

## PROPERTIES OF METALS and NON-METALS

<b>Metals</b>	<b>Non-metals</b>
<b>Solid</b>	<b>Gases, liquids, solids</b>
<b>Shiny</b>	<b>Usually not shiny</b>
<b>Conduct heat</b>	<b>Does not conduct heat- insulator</b>
<b>Conduct electricity</b>	<b>Does not conduct electricity- insulator</b>
<b>Malleable</b>	<b>Not malleable</b>
<b>Ductile</b>	<b>Not ductile</b>

## MORE PROPERTIES OF METALS AND NON-METALS

<b>Metals</b>	<b>Non-metals</b>
<b>1,2 or 3 valence electrons</b>	<b>4, 5, 6, 7, or 8 valence electrons</b>
<b>low ionization energy</b>	<b>High ionization energy</b>
<b>forms metallic bonds in solid state</b>	<b>Forms ionic or covalent bonds</b>
<b>lose electrons to form positive ions (cations)</b>	<b>Gain electrons to form negative ions (anions)</b>