

Students will identify and describe

Directions:

- watch the video
- Match the graphs to the location on the pendulum

Conservation of energy on a pendulum

Assuming No Friction

Forms of Energy

Conservation of Mechanical energy

Conservation of Non-mechanical Energy

Directions:

- Drag the name to the correct definition
- Drag the pictures that represent that form of energy

Matching

Form of Energy	Picture	Description
nuclear		Energy associated with the motion and position of an object
acoustic		Energy of electromagnetic waves that can travel through space
radiant		Energy that comes from a heated substance
chemical		Energy released during nuclear fission or fusion
Mechanical		The disturbance of energy as it passes through matter
thermal		Energy from the flow of an electric charge
electrical		Potential energy a chemical substance has to undergo a chemical reaction

Forms of Energy

Conservation of Mechanical energy

Conservation of Non-mechanical Energy

Wrap Up

Answers

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Students will do calculations to demonstrate their understanding of total mechanical energy

Directions:

- Define conservation of energy
- find the missing information based on your knowledge of conservation of energy

Definition of conservation of energy

Using the conservation of energy, identify the missing information

Before



20 J 2 J

➔

After

Before



15 J J

Finish the statements with the correct forms of energy or energies



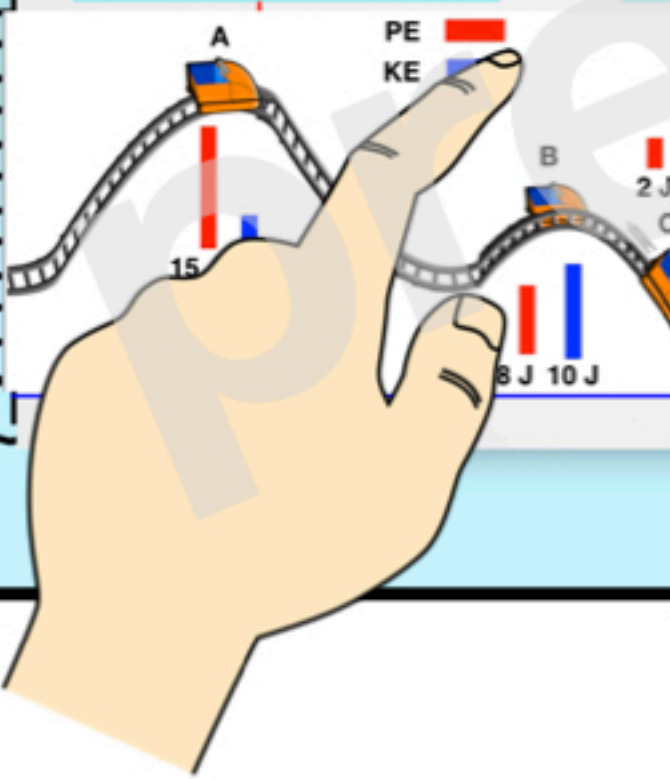
Fireworks convert chemical energy into



lamps convert electrical energy into



wind turbines convert mechanical energy into



PE █

KE █

At A: PE = 15, KE = 0

At B: PE = 8, KE = 10

At C: PE = 2, KE = 10

Forms of

Conservation of Mechanical energy

Conservation of Non-mechanical Energy

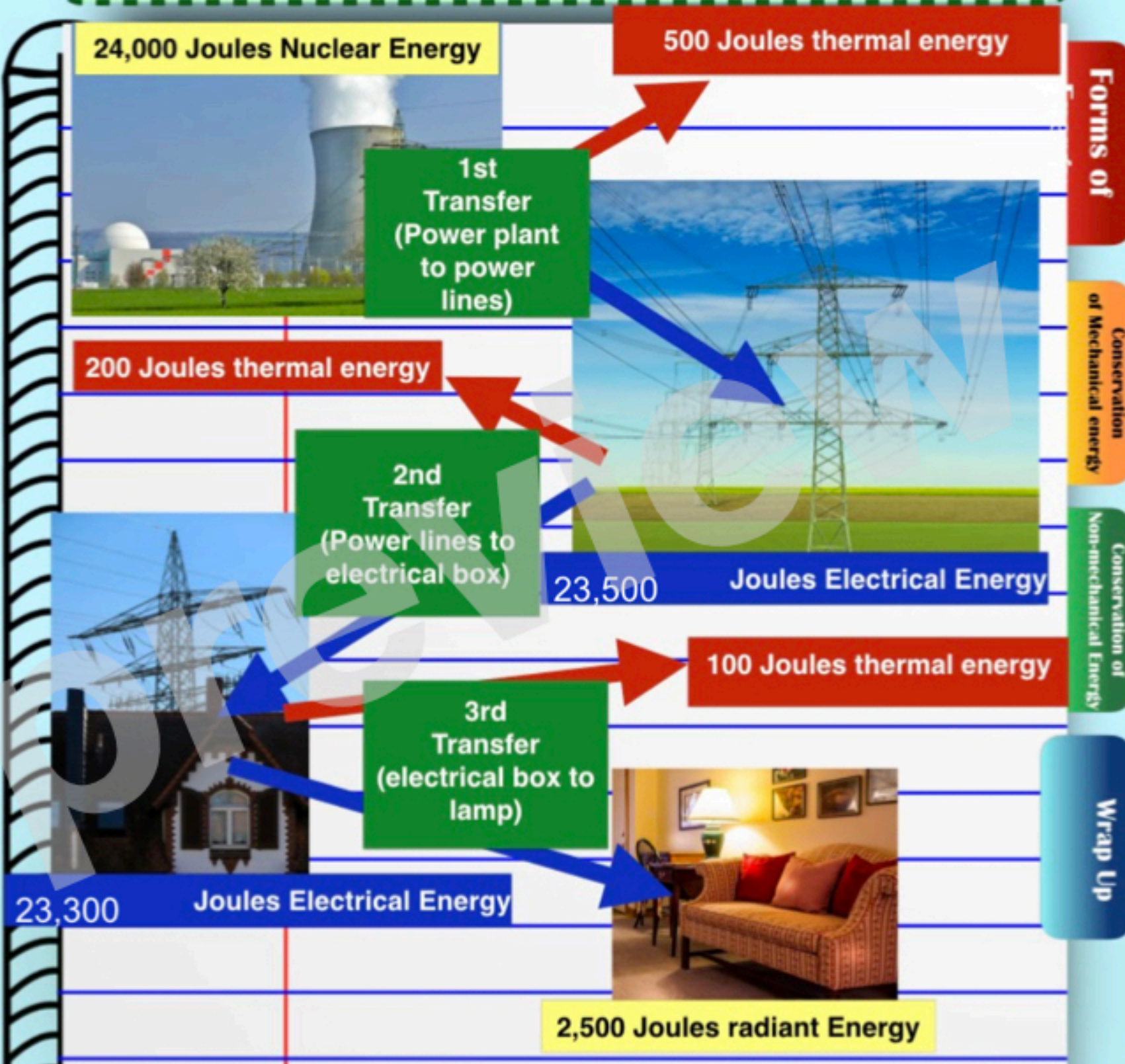
Wrap Up

Teacher directions and answer key provided

Directions:

Use your knowledge of conservation of energy and follow the flow of energy from the nuclear power plant to the lamp in your house.

Identify the amount of energy transferred in each blue box for each step along the way.



Explain why all of the energy from the nuclear power plant did not make it to the lamp in the living room

The other 20,700 joules is being stored in the electrical box or used by other objects in the house like the refrigerator, oven, clocks

Teachers: click on the titles in the red box to download the digital notebook to their google drive

Teachers Guide

What You Will Need To Get Started:

1. Download link for the Google Resource

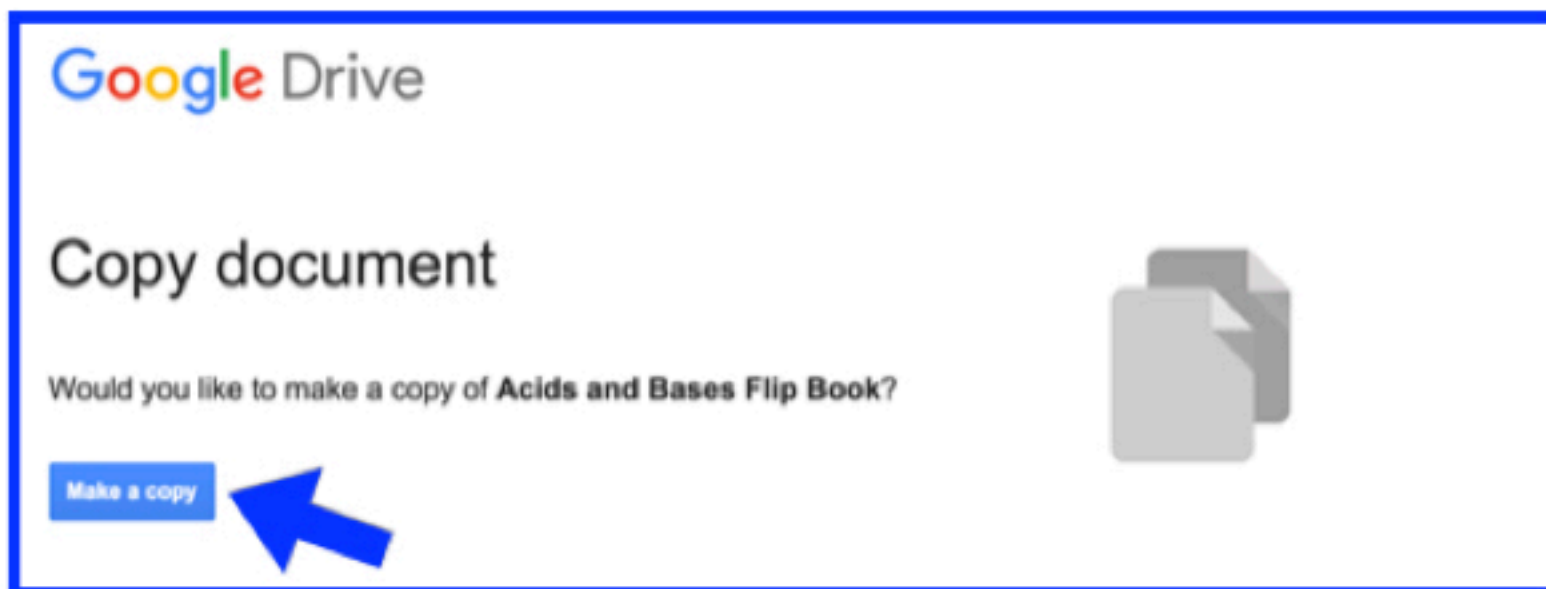
Cell Cycle Digital Interactive Notebook Student

Cell Cycle Digital Interactive Notebook Teacher

2. Access to the Internet and a Google Account (Free)

3. Google accounts or Microsoft OneDrive accounts for your students to save their work

4. Open the file on your Google Drive. The link will prompt you to make a copy



5. This new copy is now yours to edit and share with your students

6. Printer access if you choose to print the finished product as an actual flip book

Teacher directions on how to share with students in google classroom, microsoft one drive, or any other LMS

How to use this resource with your student:

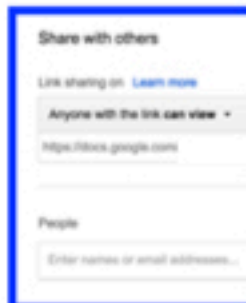
Google Directions:

1. After you have made your own copy of the resource from the link, you will want to make a copy for your student.

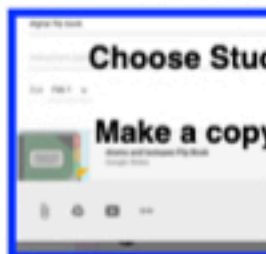
-Some options for this

- A. Give the students the link to your resource and make it "view only" this will allow students to make their own copies without affecting the original. To do this go to the blue SHARE button in the top right corner >get shareable link> choose people with a link can view > copy the link

- **Remember**, when sharing a link on an open class



- B. Use google resource to make a copy



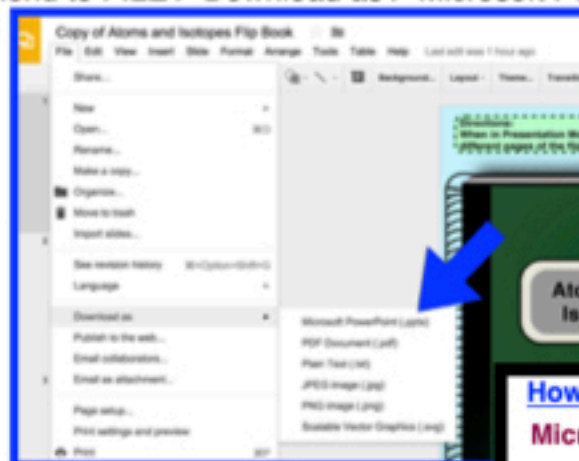
2. Students will be able to automatically saved.

3. Students may share

How to use this resource with your student:

Microsoft OneDrive Directions:

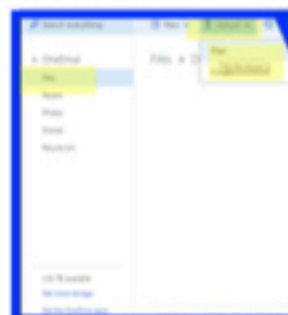
1. After you have made your own copy of the resource from the link, you will need to download your copy as a ppt to your desktop. To do this from the menu to FILE > Download as > Microsoft PowerPoint (.pptx)



2. Open your OneDrive. Create a folder for this step is recommended to keep you and your



3. From the menu, select Upload > Files from your computer or select the file and upload



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How to use this resource with your student:

Microsoft OneDrive Directions:

4. Make sure that you open the resource to make sure it is in good working order before sharing it with your students.

5. You will want to interact with the digital flip book in the "edit mode". This allows you to add their own text and move the pieces.

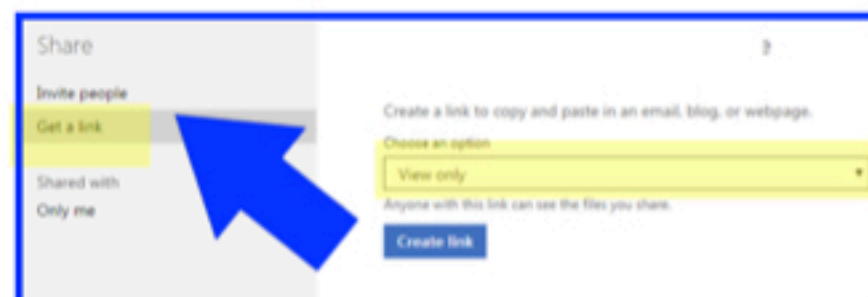
6. You will be prompted to choose to edit the file in PowerPoint or online. Select online. It will then open in a browser.

7. Follow your normal steps in sharing the file with your students. Go to Share > Share with people



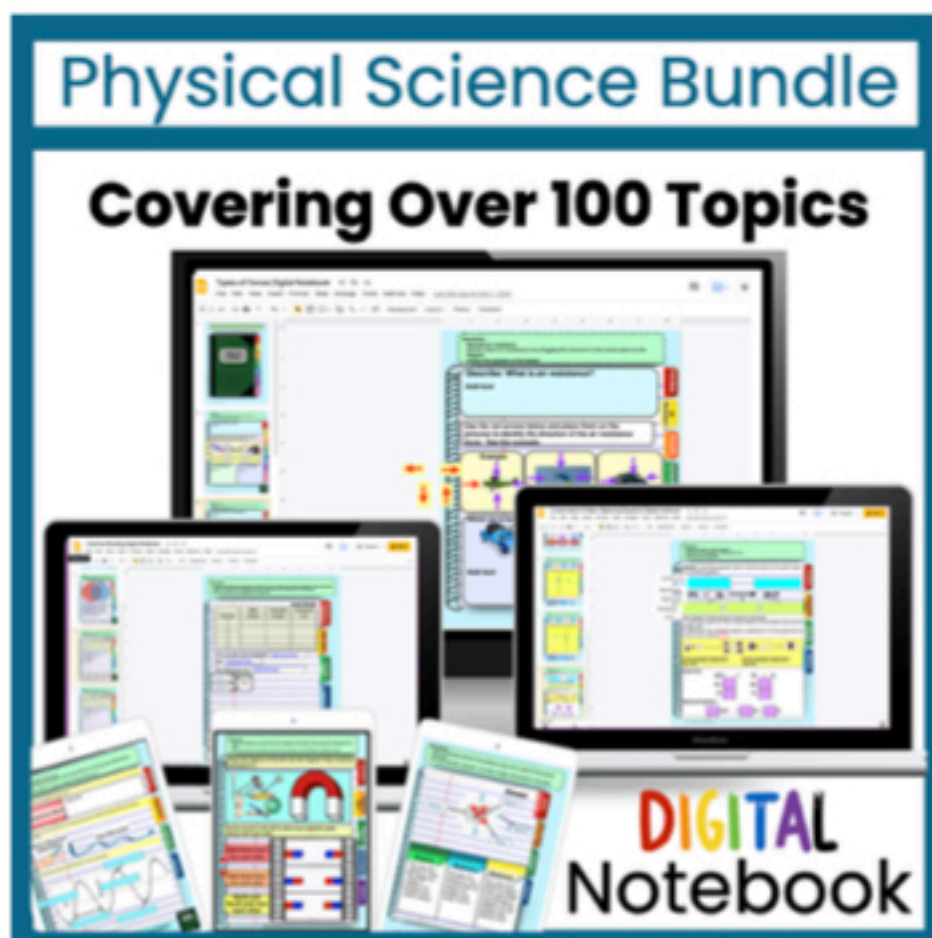
8. Choose the option to view only. Then require your students to make a copy in their own drive before editing the file. This ensures your students do not edit your file.

- **Remember**, when sharing your link with your students make sure it is a secure format that requires a log in password and not on a personal, school, or district that can be accessed by anyone

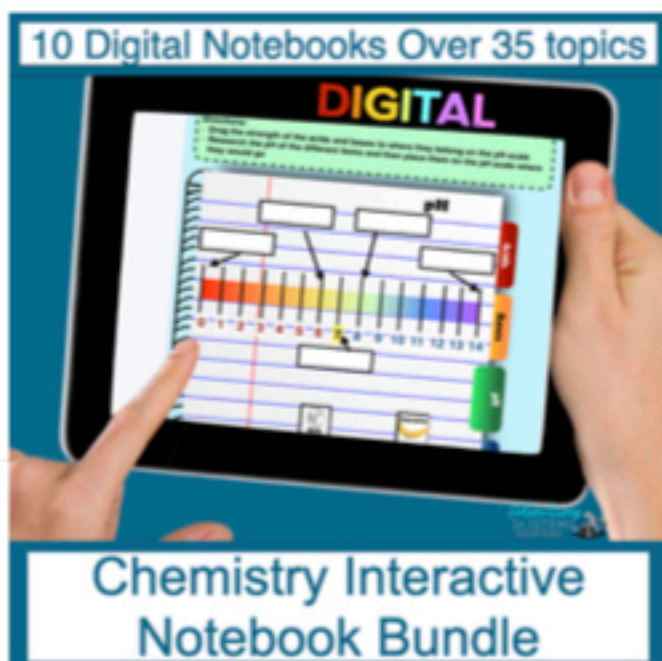




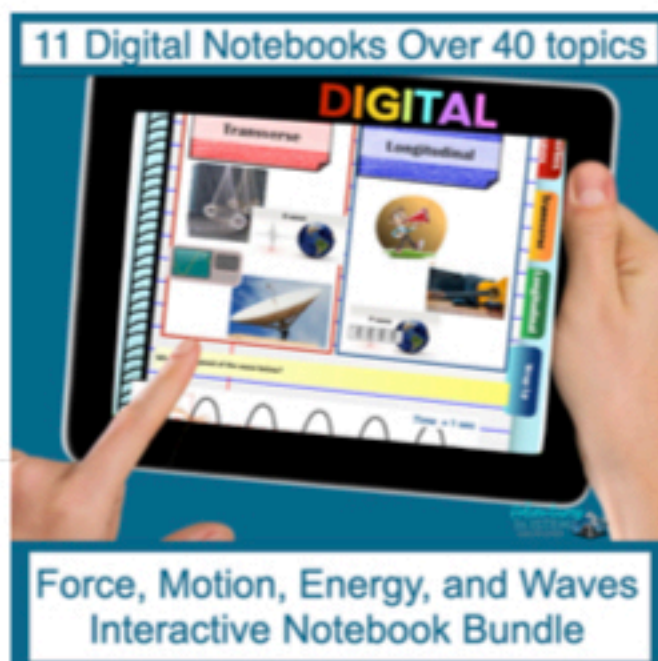
Save Money and Grab a Bundle



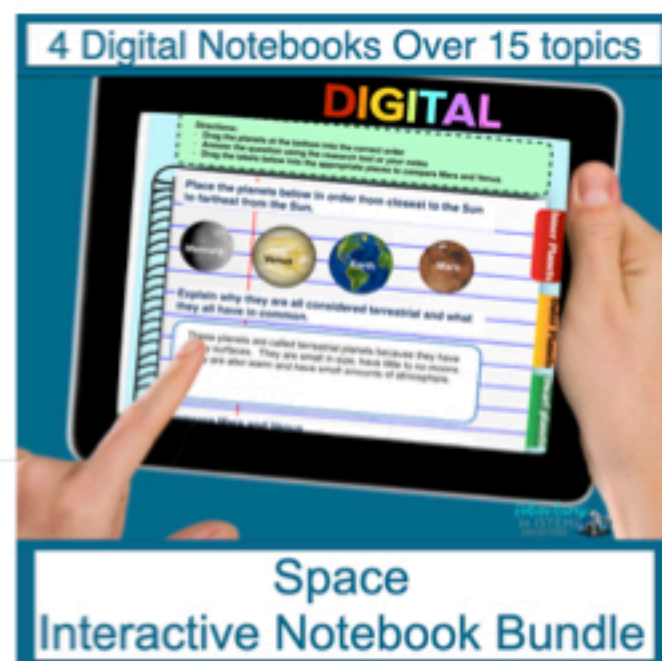
Years worth of digital notebooks covering over 100 physical science topics.



10 digital notebooks covering over 35 chemistry topics.



11 digital notebooks covering over 35 physics topics.



4 digital notebooks covering over 35 space topics.



Teaching STEM Through Inquiry

Thank You

Thank You for taking the time to visit my store and downloading one of my products. I hope you find this resource a useful tool for your classroom. I appreciate your support and look forward to your feedback.

Giving Back

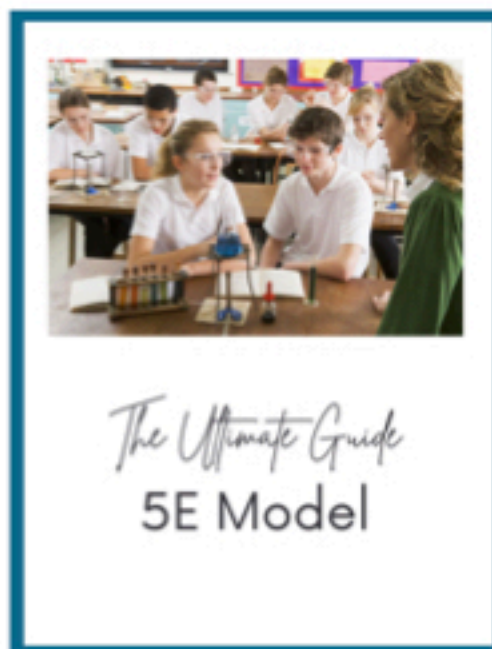
Cancer affects not only the person but everyone they know. A portion of the proceeds of this product are going to the organization LLS which helps to fund treatments and find a cure.

Have a Question?

I do my best to insure that this product is free from issues and mistakes. However, Sometimes links change and mistakes are missed by even the best editors, if you are experiencing any issues with this product please contact me first at kristi@adventuresinistem.com

Grab the FREE guides

Grab the free guides (flipped classroom guide / 5E model guide) to help empower students and then receive weekly tips, strategies, ideas, and freebies delivered right to your inbox.



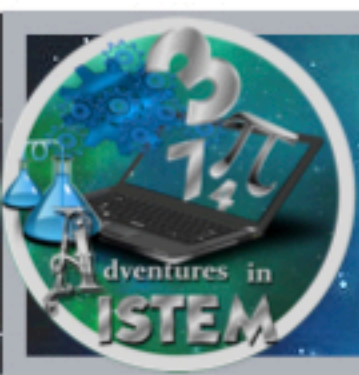
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Special Thanks

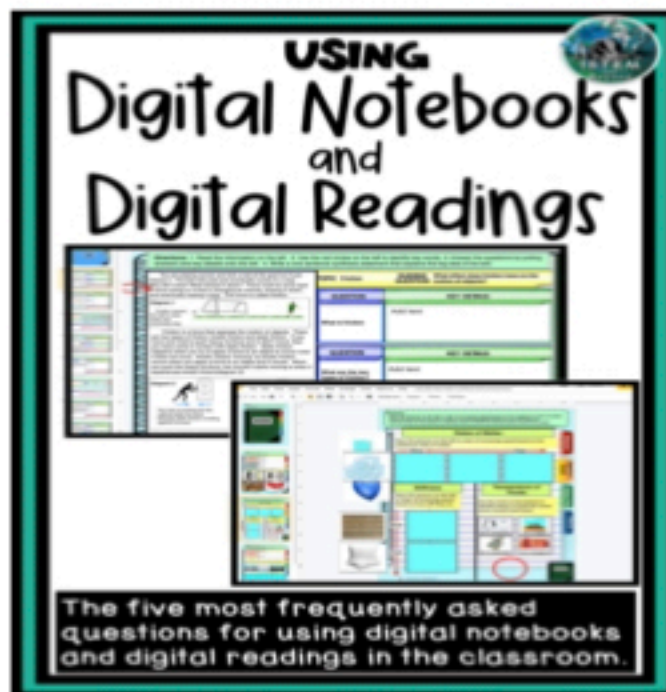




Digital Resources

Using Digital Products?

If you are new to using digital lessons than I recommend to check out my blog post that contains the most frequently asked questions. Click the picture for the link.



I would also recommend checking out my Google Slide videos that demonstrate how to drag and drop pieces, write in the text boxes, add objects, and more. These are short videos that can easily be shared with students and parents. Click the picture for the link

