

Atom Project

Name _____ Date _____

My element is _____

Your task will be to make a model of an atom. Your atom should be 3 dimensional and include protons, neutrons and electrons. Remember scientists have difficulty viewing atoms because they are extremely small. Your model is not going to look exactly like an atom no matter what you do, therefore be **CREATIVE!!!!** How can you make your model stand out from everyone else's? The main concepts to be understood by completing this project are...

- A. The only way to view an atom is to make a model of it.
- B. Protons and Neutrons are located in the nucleus
- C. Electrons are located outside the nucleus are various energy levels or shells
- D. Protons and Neutrons are approximately the same mass and electrons are much smaller.
- E. 99.9% of the mass of an atom is in the nucleus.

The Bohr model of an atom will be required to complete your model atom.

Just for clarity purposes—the modern atomic model states electrons can potentially be found at any distance from the nucleus but, depending on it's energy level, has a certain probability of existing more frequently in certain regions. Thank you Albert Einstein!!!!

The 3D model of your atom is **due on Monday, October 7th !!!!!**

Your requirements are...

On a large index card or poster you will include the following information. (You will attach this information to your model somehow)

- A. Element Name
- B. Atomic Number
- C. Chemical Symbol
- D. Metal/Nonmetal/Metalloid
- E. State or Phase at room temp
- F. Boiling point
- G. Freezing Point
- H. No less than 6 Interesting facts, uses, characteristics or properties.

*Choose an element from atomic numbers 2-25, 29-36. Make sure you pick something that you think is interesting so that you can put a lot of interesting information into your project/presentation.

Name: _____
 Period: _____

Date: _____
 Bonus: _____

Project Rubric

Category	Exemplary	Meets Requirements	Inadequate	Missing
	20 pts	17pts	13pts	10 pts
Content Accuracy _____ pts.	All content throughout the project is accurate. There are no factual errors	Most of the content is accurate but some of the information might be inaccurate.	The content is generally acceptable, but much of the information is clearly flawed or inaccurate	Content is typically confusing or contains many factual errors.
Content – present _____ pts.	All criteria from assignment has been provided	Most information from assignment has been provided	Required content is too brief or missing.	What are you talking about??
Appearance _____ pts.	Atom project is constructed nearly 3-D and generally attractive looking showing the presenter spent time and effort	Atom project is nicely put together, shows effort, but lacks creativity.	Atom project shows little effort or creativity.	Atom project poorly constructed with little care or thought.
Atom Model Accuracy _____ pts.	Atom Model had the appropriate number of protons, neutrons and electrons they are located in the appropriate places and can be distinguished from one another.	Atom is mostly accurate, but some particles are inaccurately displayed.	Most of the atom project is inaccurately put together.	Atom failed to properly display protons, neutrons, and electrons.
Presentation of Model to the Class _____ pts.	Student speaks clearly and with confidence. Student faces class. Student is able to answer questions about the model.	Student speaks clearly. Student faces class. Student is able to answer most questions about the model.	Student is difficult to hear or understand. Student does not face class. Student not able to answer most questions	Student is unable to present model. Student is unable to answer questions.

Total Grade on Atom Project _____