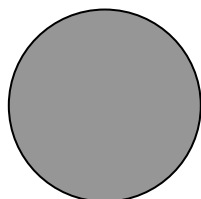
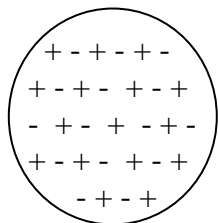


Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

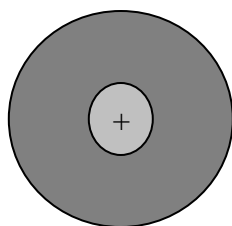
### Atomic Models



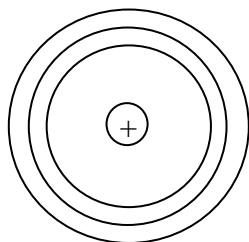
\_\_\_\_\_ Model  
Developed by \_\_\_\_\_  
Using \_\_\_\_\_



\_\_\_\_\_ Model  
Developed by \_\_\_\_\_  
Through \_\_\_\_\_ experiments



\_\_\_\_\_ Model  
Developed by \_\_\_\_\_  
Through \_\_\_\_\_ experiments



\_\_\_\_\_ Model  
Developed by \_\_\_\_\_  
Through \_\_\_\_\_ experiments

1. Write the **nuclear symbol** for the element that contains 19 protons, 19 electrons and 20 neutrons.
  
2. Write the **nuclear symbol** for an element that contains 34 protons, 34 electrons and 41 neutrons.
  
3. What is the **hyphenated notation** of the atom with 15 protons and 16 neutrons?

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

Answer the following questions. Simple enough, right?

1. What subatomic particles are found in (make up) the nucleus?

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2. What subatomic particles determine the mass of an atom?

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3. What **2** things do all atoms and ions of the same element (isotopes) have in common?

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4. What **2** things can differ between neutral (not charged) isotopes of an atom?

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5. Are most atomic masses on the periodic table whole numbers? Explain why or why not.

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7. What subatomic particle can be used to determine the identity of an element?

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