

Special Ed

# CHEMISTRY

## 7 UNITS 20 WEEKS



ALSO INCLUDES GOOGLE SLIDES





## For students who:

- are emerging or non-readers
- take alternate assessments
- are in special education
- short-attention span
- lack pre-requisite skills
- benefit from the use of pictures for support
- middle/high school



## Why you need this curriculum:

- If you teach multiple grade levels, you have all you need in one place.
- Having the same layout for each unit reduces students' anxiety and allows them to focus on the content.
- Aligned with extended learning standards.
- Saves you money
- Saves you time.

This bundle includes 7 different units that are typically part of a high school chemistry curriculum. It includes:

1. 12 Science Experiments (3 weeks)
2. Scientific Method (3 weeks)
3. Famous Scientists (4 weeks)
4. The Atom (1 week)
5. The Periodic Table (3 weeks)
6. Mixtures and Solutions (3 weeks)
7. Physical and Chemical Changes (3 weeks)

All units have  
printable  
AND digital  
versions



All the units contain similar activities so students become familiar with the format and can concentrate more on the content. Although there is some variation, each unit has:

- Detailed lesson plans
- A book PLUS a pre-recorded PowerPoint show and movie version
- Vocabulary cards
- Circle maps
- Sorting activities
- Labeling activities
- Experiments
- Close worksheets (fill in the blank)
- Assessments (3 versions)

All units have  
printable  
AND digital  
versions



## Table of Contents

Pages	Activity
4-5	Vocabulary board
6-10	Vocabulary cards
11-22	Vocabulary cut and paste
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36-40	Identify solutes and solvents
41-51	Experiment 1: Separating mixtures
52-63	Experiment 2: Solubility
64-70	Vocabulary Word search
71-72	Vocabulary Sudoku
73-79	Cloze worksheets
80-90	Assessment
91-92	Terms of Use

Also included in this resource as separate files:

- Lesson plans
- Links and directions to digital activities
- PowerPoint (this is the book in the lesson plans)
- Voice recorded PowerPoint
- Activities in black and white

Each unit has a table of contents. There is a separate file with directions and links to the digital activities.



# Lesson plan

## Day 2

Activity	Notes	Materials
Read or listen to a recording of the book (15 minutes)	<ul style="list-style-type: none"> <li>• Read through the story, asking lots of questions</li> <li>• Continue to make connections between book and vocabulary board</li> </ul>	<ul style="list-style-type: none"> <li>• Book</li> <li>• Vocabulary board</li> </ul>
Vocabulary cards I Spy Game (10 minutes)	<ul style="list-style-type: none"> <li>• I play this game, or variations of it the first few days               <ul style="list-style-type: none"> <li>◦ Determine how many cards your students can handle in front of them. This can vary, some students may be able to have all the cards, so may only be able to handle a field of 3-5</li> </ul> </li> <li>• Since this is the first time playing this game, I make it easy. Hold up a card, and have students find the matching one and hold it up</li> <li>• Discuss relevant points on the card               <ul style="list-style-type: none"> <li>◦ You can also play this game in this manner having them find the symbol on their vocabulary board</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Vocabulary cards (student set and teacher set)</li> <li>• Vocabulary board</li> </ul>
Circle map review (5 minutes)	<ul style="list-style-type: none"> <li>• Review the circle map completed yesterday</li> </ul>	<ul style="list-style-type: none"> <li>• Circle map completed yesterday</li> </ul>
Labeling activity (10 minutes)	<ul style="list-style-type: none"> <li>• Do the labeling activity of the parts of the atom</li> <li>• Choose the best version either using words or picture symbols</li> <li>• You can also add color coding as needed</li> </ul>	<ul style="list-style-type: none"> <li>• Labeling activity</li> <li>• Scissors</li> <li>• Glue</li> </ul>
Sharing (10 minutes)	<ul style="list-style-type: none"> <li>• Each student shares their circle map with the group using the communication method of their choice</li> </ul>	<ul style="list-style-type: none"> <li>• Completed circle maps</li> <li>• Communication devices</li> </ul>

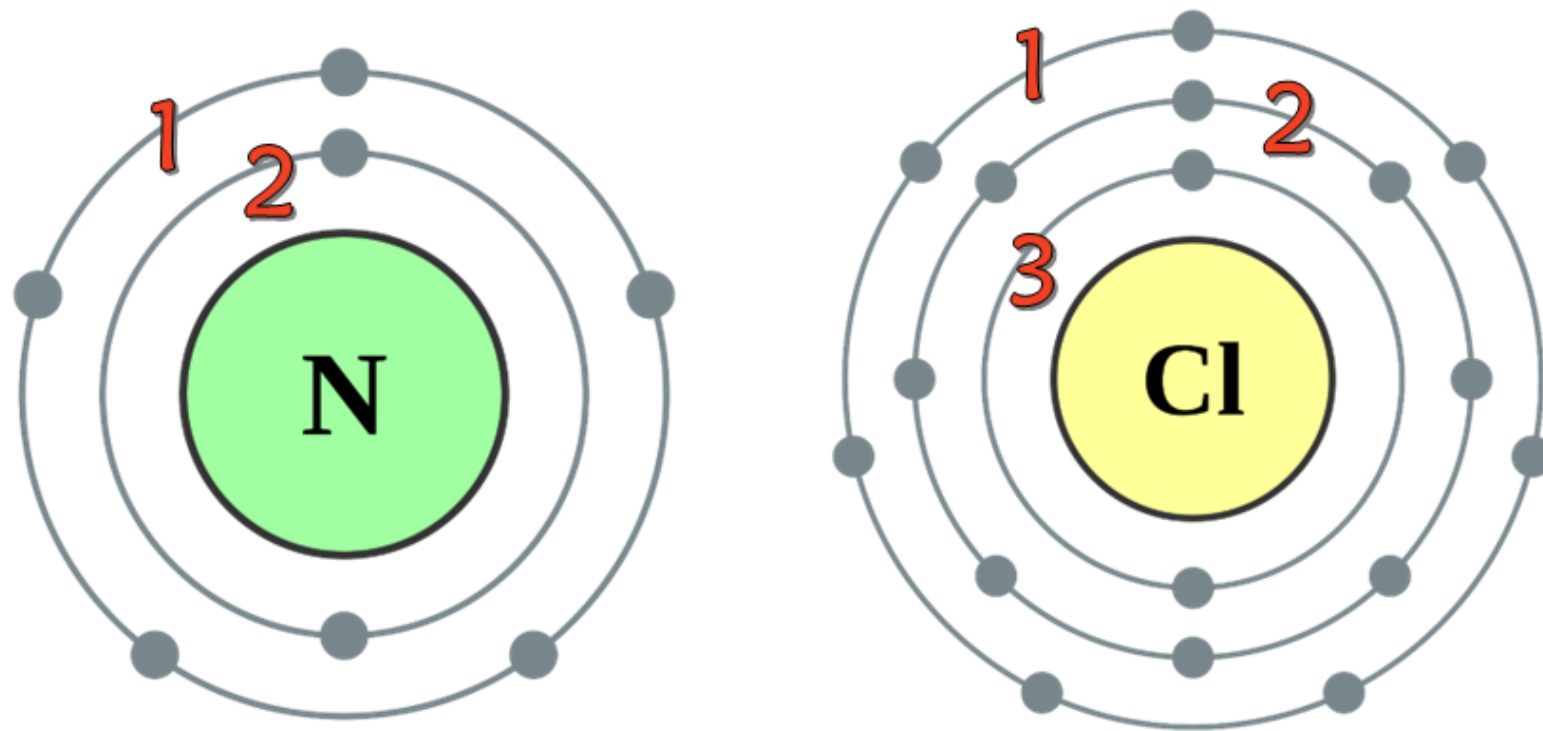
Every unit has a detailed lesson plan with:

- suggestions
- overview
- daily step-by-step guide



# Book

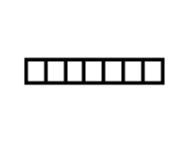








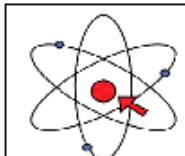
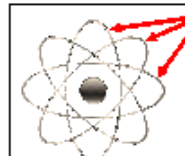
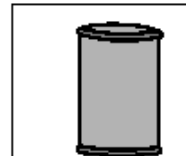




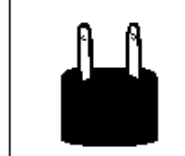


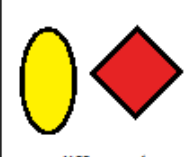


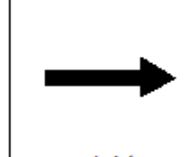






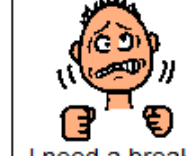
Each period has elements with the same number of orbitals around the nucleus. The second period has elements with two orbitals, the third period has elements with three orbitals and so on.



Every unit has a book with simple text and engaging photos. It comes in:

- PowerPoint
- recorded PPT show
- mp4 (movie) file



 period	 group	 element	 atomic number	 atomic mass	 atomic symbol
 proton	 neutron	 electron	 nucleus	 orbit	 metal
 metalloid	 nonmetal	 ductile	 malleable	 conductor	 noble gas
 same	 different	 reactions	 left	 right	 size
 please repeat	 I like that	 I don't like that	 I don't know	 try again	 I need a break

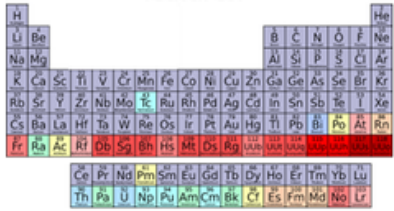
Each unit has a vocabulary board to use while working through the unit. Suggestions for use are included.

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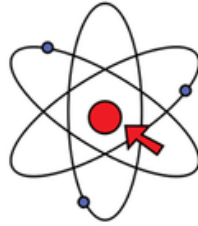
## periodic table

Table that organizes all the elements according to their structure and features.



## nucleus

Center of the atom that contains protons and neutrons.



## electron

Negatively charged particle in an atom that orbits around the nucleus.



## proton

Positively charged particle in the atom found in the nucleus.



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## neutron

Particle in the atom found in the nucleus that has no charge.



## atomic mass

How much the atom weighs.



## atomic number

Number of protons in the nucleus.



## atomic symbol

Abbreviation found on periodic table that refers to the full name of the element.



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# Vocabulary

## neutron

Particle in the atom found in the nucleus that has no charge.



## atomic mass

How much the atom weighs.



## atomic number

Number of protons in the nucleus.



## atomic symbol

Abbreviation found on periodic table that refers to the full name of the element.

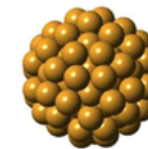


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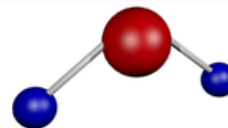
## Robert Boyle



## element



## molecule



## hydrogen



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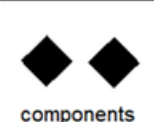
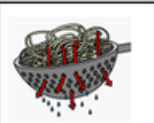


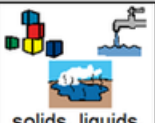

Every unit has vocabulary cards. There are suggestions for daily group activities to review these.



# circle maps

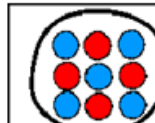





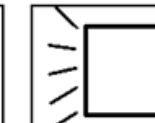


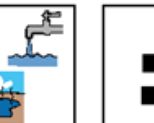





Cut apart pictures and place in circle map about mixtures.

Errorless version

 homogeneous	 heterogeneous	 physical change	 separate them	 components stay the same
 filter	 distillation	 centrifuge	 solids, liquids, gases	 solution



Cut apart pictures and place in circle map **ONLY IF** they relate to mixtures.

 homogeneous	 heterogeneous	 chemical change	 separate them	 components stay the same
 filter	 something new created	 centrifuge	 solids, liquids, gases	 always evenly distributed
 cannot separate them	 distillation	 physical change	 only found in labs	 solution

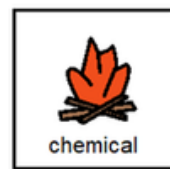
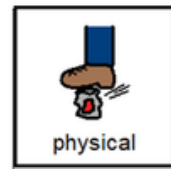
Each unit comes with 1 or more circle maps to visually review the main facts from the book. These come with an errorless option and an option with wrong answers mixed in.

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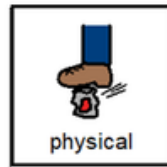


# sorting

The unit on the periodic table has sorting activities. There are suggestions for how to differentiate these quickly included.



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Diagram of an atom with a central nucleus and three orbiting electrons. Arrows point from empty boxes to the nucleus and one electron.

Icons for labeling:

- nucleus
- proton (+)
- electron (-)
- neutron (0)

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**labeling**

Color in:

- Metals blue
- Metalloids orange
- Nonmetals green

Group →	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	1 H																	2 He
2	3 Li	4 Be									5 B	6 C	7 N	8 O	9 F	10 Ne		
3	11 Na	12 Mg									13 Al	14 Si	15 P	16 S	17 Cl	18 Ar		
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
6	55 Cs	56 Ba		72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
7	87 Fr	88 Ra		104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113 Uut	114 Uuq	115 Uup	116 Uuh	117 Uus	118 Uuo
	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu			
	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No	103 Lr			

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There are labeling and activities in both units. Suggestions for differentiation are included.

Diagram of a periodic table element box for Carbon. The box contains "Carbon", "6", "C", and "12.011". Arrows point from empty boxes to these elements.

Icons for labeling:

- # atomic number
- atomic mass
- Aa atomic symbol

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Physical or Chemical Change Experiment #1

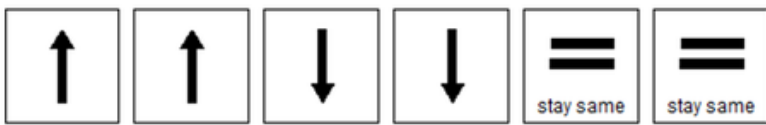
Heat or No Heat

My hypothesis

I think the temperature of:

Mixture #1 will

Mixture #2 will

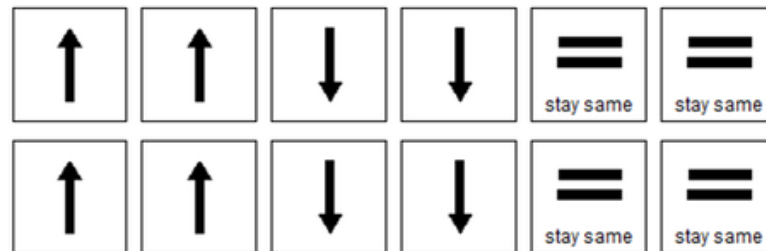


Physical or Chemical Change Experiment #1

Heat or No Heat

Testing my hypothesis:

	Prediction of Temperature Change	Result of Temperature Change
Mixture #1		
Mixture #2		



# experiments

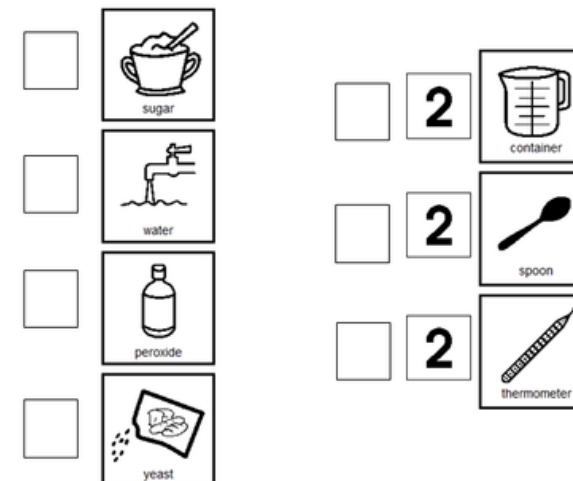
Physical or Chemical Change Experiment #1

Heat or No Heat

People on my team: \_\_\_\_\_

\_\_\_\_\_

Materials needed:



The experiments walk students through the scientific method with lots of visual supports.



## The Periodic Table

1. The periodic table organizes all the .
2. Periods are elements in the periodic table arranged .
3. Groups are elements in the periodic table arranged .
4. The atomic number tells you how many  are in the nucleus.
5. Each period has elements with the same number of .

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## Review sheets

Each unit includes fill-in-the-blank worksheets to review concepts covered in the book and unit.  
Answer keys included.

## The Periodic Table

6. The atomic mass  as you go across the table from left to right.
7.  arranged all the elements into the periodic table.
8. Most of the metals are found on the  side of the table.
9. Most of the nonmetals are found on the  side of the table.
10. Metalloids are use in making .

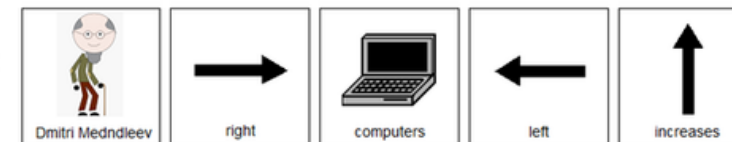
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Use either pictures or words to complete the sentences on the previous page.

Page 1

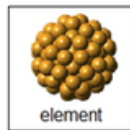
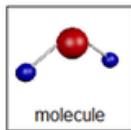
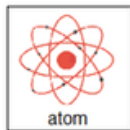


Page 2

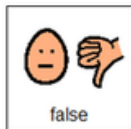




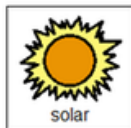
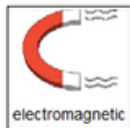
1. What is the name of smallest unit of matter?



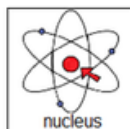
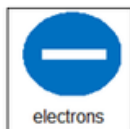
2. True or False. The nucleus contains electrons.



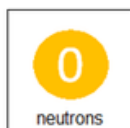
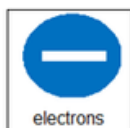
3. This force keeps an atom from flying apart:



4. The inside of the atom contains:

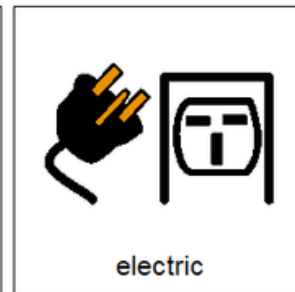
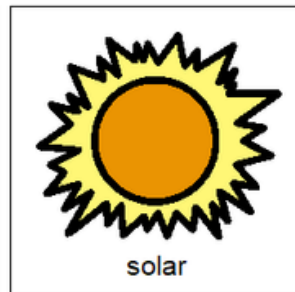
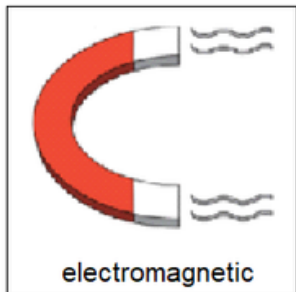


5. Particles in the atom that have a positive charge are:

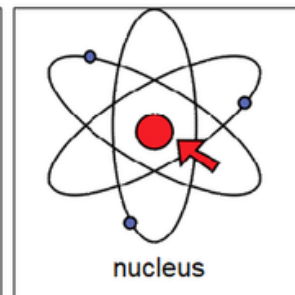
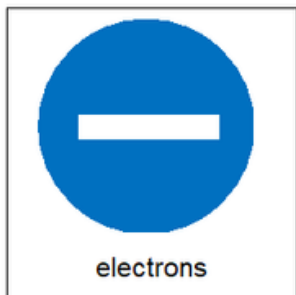


Print onto cardstock or mount on index cards. Cut pictures apart and show student answer choices for each question.

Q 3



Q 4



- What is the name of smallest unit of matter?
  - Atom
  - Molecule
  - Element
- True or False. The nucleus contains electrons.
  - True
  - False
  - I don't know
- This force keeps an atom from flying apart:
  - Electromagnetic
  - Solar
  - Electric
- The inside of the atom contains:
  - Electrons
  - Marbles
  - Nucleus
- Particles in the atom that have a positive charge are:
  - Electrons
  - Protons
  - Neutrons
6. Neutrons have:
  - Negative charge
  - Positive charge
  - No charge

Finally, each unit has an assessment that is available in 3 versions. These are given 1:1 and read aloud to the student.

**Assessment**

All of these units include digital versions of the activities. These simply require the student to click and drag the answers. There is no drawing or typing involved.

There is a movie version of the book.

There are 2 complete sets of slides. One set is differentiated with color.

Quickly combine slides from the 2 sets to create the perfect combination for each student.

**Make great independent learning centers.**



**Atoms** are the smallest and most basic unit of matter; too small to be seen even under the microscope.



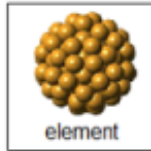
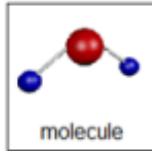
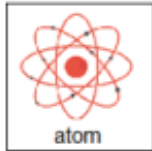
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Watch the movie on atoms.

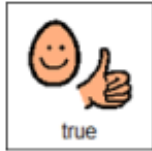
The movie version of the book from the unit.

Use for more review.

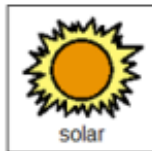
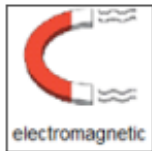
1. What is the name of smallest unit of matter?



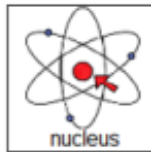
2. True or False. The nucleus contains electrons.



3. This force keeps an atom from flying apart:



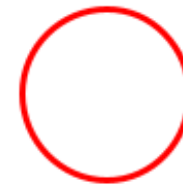
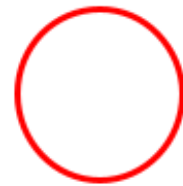
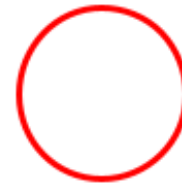
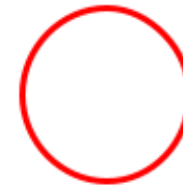
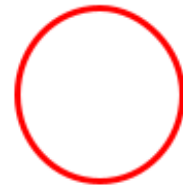
4. The inside of the atom contains:



5. Particles in the atom that have a positive charge are:



Place a circle on the correct answer.



The digital activities are click and drag.

Christa Joy, Special Needs for Special Kids  
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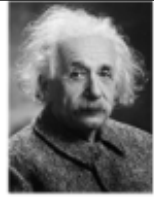


Perfect for any learning level.

Each unit comes with a set of slides that are differentiated with color.



Galileo



Einstein

Sort the pictures depending on which scientist it describes. If you are not sure, place it on the center line.

 telescope	 came to United States	 sun is center	 studied energy
 planets	 Leaning Tower of Pisa	 studied Newton	 atomic bomb
 light	 Nobel Prize	 Dad musician	 refrigerator
 studied mass	 Theory of Relativity		

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**Still have questions?**

**Reach out at [specialneedsforspecialkids@gmail.com](mailto:specialneedsforspecialkids@gmail.com)**

**I will answer your question personally and promptly.**

