





## Basic instructions:

Remember, you can prepare as little or as much as your desire to match the needs of your students.

- Element symbol is written in the middle circle.
- Cut the outer circle.
- Cut out as many pie slices as there are 'missing' valence electrons.
  - For example, Mg would only have two slices left; F would have seven.
- Optional: Color in the small circles to represent the electrons.
  - You could develop a color-coding for the electrons, e.g. metals all one color, non-metals another or a different color for each number of valence electrons.
- Students match a metal with a non-metal for 1:1 ionic compounds.

More science teaching resources at <https://lee.trampleasure.net>

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I often move to more complex models. If you desire, the next page has a model you could use if you want students to think about the non-valence electrons as well.

