$\qquad$

| Target | 1 | 2 (all of 1 plus) | 3 (all of 2 plus) | 4 (all of 3 plus) |
| :---: | :---: | :---: | :---: | :---: |
| LE 5.7 <br> Preparedness | Does not complete formative or summative in an effortful and timely manner, is not engaged, does not arrive on time with class materials ready to learn, does not communicate when issues arise | Completes formative or summative in an effortful or timely manner, is sometimes engaged, sometimes arrives on time with class materials ready to learn, sometimes communicates when issues arise | Completes formative or summative in an effortful and timely manner, remains engaged, arrives on time with materials ready to learn, communicates when issues arise | Completes formative or summative in an effortful and timely manner, remains engaged, arrives on time with materials ready to learn, communicates when issues arise, and is reflective on strengths and challenges within your preparedness skill |
| LE 5.6 Precision | Recognizes the importance of products that are planned, edited, and completed with care | Attempts products that are planned, edited, and completed with care | Creates products that are planned, edited, and completed with minimal errors | Creates products that are planned, edited, and completed free from errors or need for revision |
| Phusikos 1 | I can identify an atom | I can identify the parts of an atom in a diagram | I can draw or build a representation of an atom with atomic numbers 1-10. | I can build a representation of an atom with atomic numbers 11-18. |
| MP2 <br> Atoms, Bonding | I can diagram the shell structure of an atom and demonstrate an understanding of valence electrons | (all of 1 plus) I can use the periodic table to predict properties of atoms of elements based on patterns of electrons in atoms | (all of 2 plus) I can predict and diagram bonding between atoms | (all of 3 plus) Nailed it! |

## Draw an Atom (Orbital Models)

## Hydrogen

Atomic Number $\qquad$
Number of Protons $\qquad$
Mass \# $\qquad$
Mass \# - number of Protons = Number of Neutrons $\qquad$
Number of Electrons $\qquad$
\# Electrons in $1^{\text {st }}$ shell $\qquad$ \# Electrons in 2 ${ }^{\text {nd }}$ shell $\qquad$
\# Electrons in 3 ${ }^{\text {rd }}$ shell $\qquad$

## Beryllium

Atomic Number $\qquad$
Number of Protons $\qquad$
Mass \# $\qquad$
Mass \# - number of Protons =
Number of Neutrons $\qquad$
Number of Electrons $\qquad$
\# Electrons in $1^{\text {st }}$ shell $\qquad$
\# Electrons in $2^{\text {nd }}$ shell $\qquad$
\# Electrons in $3^{\text {rd }}$ shell $\qquad$

## Carbon

Atomic Number $\qquad$
Number of Protons $\qquad$
Mass \# $\qquad$
Mass \# - number of Protons =
Number of Neutrons $\qquad$
Number of Electrons $\qquad$
\# Electrons in $1^{\text {st }}$ shell $\qquad$
\# Electrons in $2^{\text {nd }}$ shell $\qquad$
\# Electrons in $3^{\text {rd }}$ shell $\qquad$


## Oxygen

Atomic Number $\qquad$
Number of Protons $\qquad$
Mass \# $\qquad$
Mass \# - number of Protons =
Number of Neutrons $\qquad$
Number of Electrons $\qquad$
\# Electrons in $1^{\text {st }}$ shell $\qquad$
\# Electrons in $2^{\text {nd }}$ shell $\qquad$
\# Electrons in $3^{\text {rd }}$ shell $\qquad$

## Sodium

Atomic Number $\qquad$
Number of Protons $\qquad$
Mass \# $\qquad$
Mass \# - number of Protons =
Number of Neutrons $\qquad$
Number of Electrons $\qquad$
\# Electrons in $1^{\text {st }}$ shell $\qquad$
\# Electrons in $2^{\text {nd }}$ shell $\qquad$
\# Electrons in $3^{\text {rd }}$ shell $\qquad$

## Aluminum

Atomic Number $\qquad$
Number of Protons $\qquad$
Mass \# $\qquad$
Mass \# - number of Protons =
Number of Neutrons $\qquad$
Number of Electrons $\qquad$
\# Electrons in $1^{\text {st }}$ shell $\qquad$
\# Electrons in $2^{\text {nd }}$ shell $\qquad$
\# Electrons in 3rd ${ }^{\text {rd }}$ shell $\qquad$

## Chlorine

Atomic Number $\qquad$
Number of Protons $\qquad$
Mass \# $\qquad$
Mass \# - number of Protons =
Number of Neutrons $\qquad$
Number of Electrons $\qquad$
\# Electrons in $1^{\text {st }}$ shell $\qquad$
\# Electrons in $2^{\text {nd }}$ shell $\qquad$
\# Electrons in $3^{\text {rd }}$ shell $\qquad$


