

# Students identify parts of an atom

## Directions:

- Move the pieces on the bottom of the page to the correct place on the atomic structure.
- For each particle, describe: the mass, charge, and location in the atom.

**Atoms**

**Atomic Structure**

**Atoms and the Periodic Table**

**Isotopes**

**Wrap Up**

| Protons               | Neutrons              | Electrons             |
|-----------------------|-----------------------|-----------------------|
| Mass:<br>Add text     | Mass:<br>Add text     | Mass:<br>Add text     |
| Charge:<br>Add text   | Charge:<br>Add text   | Charge:<br>Add text   |
| Location:<br>Add text | Location:<br>Add text | Location:<br>Add text |

**Proton** **Nucleus** **Electron** **Neutron**

Atoms and Isotopes

# Students identify and label objects

Fill in the chart with the correct atomic number, atomic mass, and number of protons, neutrons, and electrons.

## Atoms and the Periodic Table



**Atomic Number  
(APE)**

A =   
equals

P =   
which equals



**Atomic Mass  
(MAN)**

M =   
equals

A =   
+ (plus)

N =

|             | Atomic Number | Atomic Mass | Protons | Neutrons | Electrons |
|-------------|---------------|-------------|---------|----------|-----------|
| Carbon (C)  |               |             |         |          |           |
| Neon (Ne)   |               |             |         |          |           |
| Sodium (Na) |               |             |         |          |           |

Proton

atomic mass

Neutron

Electron

atomic number

Atoms and Isotopes

# Students compare and analyze

## Directions:

- Identify the number of protons, neutrons, electrons, atomic number, atomic mass, and element name for atoms A, B, and C.
- Explain which two atoms are isotopes of each other and why?

| atom A                                                                              | atom B                                                                               | atom C                                                                                |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  |  |  |
| # of protons: <input type="text"/>                                                  | # of protons: <input type="text"/>                                                   | # of protons: <input type="text"/>                                                    |
| # of electrons: <input type="text"/>                                                | # of electrons: <input type="text"/>                                                 | # of electrons: <input type="text"/>                                                  |
| # of neutrons: <input type="text"/>                                                 | # of neutrons: <input type="text"/>                                                  | # of neutrons: <input type="text"/>                                                   |
| Atomic Number: <input type="text"/>                                                 | Atomic Number: <input type="text"/>                                                  | Atomic Number: <input type="text"/>                                                   |
| Atomic Mass: <input type="text"/>                                                   | Atomic Mass: <input type="text"/>                                                    | Atomic Mass: <input type="text"/>                                                     |
| Element Name: <input type="text"/>                                                  | Element Name: <input type="text"/>                                                   | Element Name: <input type="text"/>                                                    |

Explain which two are isotopes and why?

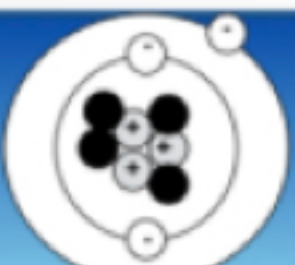
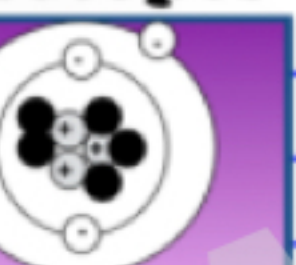
Type your answer here

# Teacher directions and answer key provided

## Directions:

- Identify the number of protons, neutrons, electrons, atomic number, atomic mass, and element name for atom A, B, and C.
- Explain what an isotope is by filling in the blanks. Use text boxes.

**Isotopes**

| atom A                                                                             | atom B                                                                              | atom C                                                                               |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|  |  |  |
| # of protons: <input type="text" value="3"/>                                       | # of protons: <input type="text" value="3"/>                                        | # of protons: <input type="text" value="3"/>                                         |
| # of electrons: <input type="text" value="3"/>                                     | # of electrons: <input type="text" value="3"/>                                      | # of electrons: <input type="text" value="3"/>                                       |
| # of neutrons: <input type="text" value="3"/>                                      | # of neutrons: <input type="text" value="4"/>                                       | # of neutrons: <input type="text" value="5"/>                                        |
| Atomic Number: <input type="text" value="3"/>                                      | Atomic Number: <input type="text" value="3"/>                                       | Atomic Number: <input type="text" value="3"/>                                        |
| Atomic Mass: <input type="text" value="6"/>                                        | Atomic Mass: <input type="text" value="7"/>                                         | Atomic Mass: <input type="text" value="8"/>                                          |
| Element Name: <input type="text" value="Lithium"/>                                 | Element Name: <input type="text" value="Lithium"/>                                  | Element Name: <input type="text" value="Lithium"/>                                   |

Isotopes are atoms with the same number of  but different number of . For example, atom A and atom B both have 3 protons, however atom A has 3 neutrons and atom B has 4 neutrons.

# 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

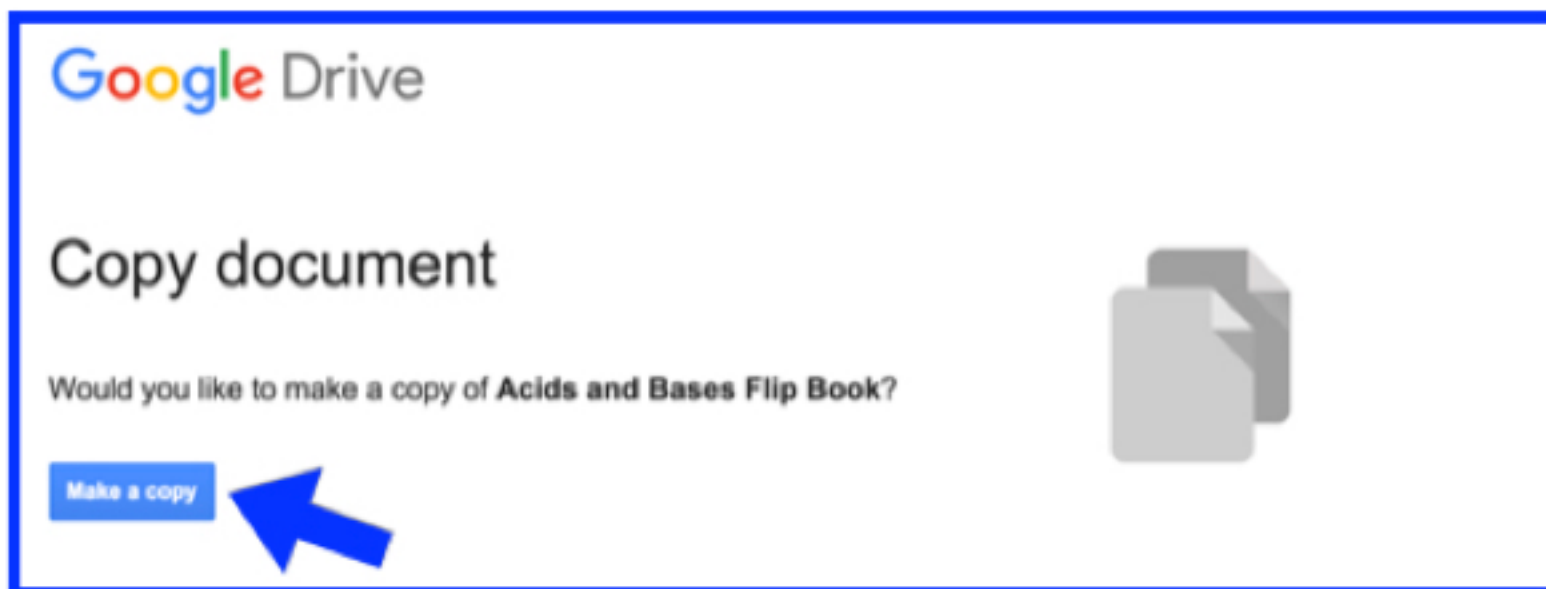
**Cell Cycle Digital Interactive Notebook Student**

**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:

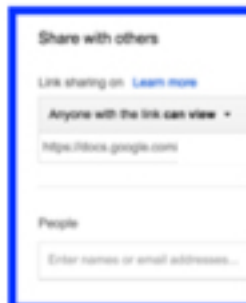
### Google Directions:

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

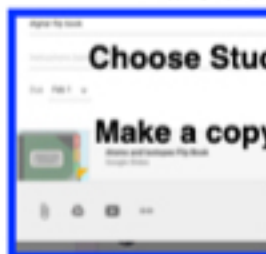
-Some options for this

- 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



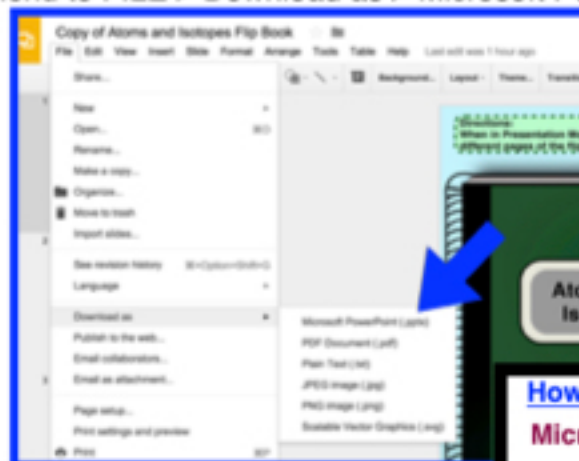
2. Students will be able to automatically save.

3. Students may share

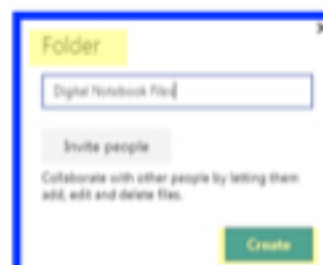
## How to use this resource with your student:

### Microsoft OneDrive Directions:

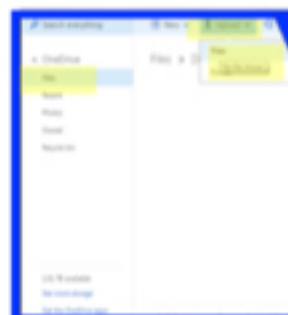
1. After you have made your own copy of the resource from the link, you will need to download your copy as a ppt to your desktop. To do this from the menu to FILE > Download as > Microsoft PowerPoint (.pptx)



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:

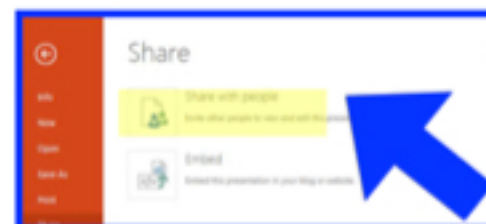
### Microsoft OneDrive Directions:

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.

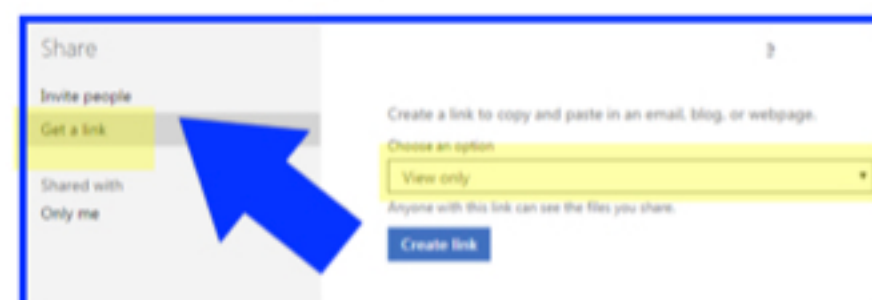
6. You will be prompted to choose to edit the file in PowerPoint or online. Select online. It will then open in a browser.

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



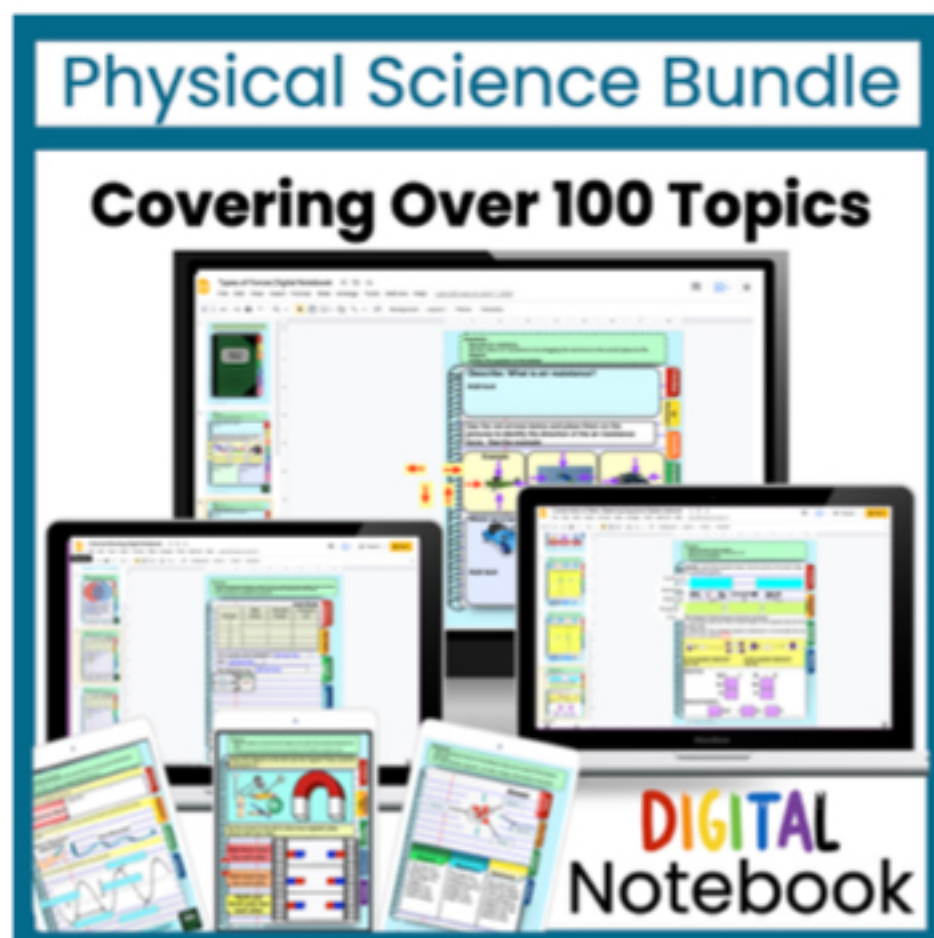
8. Choose the option to view only. Then require your students to make a copy in their own drive before editing the file. This ensures your students do not edit your file.

- **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

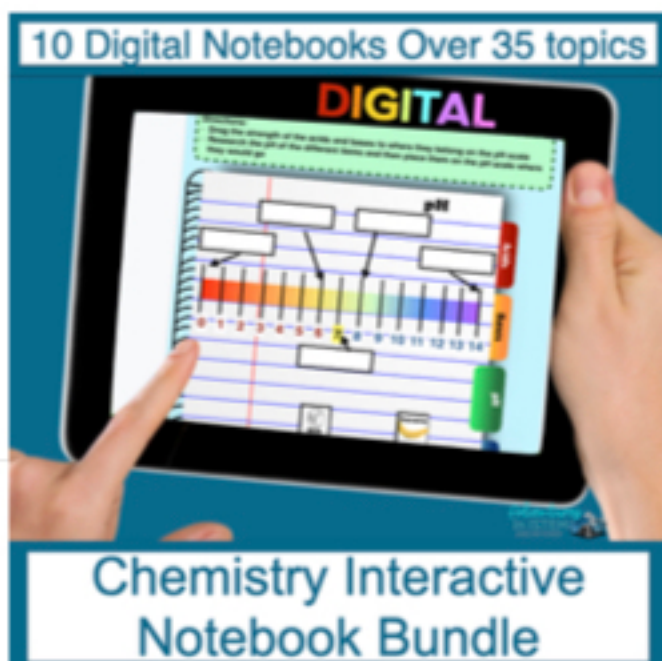




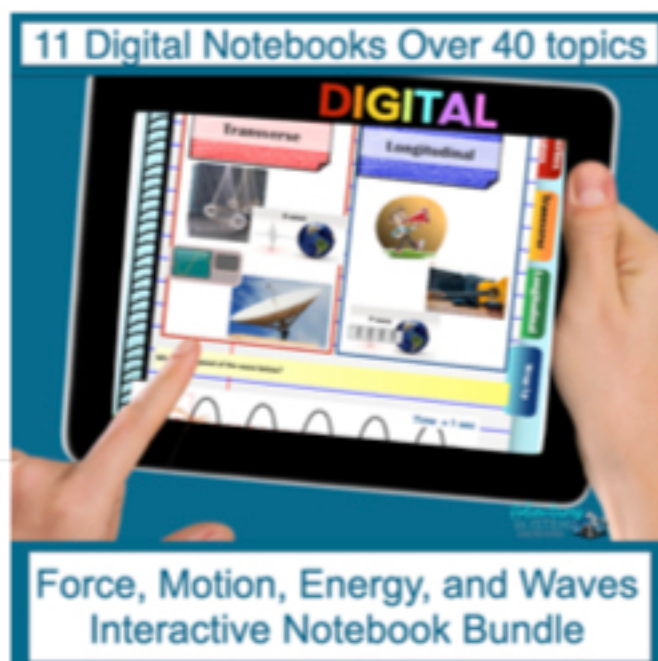
# Save Money and Grab a Bundle



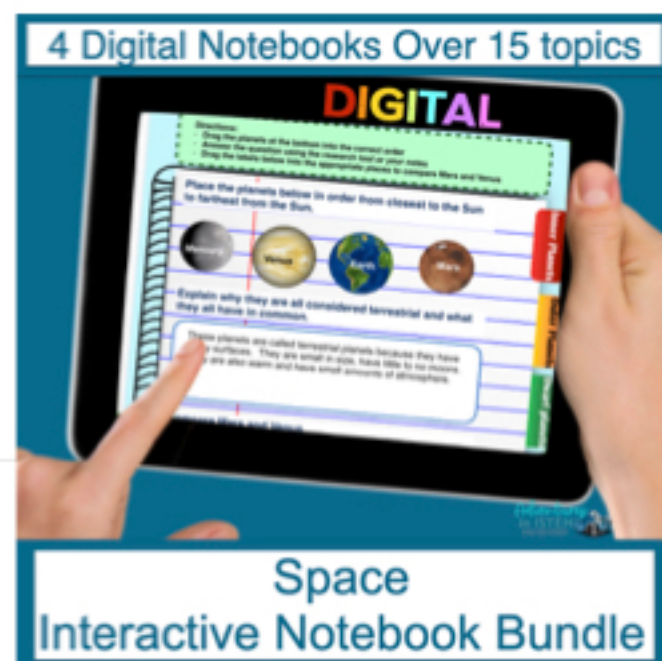
Years worth of digital notebooks covering over 100 physical science topics.



10 digital notebooks covering over 35 chemistry topics.



11 digital notebooks covering over 35 physics topics.



4 digital notebooks covering over 35 space topics.



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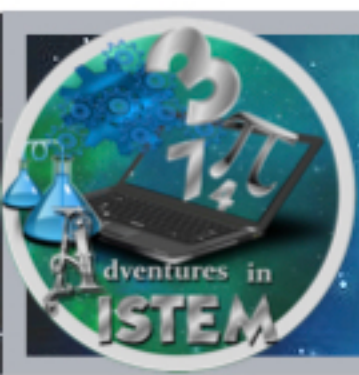
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## Special Thanks

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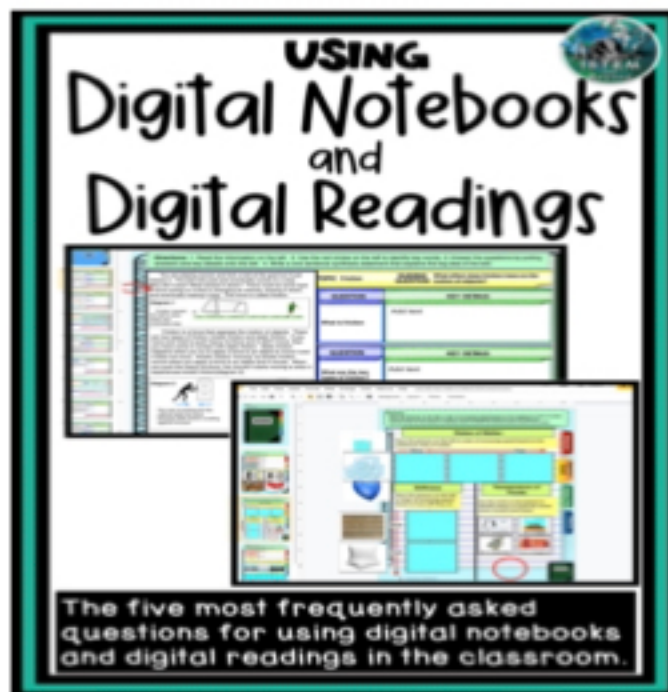




# Digital Resources

## 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

