

# Students will identify and describe

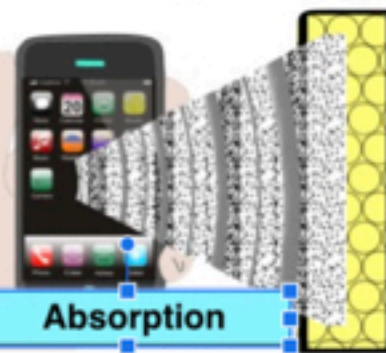
**Directions:**

- Write the definition of the words
- Match the words below to the appropriate pictures


**Directions: Write the definition of the words**

<b>Reflection</b>	Add text
<b>Transmission</b>	Add text
<b>Absorption</b>	Add text
<b>Diffraction</b>	Add text


**Directions: Match the words below to the appropriate pictures**



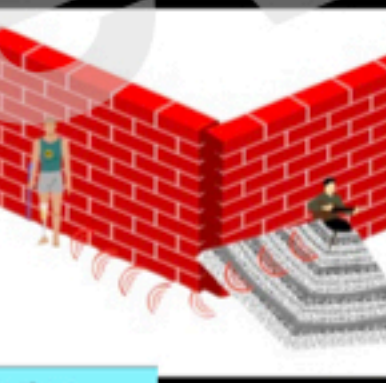
**Absorption**




**Transmission**



**Diffraction**



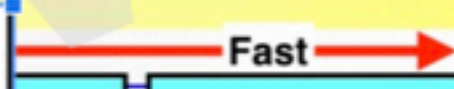
**Reflection**



of increasing speed based on the substances state of matter  
 of increasing speed based on how stiff they are  
 ify where on Earth the sound waves would travel faster




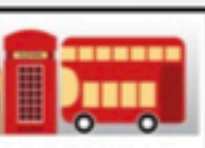
**States of Matter**


it is order of increasing speed based on the



**Temperature of Fluids**

Use the circle on the bottom to identify where on Earth the sound waves would travel faster.

 Air in Antarctica	 Air in Egypt
 Air in Australia	 Air in England



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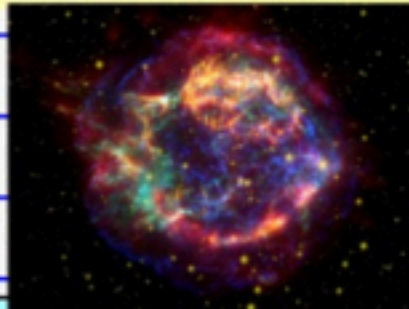


# Students will analyze and explain

**Directions:**

- Explain why can we see the explosion of a dying star but not hear it?
- Research: Discover how animals use sound to help them hunt and navigate. Add a picture of the animal you found and explain how it uses sound waves.

Explain why can we see the explosion of a dying star but not hear it?



Add text

Behavior

Speed of Sound

Research: Discover how animals use sound to help them hunt and navigate. Add a picture of the animal you found and explain how it uses sound waves.

Add text

**Directions:**

- Write the definition of the word
- Use the words on the left to identify where on the sound wave the volume would be the lowest, medium volume, and loudest volume
- Place the waves on the left in order of lowest pitch to highest pitch

Directions: Write the definition of the word

Volume

Add text

Pitch

Add text

Behavior

Speed of Sound

Volume/Pitch


Wrap Up

Directions: Use the words on the left to identify where on the sound wave the volume would be the lowest, medium volume, and loudest volume

Lowest volume

Medium Volume

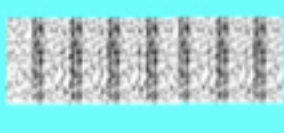


Loudest Volume



Place the waves on the left in order of lowest pitch to highest pitch

lowest

Highest

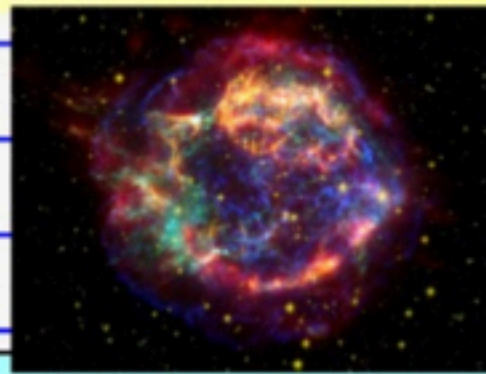


# Teacher directions and answer key provided

## Directions:

- Explain why can we see the explosion of a dying star but not hear it?
- Research: Discover how animals use sound to help them hunt and navigate. Add a picture of the animal you found and explain how it uses sound waves.

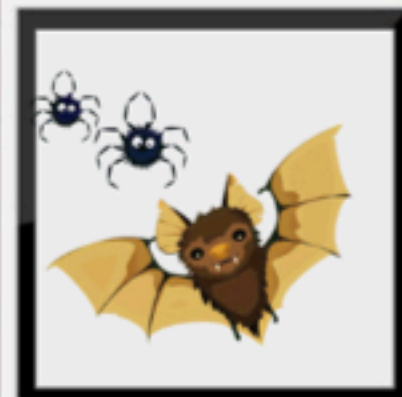
Explain why can we see the explosion of a dying star but not hear it?



Unlike light waves that can travel through a vacuum, sound waves need a medium to pass through. Sound waves can only travel through solids, liquids, and gases. Space is a vacuum and so although we can see the light waves, we cannot hear the sound the explosion makes.

Research: Discover how animals use sound to help them hunt and navigate. Add a picture of the animal you found and explain how it uses sound waves.

Bats use echolocation to identify where insects are. They send out sound waves and the waves will echo off objects through reflection. They can determine what the object is and its location based on how the sound echoes off the object.



Behavior

Speed of Sound

Volume/Pitch

Wrap Up

# 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

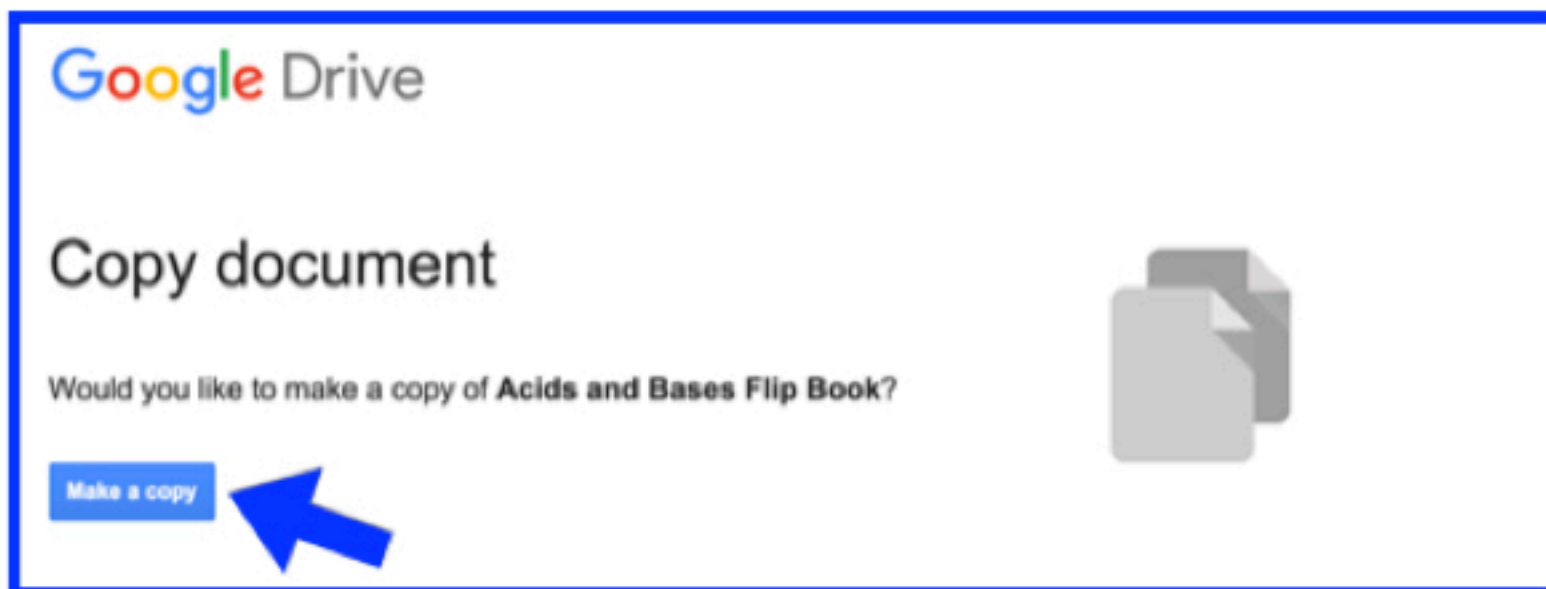
**Cell Cycle Digital Interactive Notebook Student**

**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:

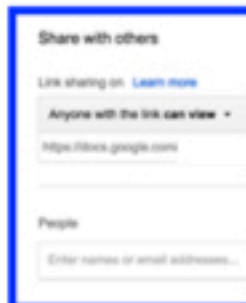
### Google Directions:

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

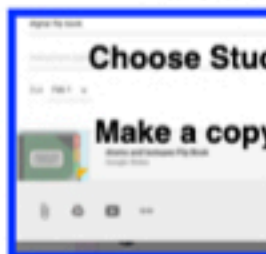
-Some options for this

- 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



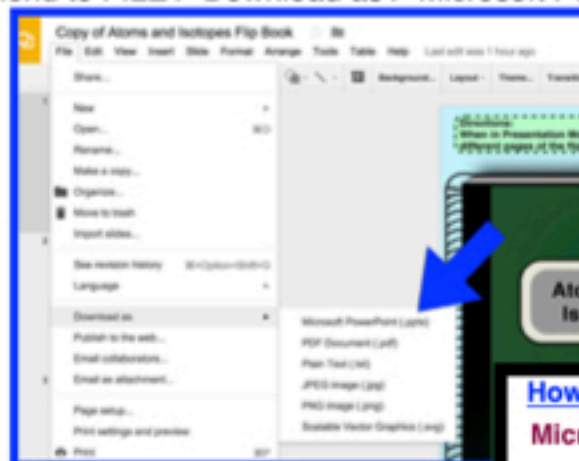
2. Students will be able to automatically saved.

3. Students may share

## How to use this resource with your student:

### Microsoft OneDrive Directions:

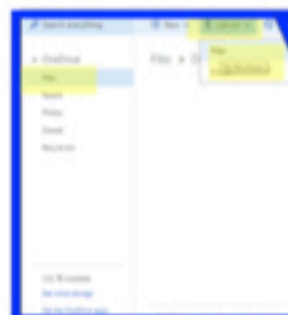
1. After you have made your own copy of the resource from the link, you will need to download your copy as a ppt to your desktop. To do this from the menu to FILE > Download as > Microsoft PowerPoint (.pptx)



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.

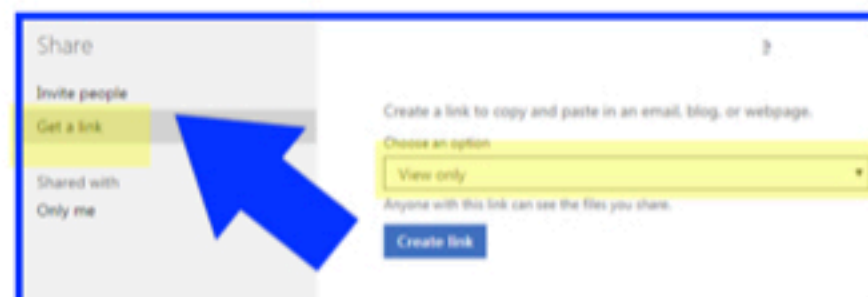
6. You will be prompted to choose to edit the file in PowerPoint or online. Select online. It will then open in a browser.

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.

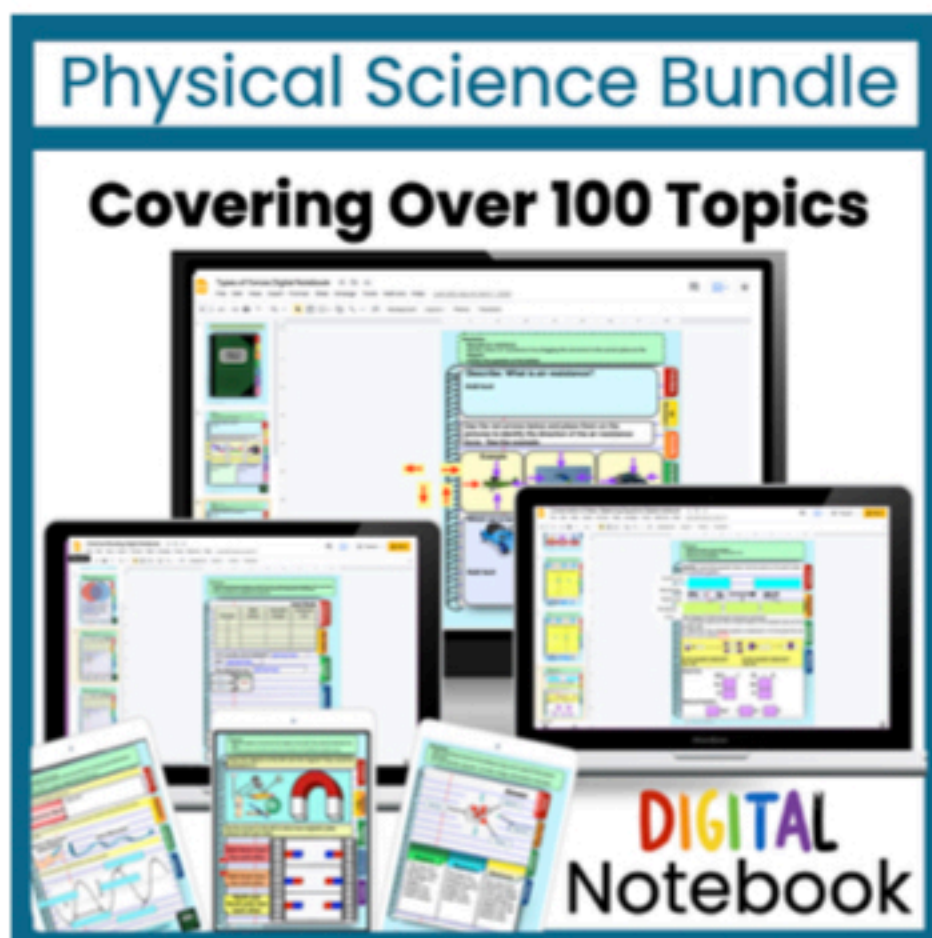
- **Remember**, when sharing your link with your students make sure it is a secure format that requires a log in password and not on a personal, school, or district that can be accessed by anyone



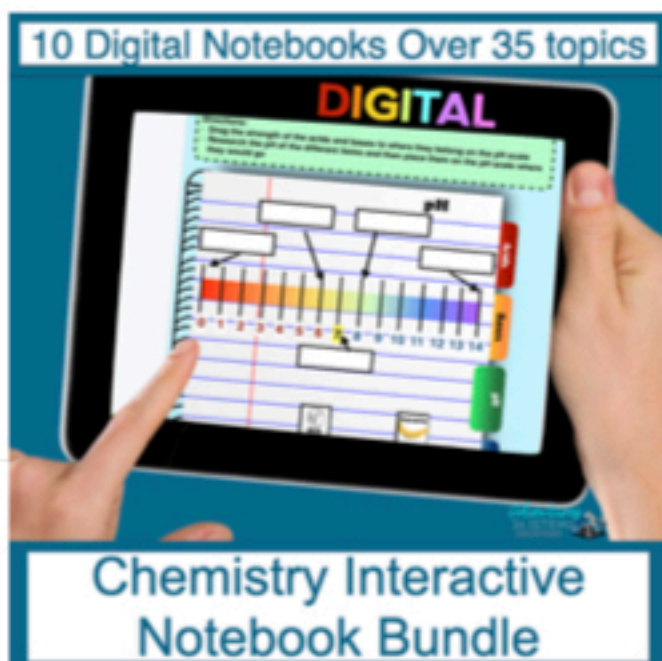




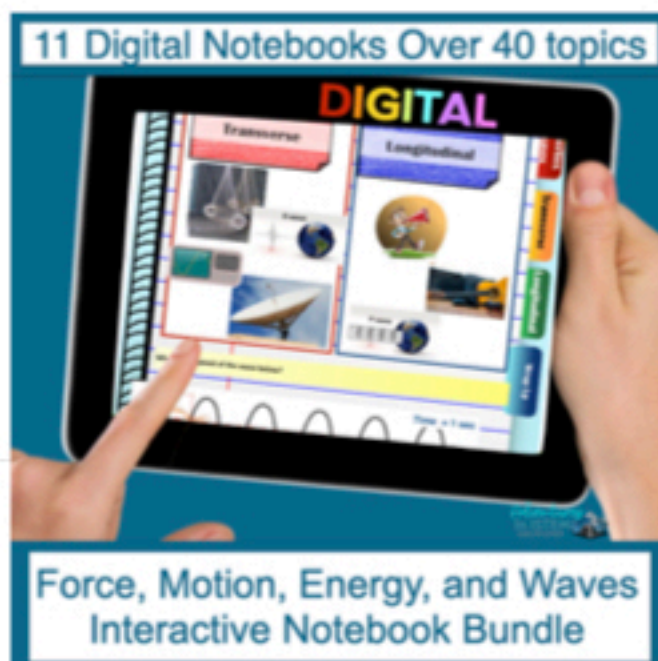
# Save Money and Grab a Bundle



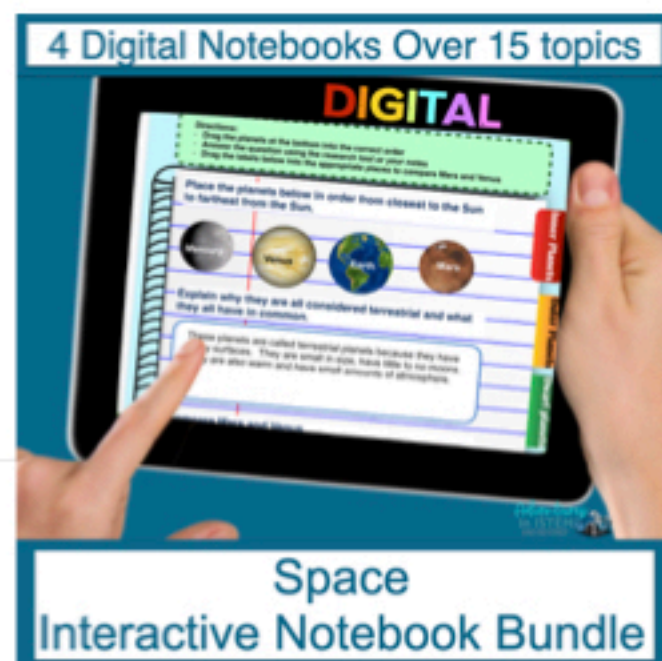
Years worth of digital notebooks covering over 100 physical science topics.



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

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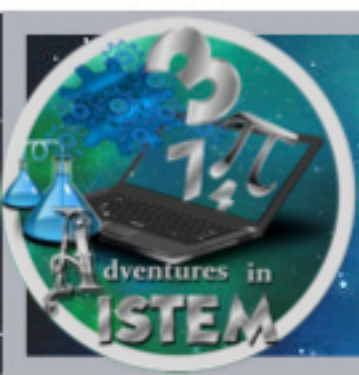
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## Special Thanks

Pixabay



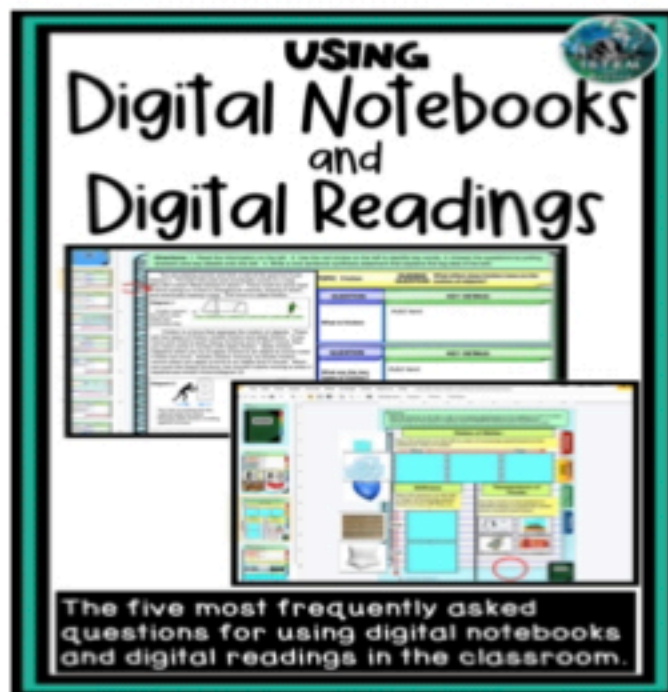




# Digital Resources

## 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

