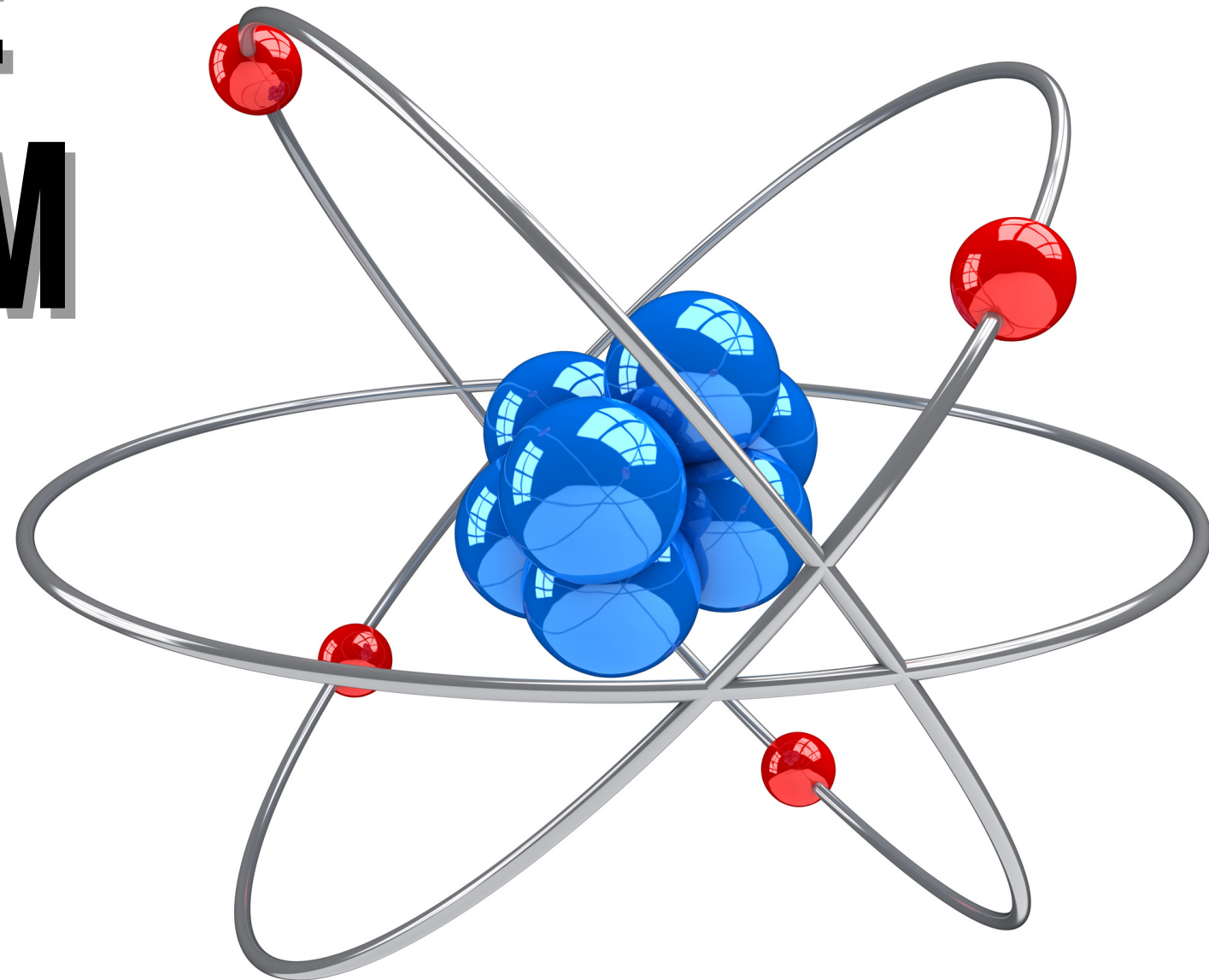
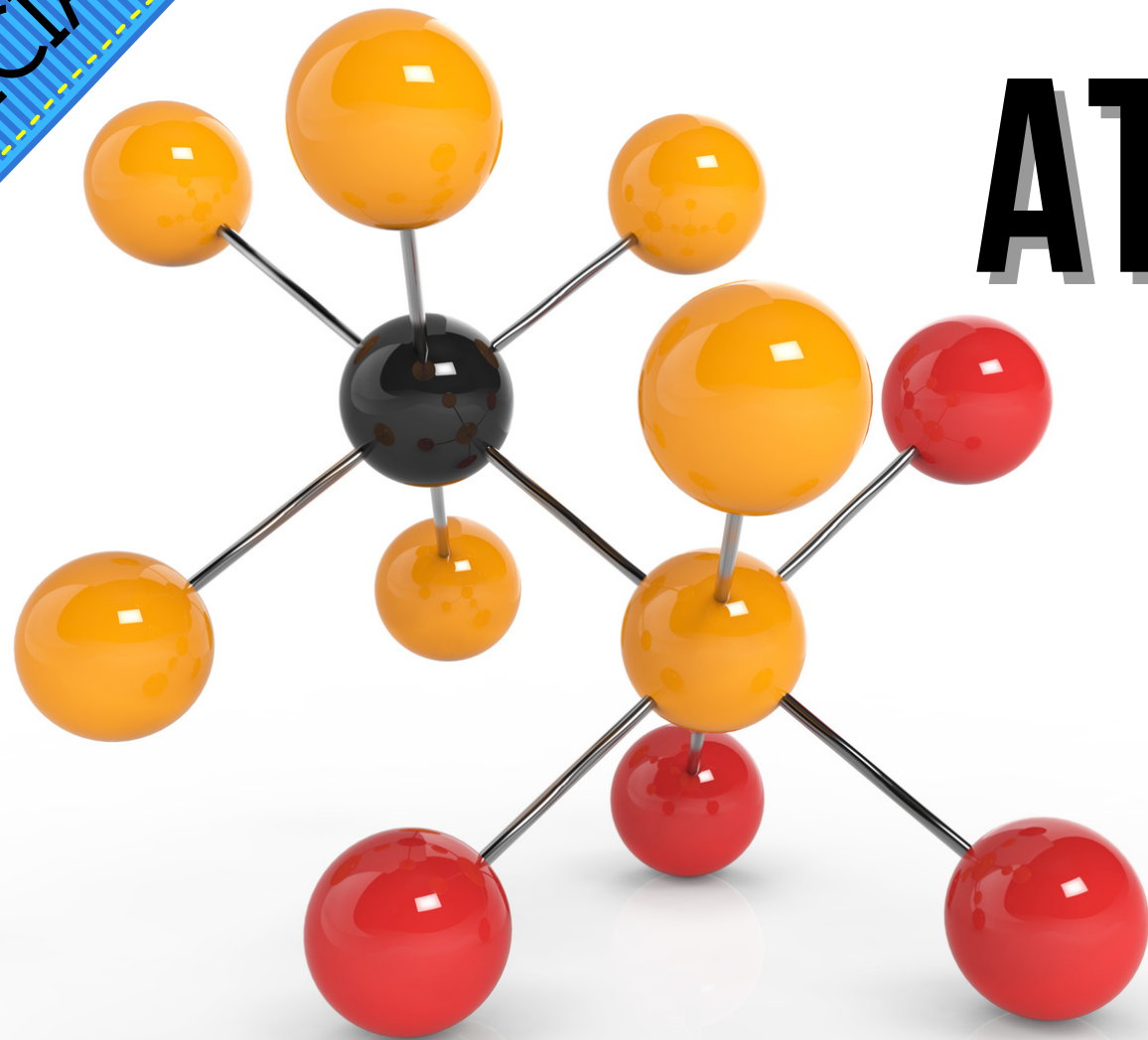


SPECIAL ED

THE ATOM



MAKING CHEMISTRY ACCESSIBLE TO ALL LEARNERS

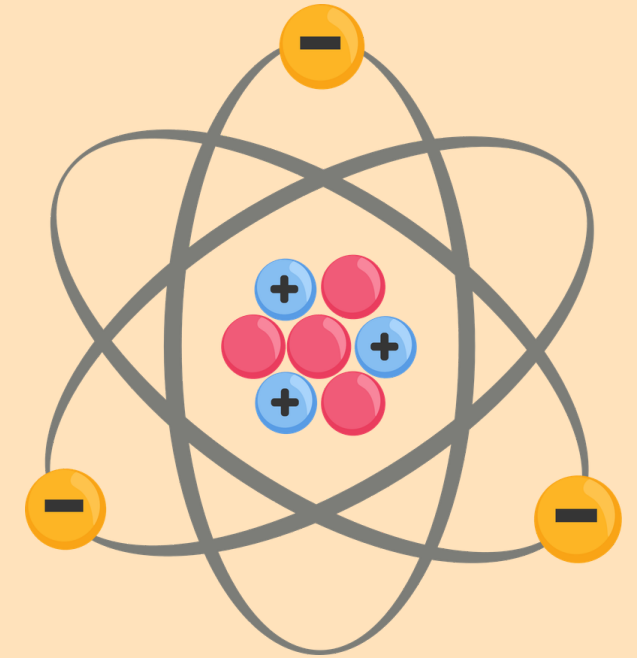


For students who:

- 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

What's Included

-  15 days of Lesson Plans
-  PowerPoint, Google Slides & MP4 Video
-  Vocabulary Activities
-  Worksheets & Graphic Organizers:
 - ✓ Circle Maps
 - ✓ Labeling activities
 - ✓ Sorting activities
 - ✓ Timeline: Development of Atomic Model
 - ✓ Making an atom model (2D and 3D)
 - ✓ Assessments
 -  Digital Activities



**Scroll
down
to see
MORE!!**

Lesson Plan

The **lesson plans** contain:

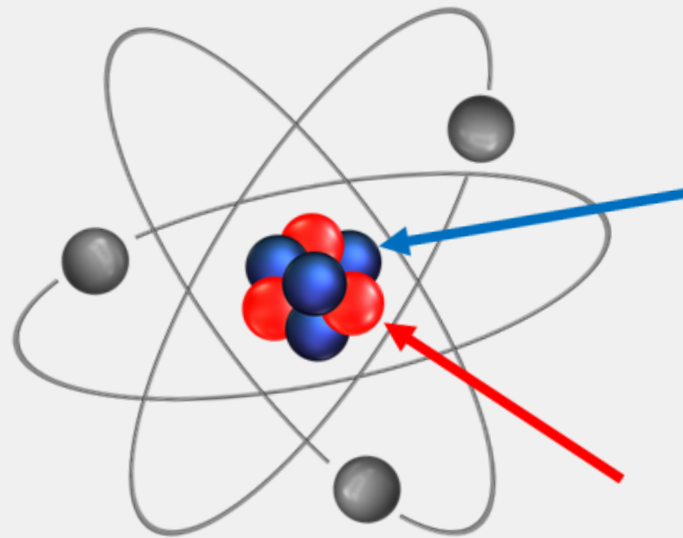
- ✓ Overall tips for teaching students with significant needs
- ✓ A quick look at what you will do each day
- ✓ Detailed instructions on how that day's lesson should run

Quick Look	
Day	Activity
1	• PowerPoint • Vocab cards activity • Circle map
2	• PowerPoint • Vocab cards activity • Sorting activity
3	• PowerPoint • Vocab cards activity • Labeling activity
4	• PowerPoint • Vocab cards activity • Bonds Venn Diagram
5-6	• PowerPoint • Vocab cards activity • 2D models
7	• PowerPoint • Vocab cards activity • Make an atom model
8	• PowerPoint • Vocab cut and paste
9	• PowerPoint • Vocab cut and paste
10	• PowerPoint • Vocab cards activity • Close worksheets
11	• Assessment

Day 2		
Activity	Notes	Materials
Read or listen to a recording of the book (15 minutes)	• Read through the story, asking lots of questions • Continue to make connections between book and vocabulary board	• Book • Vocabulary board
Vocabulary cards I Spy Game (10 minutes)	• I play this game, or variations of it the first few days ◦ 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 • 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 • Discuss relevant points on the card ◦ You can also play this game in this manner having them find the symbol on their vocabulary board	• Vocabulary cards (student set and teacher set) • Vocabulary board
Circle map review (5 minutes)	• Review the circle map completed yesterday	• Circle map completed yesterday
Labeling activity (10 minutes)	• Do the labeling activity of the parts of the atom • Choose the best version either using words or picture symbols • You can also add color coding as needed	• Labeling activity • Scissors • Glue
Sharing (10 minutes)	• Each student shares their circle map with the group using the communication method of their choice	• Completed circle maps • Communication devices

PowerPoint

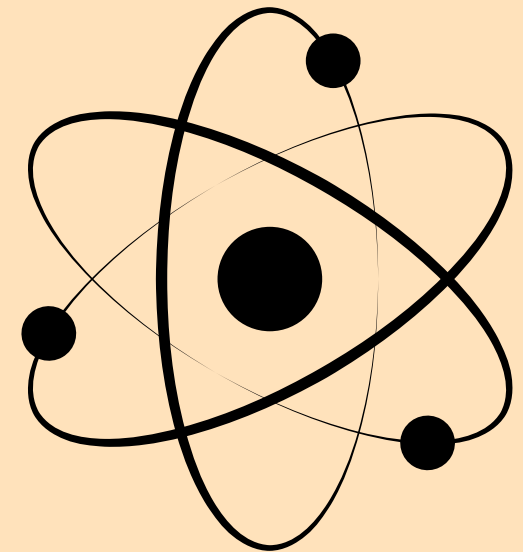
In the nucleus, you find the **protons** and **neutrons**.



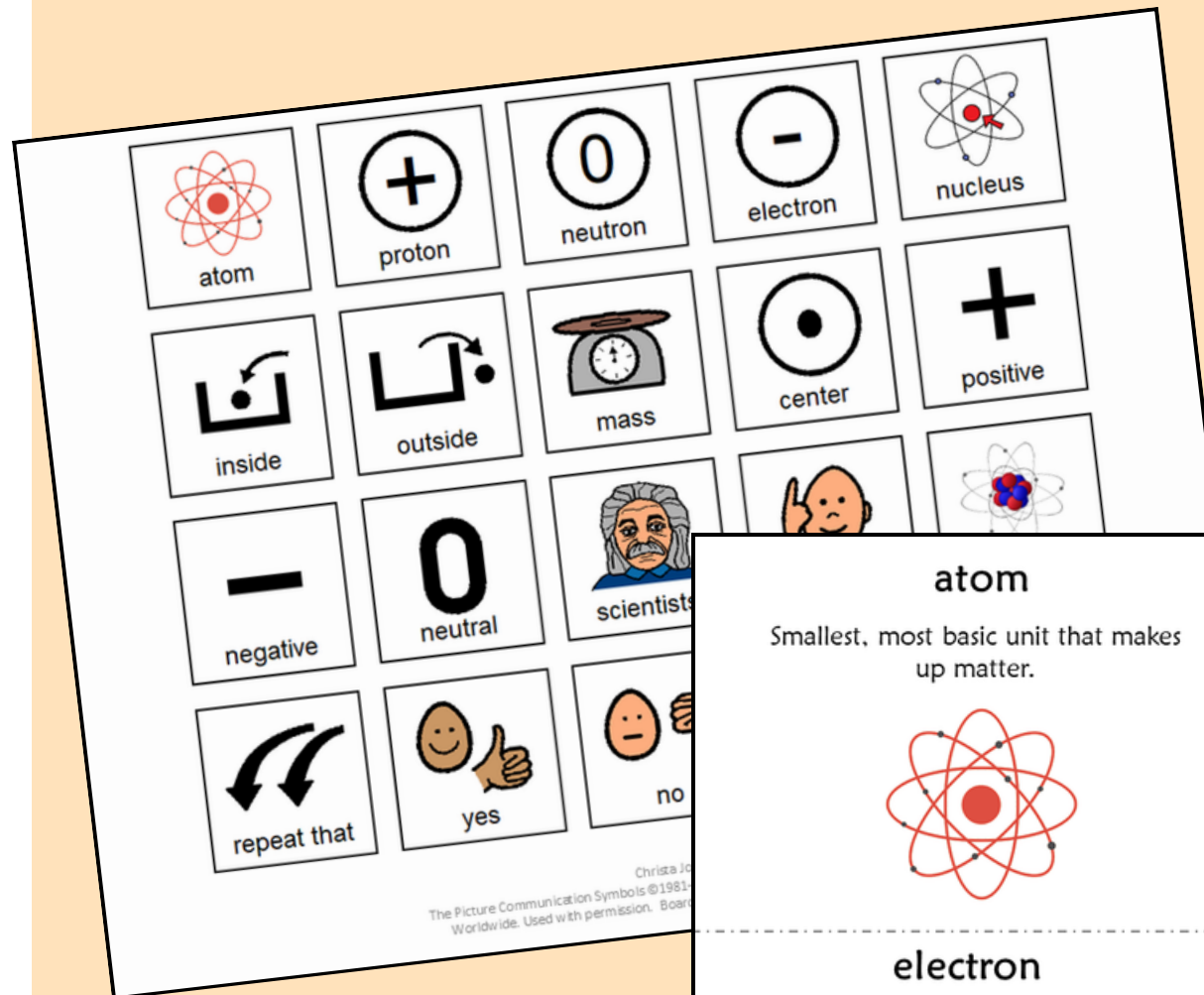
Christa Joy, Special Needs for Special Kids

56-slide **PowerPoint** using photos and simple text.

- ✓ PowerPoint
- ✓ Google Slides
- ✓ MP4 video file

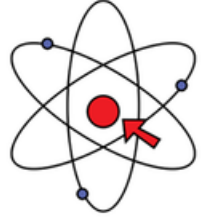


Vocabulary



 This unit comes with a vocabulary board and vocabulary cards.

- Improve **participation**.
- Increase **engagement** in group discussions.
- Daily group activities.

atom Smallest, most basic unit that makes up matter. 	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. 

Christa Joy, Special Needs for Special Kids
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Group Activities

Who am I cards

- Give each student a set of Who am I cards
- Various options/ways to play, but the goal is to have students hold up the person you are talking about. Sometimes there can be more than one correct answer
- Things you can do:
 - Hold up a Who am I card
 - Show a page from the PowerPoint
 - Point to a symbol on the vocabulary board
 - Verbally describe something about the person.
 - Describe their understanding of the atom.

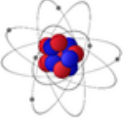
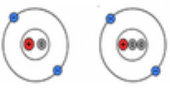


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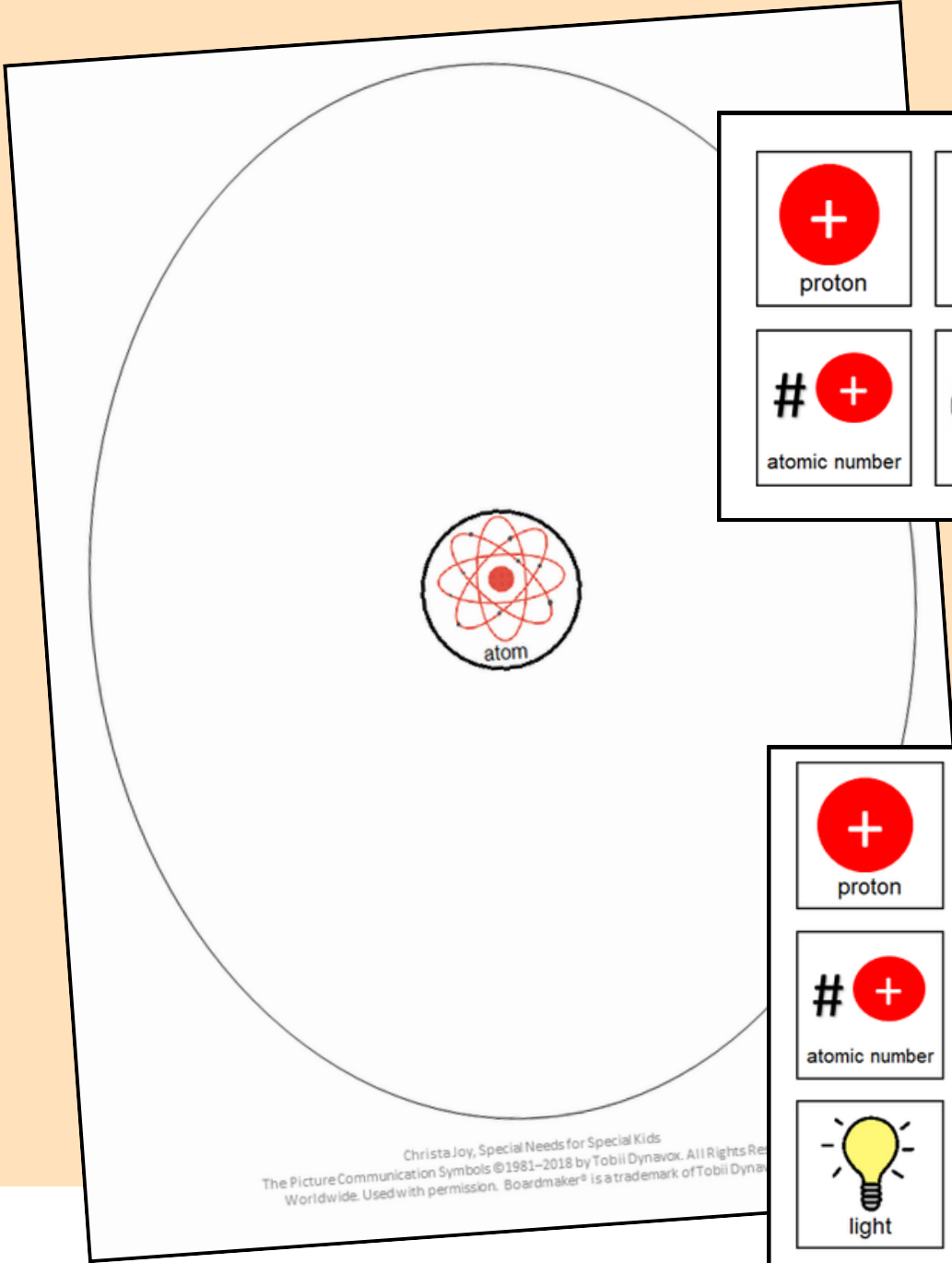
- WHO AM I CARDS
- BINGO

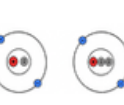
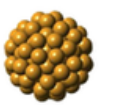
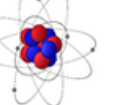
Atoms

 Democritus	 element	 atomic model	 mass number
 atomic number	 JJ Thomson	 proton	 atomic mass
 Ernest Rutherford	 neutron	 electron	 nucleus
 Niels Bohr	 John Dalton	 isotope	 atom

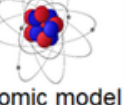
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Circle Map



 proton	 neutron	 electron	 nucleus	 mass number
 atomic number	 isotope	 element	 atomic model	 mass

ERRORLESS VERSION

 proton	 neutron	 huge	 nucleus	 mass number
 atomic number	 isotope	 element	 atomic model	 breakable
 light	 fire	 electron	 thunder	 mass

**WRONG ANSWERS
MIXED IN**

Particle Chart

Fill in the chart about the particles found in an atom.

Particle	Charge	Location
proton		
neutron		
electron		



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Fill in the chart about the particles found in an atom.

Particle	Charge	Location
proton 		
neutron 		
electron 		



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Sorting Activities

- THINGS MADE/NOT MADE OF ATOMS
- ISOTOPEs

atoms	no atoms
idea	time
rock	tree
dog	chair
light waves	dream
music	electricity
book	broccoli
punch	gravity
feelings	water

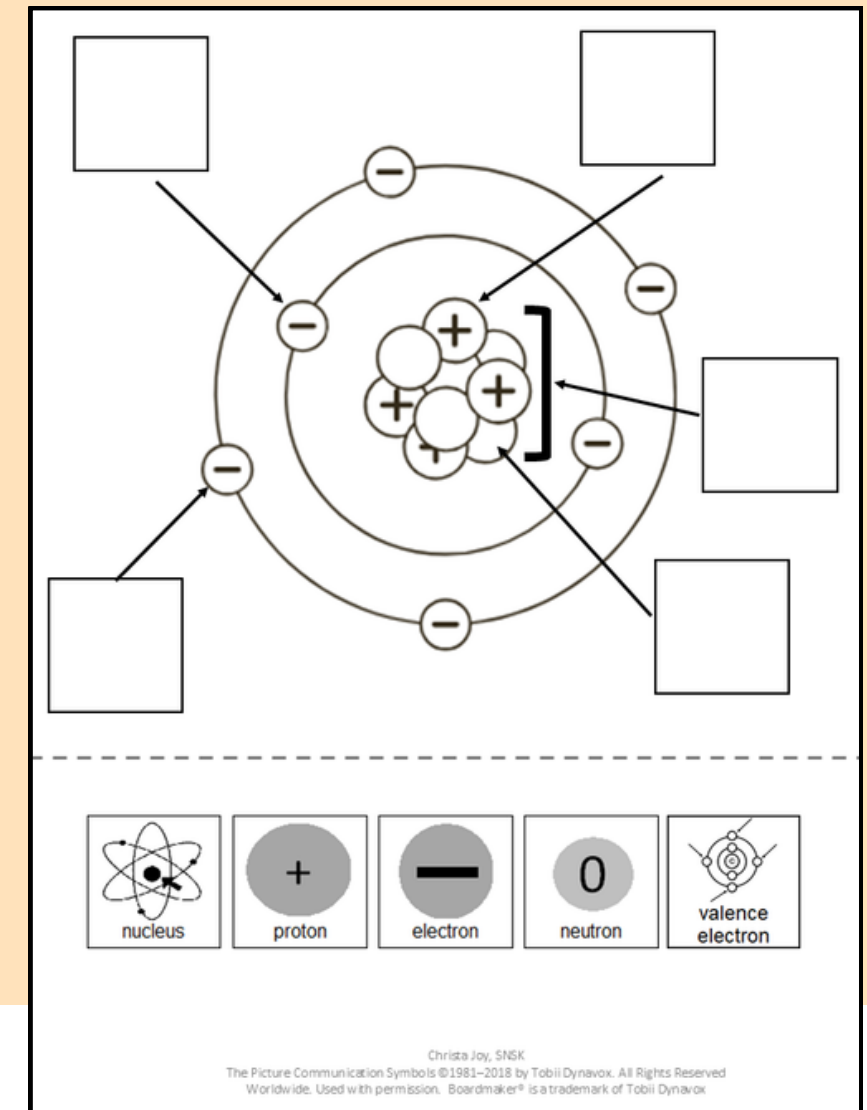
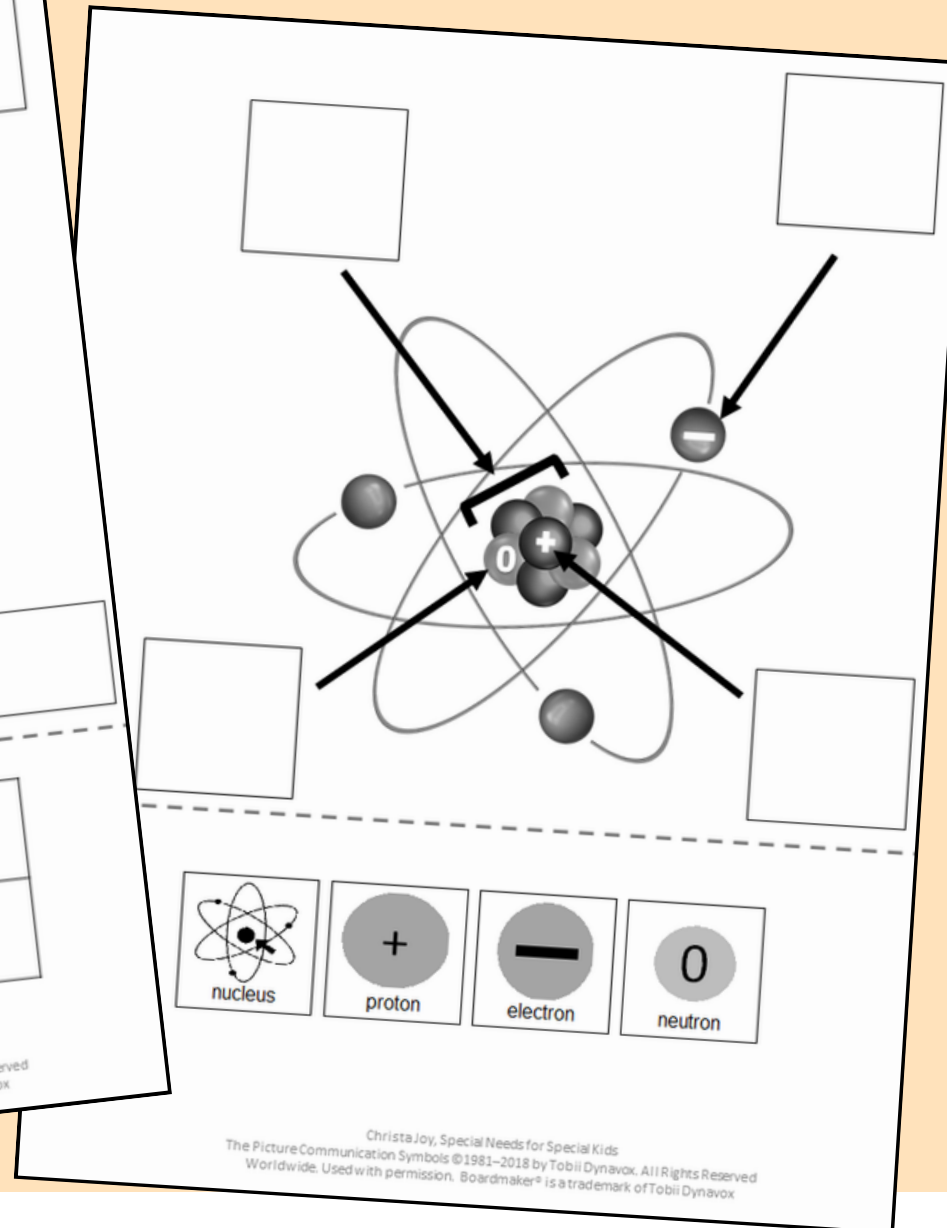
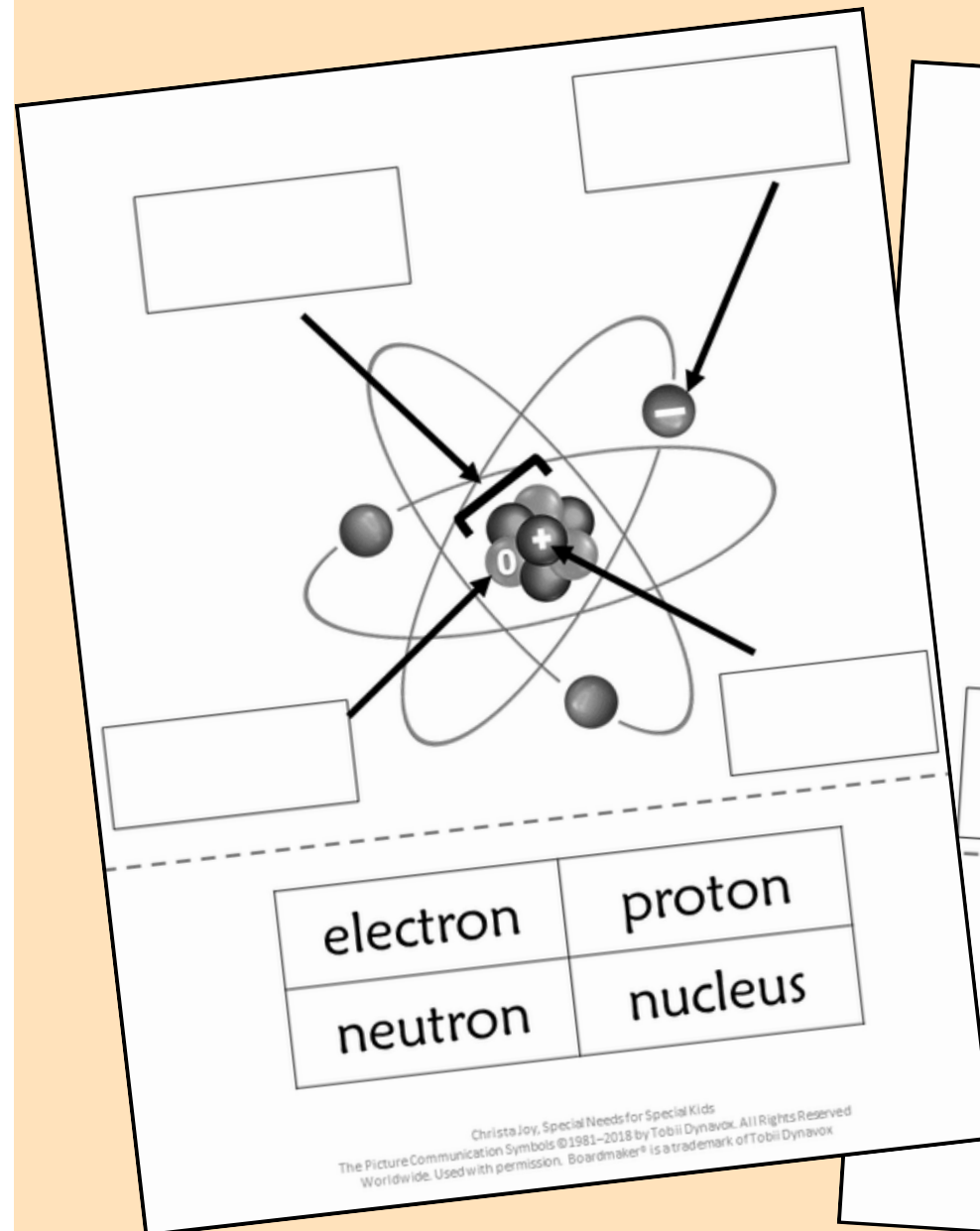
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Carbon	Oxygen	Hydrogen
6 protons 6 neutrons Carbon	1 proton 0 neutrons Hydrogen	6 protons 7 neutrons Carbon
8 protons 9 neutrons Oxygen	6 protons 8 neutrons Carbon	8 protons 8 neutrons Oxygen

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Labeling

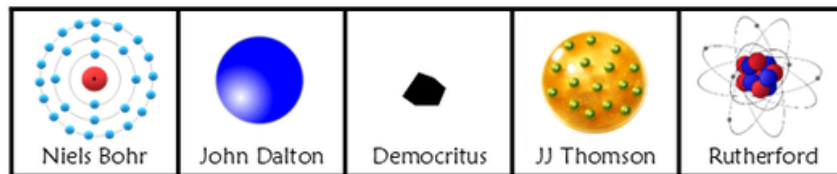
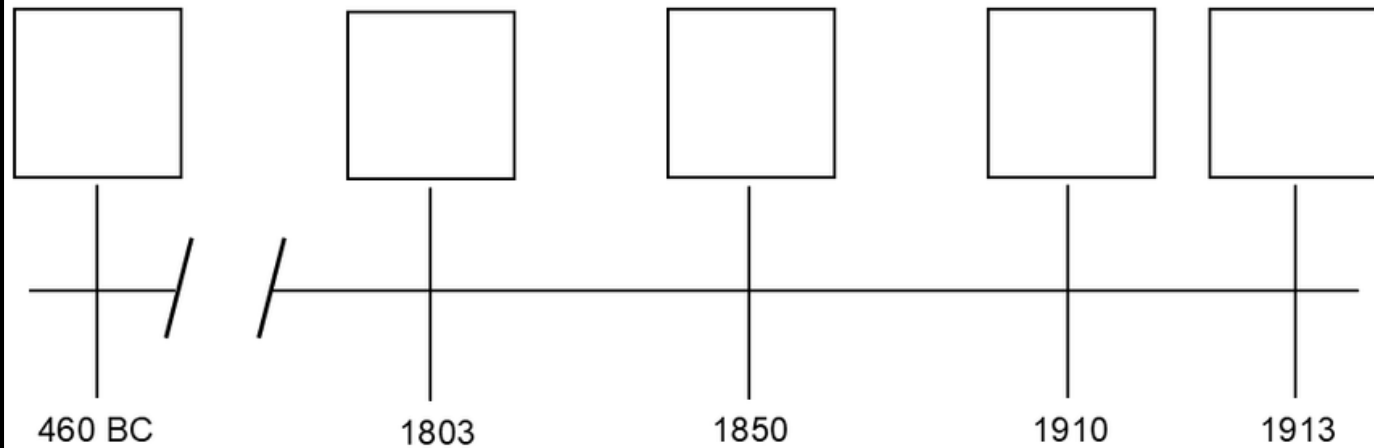
- WORDS
- PICTURES



Development of Atomic Model

- **TIMELINE**
- **MATCHING**

Atomic Model Timeline



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Match the model to each scientist.



Democritus



John Dalton



JJ Thomson



Ernest Rutherford



Niels Bohr



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Atomic Number & Mass Number

What is the **atomic number** for each atom?

A carbon atom has 6 protons.

Atomic number

A fluorine atom has 9 protons.

Atomic number

An iodine atom has 53 protons.

Atomic number

A cobalt atom has 27 protons.

Atomic number

©Christa Joy, SNSK

What is the **mass number** for each atom? Use a calculator if needed.

A helium atom has 2 protons.
A helium atom has 2 neutrons.

Mass number

A lithium atom has 3 protons.
A lithium atom has 4 neutrons.

Mass number

A boron atom has 5 protons.
A boron atom has 6 neutrons.

Mass number

A carbon atom has 6 protons.
A carbon atom has 6 neutrons.

Mass number

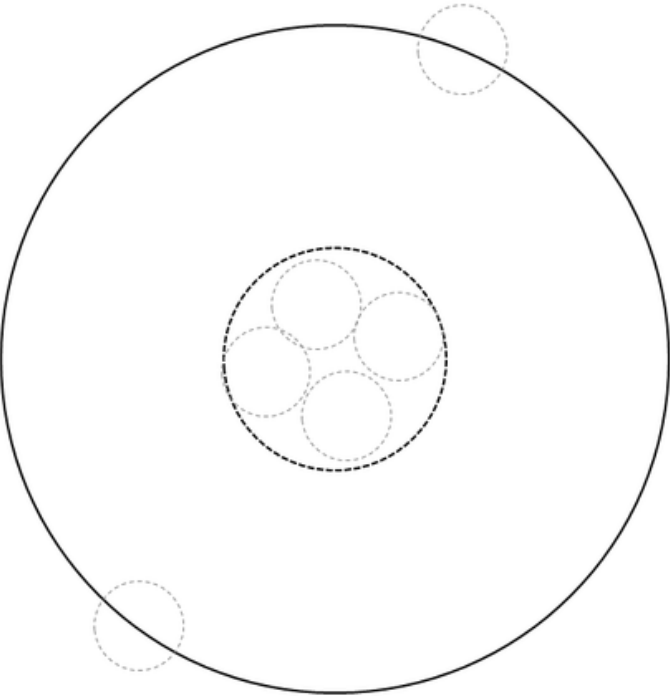
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Build a 2D Atom

- 6 MODELS TO COMPLETE
- COLOR IN CUT & PASTE

Build a helium atom. It has two electrons, two protons, and two neutrons.

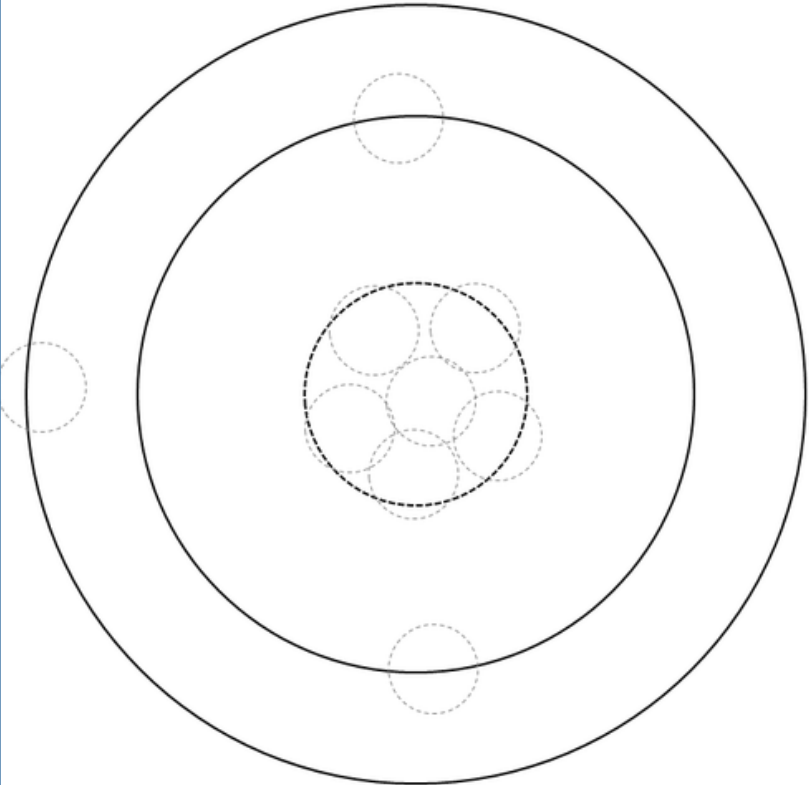
Helium Atom



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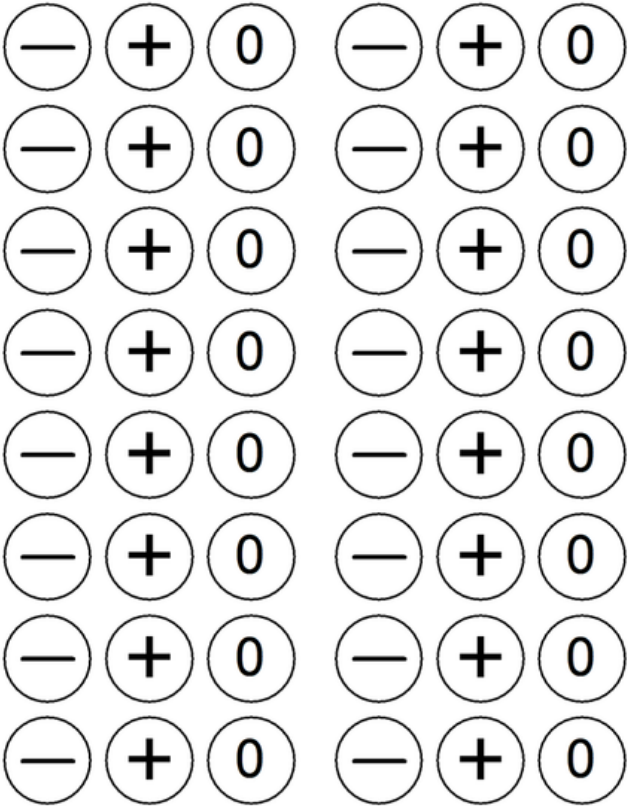
Build a lithium atom. It has 3 electrons, 3 protons, and 3 neutrons.

Lithium Atom



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Electrons, protons, and neutrons to use to build 2D models.

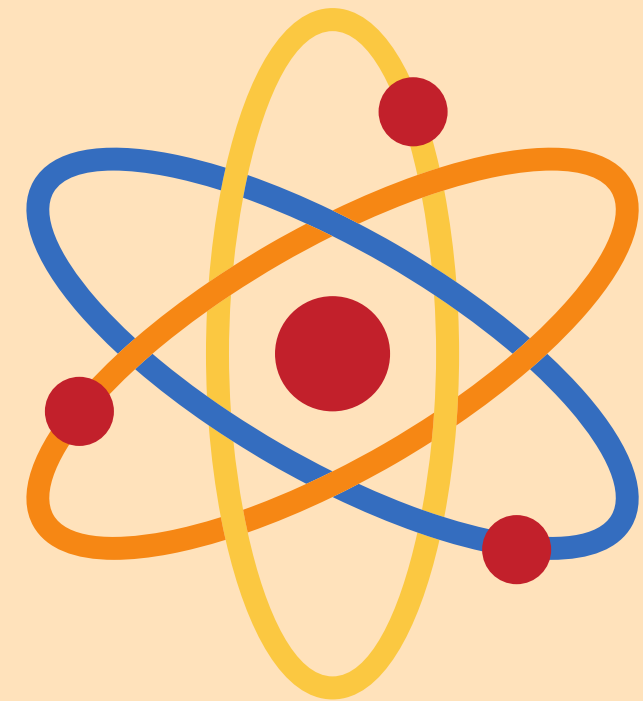
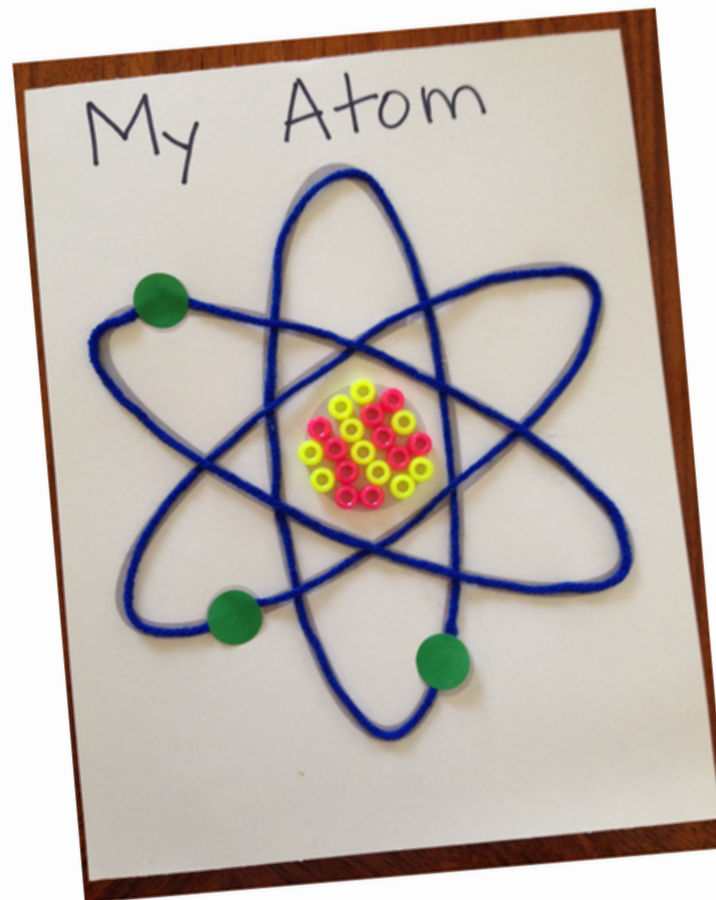


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Build a 3D Atom

- DIRECTIONS
- TEMPLATE

Completed sample



Assessment

- QUIZ
- FINAL ASSESSMENT

The Atom

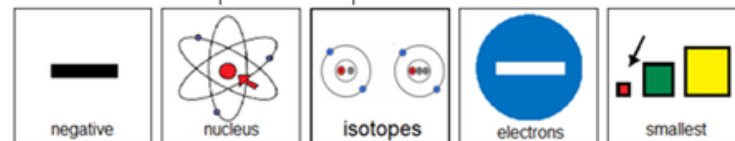
1. The atom is the particle of matter.

2. The is the center of the atom.

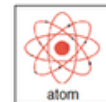
3. rotate around the nucleus in orbits or shells.

4. Isotopes have the same number of and different number of neutrons.

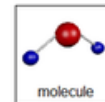
5. Electrons have a charge.



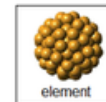
1. What is the name of smallest unit of matter?



atom



molecule

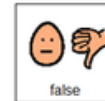


element

2. True or False. The nucleus contains electrons.



true



false



I don't know

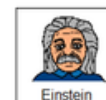
3. Who was the first to use the word "atom"?



Democritus



Robert Boyle



Einstein

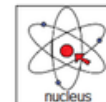
4. The inside of the atom contains:



electrons



marbles



nucleus

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



electrons



protons



neutrons

Version 1

Version 2

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

Q 3



Democritus



Robert Boyle



Einstein

Q 4



electrons



marbles



nucleus

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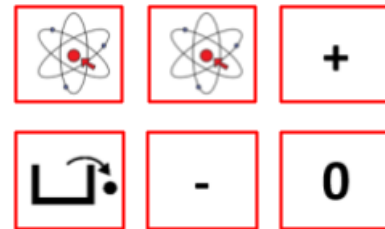
Digital Activities

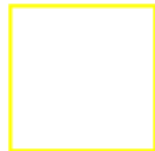


- ✓ Provide extra practice
- ✓ Great independent work centers
- ✓ Include a differentiated set of slides
- ✓ Interactive

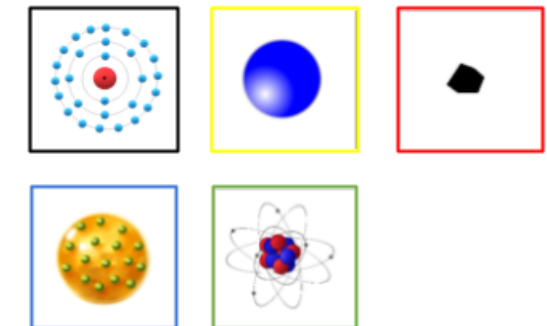
Particle	Charge	Location
proton		
neutron		
electron		

Use the pictures below to complete about particles in an atom.



 Democritus		 John Dalton	
 JJ Thomson		 Ernest Rutherford	
 Niels Bohr			

Match the atomic model to each scientist.



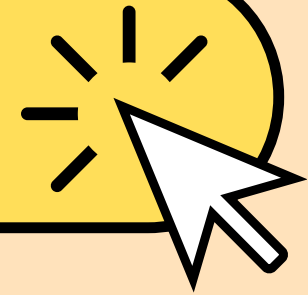
What teachers are saying

I love this activity for my special needs students. This is a great resource for my classroom.

These were great. I like the levels and differentiation—all done for me! My students found them engaging and stayed on task!

**SAVE MONEY AND GET THIS AS PART OF
THE CHEMISTRY BUNDLE.**

CLICK HERE



Christa Joy, M.Ed., DVM