METALS, NONMETALS & METALLOIDS

Classifying elements on the Periodic Table
3 DIFFERENT TYPES OF ELEMENTS

MÉTALLES  MÉTAUX  NONMÉTALLES
LOCATION

- Metals: On the left and in the middle
- Metalloids: On the stair-step
- Nonmetals: On the right
FOR THE FOLLOWING CHARACTERISTICS, PREDICT WHICH IS BEING DESCRIBED, A METAL OR A NONMETAL.
LUSTER

• “Shiny-ness”

Metals
BRITTLE

- Easily broken, fragile

Nonmetals
DULL

- Not shiny

Nonmetals
MALLEABLE

- Means "bendable"

Metals
GOOD CONDUCTOR

• Able to conduct electricity & heat

Metals
EXIST AS GASES

• These elements are usually found as a gas
USUALLY A SOLID

- Found in nature in solid form
- (Mercury is an exception)
GOOD INSULATORS

• Keep electricity from flowing (bad conductors)

Nonmetals
TO REVIEW...

<table>
<thead>
<tr>
<th>Metals</th>
<th>Nonmetals</th>
</tr>
</thead>
<tbody>
<tr>
<td>On the left &amp; middle of the PT</td>
<td>On the right of the PT</td>
</tr>
<tr>
<td>Luster</td>
<td>Dull</td>
</tr>
<tr>
<td>Malleable</td>
<td>Brittle</td>
</tr>
<tr>
<td>Good Conductors</td>
<td>Good Insulators (Bad conductors)</td>
</tr>
<tr>
<td>Usually Solid</td>
<td>Usually Gases</td>
</tr>
</tbody>
</table>
BUT WHAT ABOUT METALLOIDS?
METALLOIDS ARE SOMEWHERE BETWEEN METALS AND NONMETALS

- They can have properties of both metals and nonmetals
- Example: They can be shiny, but may also be brittle
THEY ARE

SEMI-CONDUCTORS

• They allow some electricity to pass through, but not all of it

• This makes them useful in computer chips