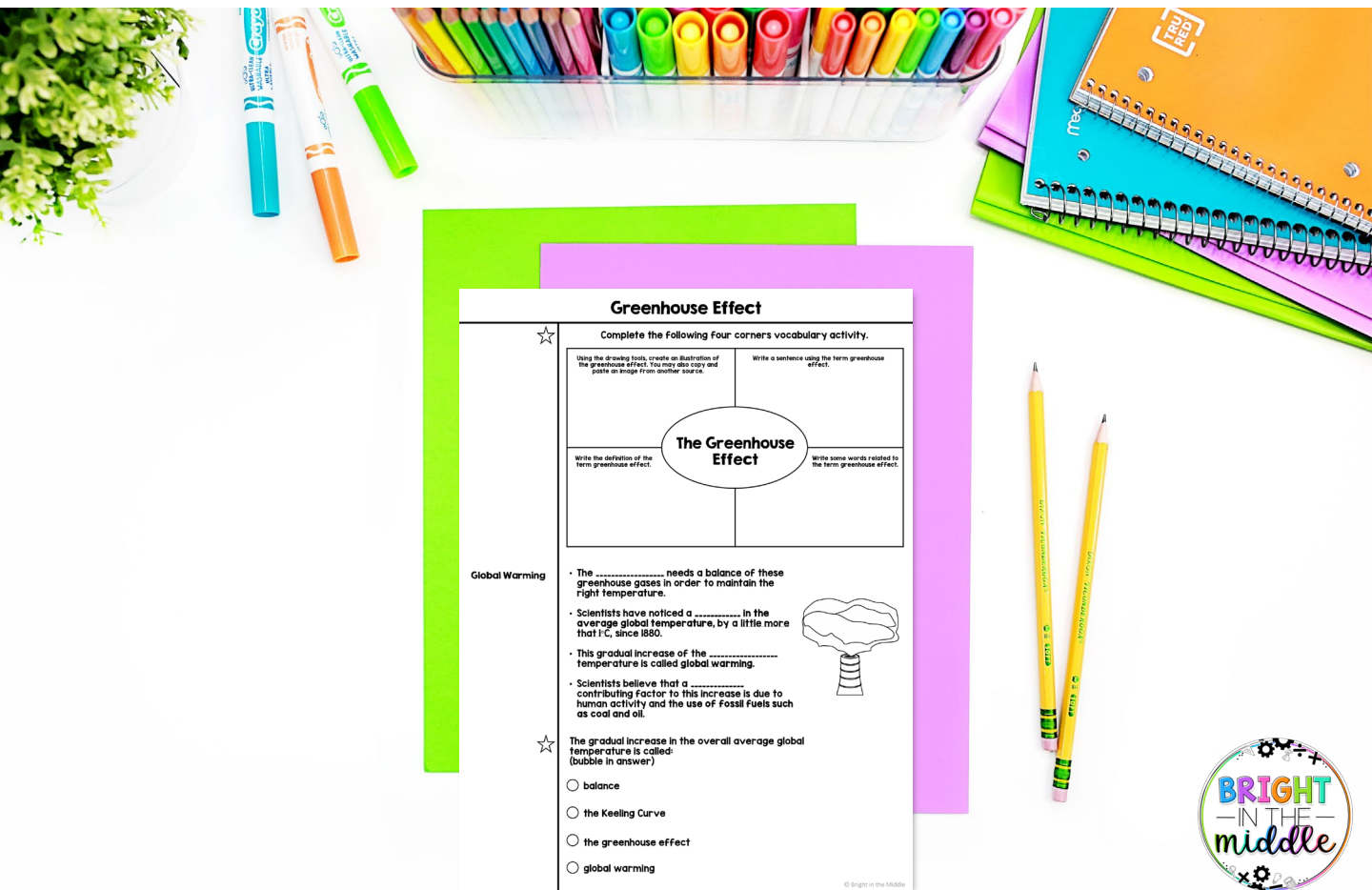
and more!



A paper version is also included with interactive activities embedded.



Guided Cornell notes are included as well!



Greenhouse Effect

Complete the following four corners vocabulary activity.

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

Write a sentence using the term greenhouse effect.

Write the definition of the term greenhouse effect.

The Greenhouse Effect

Write some words related to the term greenhouse effect.

Global Warming

- The needs a balance of these greenhouse gases in order to maintain the right temperature.
- Scientists have noticed a in the average global temperature, by a little more than 1°C, since 1880.
- This gradual increase of the temperature is called global warming.
- Scientists believe that a contributing factor to this increase is due to human activity and the use of fossil fuels such as coal and oil.



☆ The gradual increase in the overall average global temperature is called (bubble in answer)

- ☐ balance
- ☐ the Keeling Curve
- ☐ the greenhouse effect
- ☐ global warming



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.

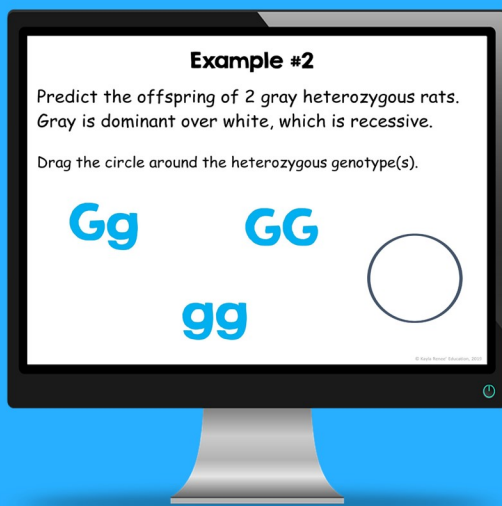
Students can digest small chunks of information a little at a time, apply that information, and then learn more! This will help keep their attention.

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.



**Digital Science
INTERACTIVE
Lessons**
for

INDIVIDUAL LEARNING

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

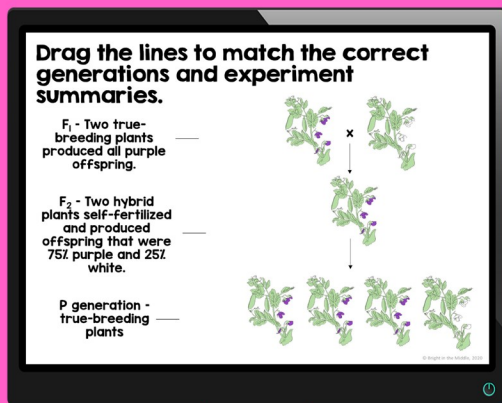
The benefits of doing this are that students can work at their own pace and you, as the teacher, can walk around the classroom as they are learning to answer any questions that they have. In addition, you can see what that particular student is learning. As you walk around the room and view their work,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



Distance Learning

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



**Digital Science
INTERACTIVE
Lessons**
for

DISTANCE LEARNING

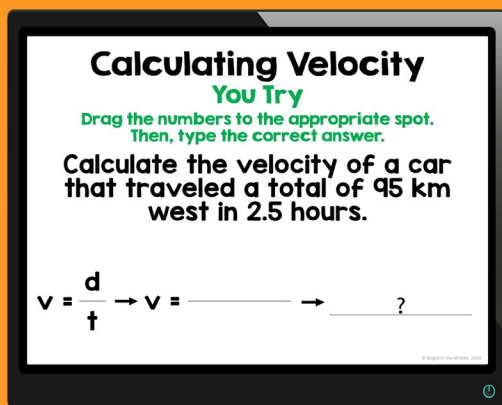
Students can read through the material, and after digesting chunks at a time, they can apply the information with embedded practice slides.

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.

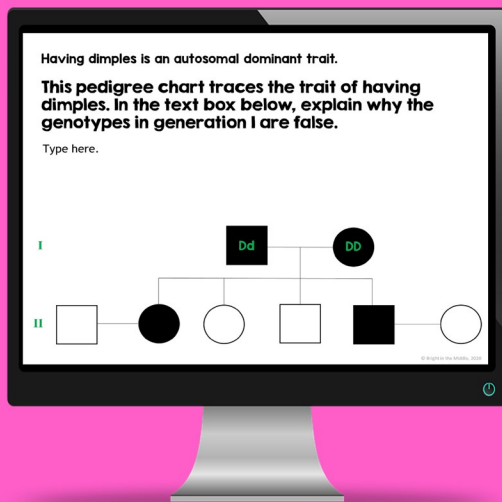
**Digital Science
INTERACTIVE
Lessons**
for

**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.



**Digital Science
INTERACTIVE
Lessons**
for

DIRECT INSTRUCTION

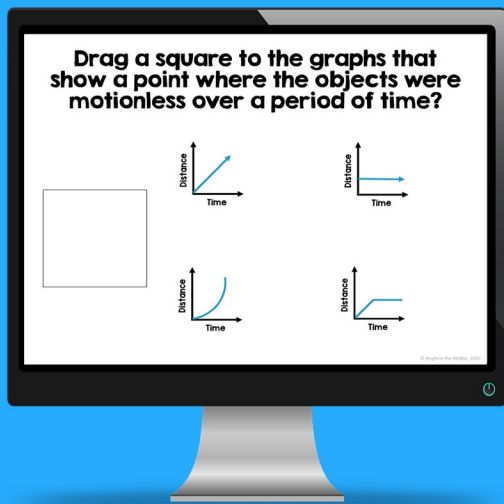
For example, when teaching about **pedigree charts**, the teacher can first discuss what a square and a circle represent in a pedigree chart.

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.



**Digital Science
INTERACTIVE
Lessons**
for

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!



**Digital Science
INTERACTIVE
Lessons**
for

ELL STUDENTS

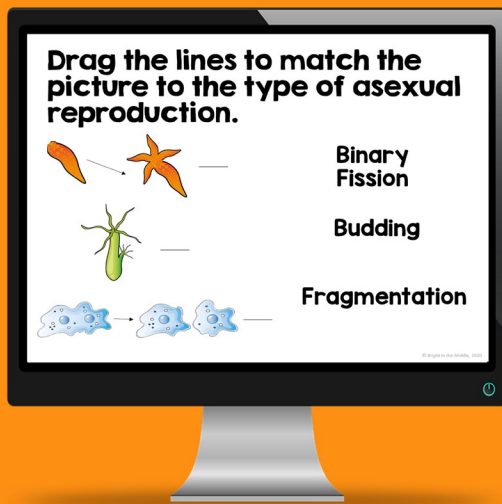
There are many options that students can use to learn science material. As a teacher that only speaks English, you can imagine how difficult it is to teach a student that speaks another language. I'm sure there are other teachers out there with the same dilemma.

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.



**Digital Science
INTERACTIVE
Lessons**
for

**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!

