

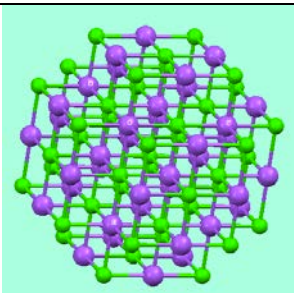
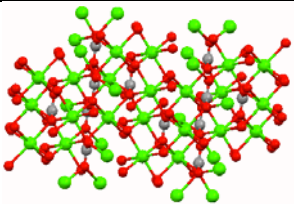
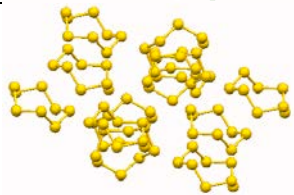
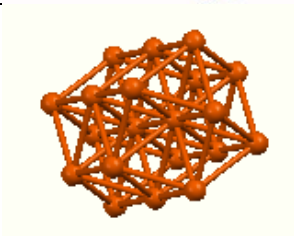
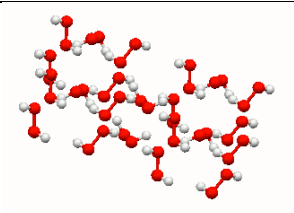
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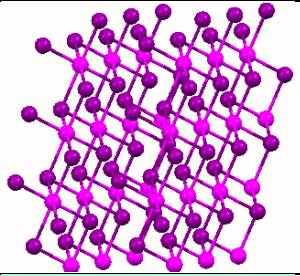
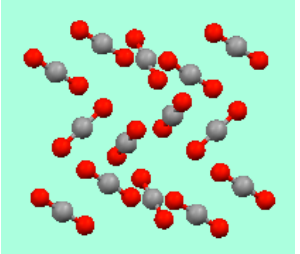
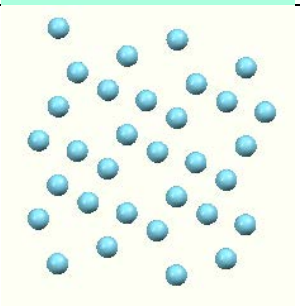
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## Unit 6 – Worksheet 2

### Why Structure is Important

In the table below, identify the type of solid (atomic, molecular, ionic) each substance forms. Then predict in which phase (solid, liquid or gas) each substance would exist on the Earth, on Mercury and on Pluto.

Substance	Crystal structure	Type	melting pt (°C) boiling pt (°C)	Phase at room temp on
NaCl			801 1413	Earth (25°C)  Mercury (450°C)  Pluto (-230°C)
CaCO <sub>3</sub>			520 decomposes at 825	E  M  P
S <sub>8</sub>			115 444	E  M  P
Cu			1084 2567	E  M  P
H <sub>2</sub> O <sub>2</sub>			-0.41 150	E  M  P

PbI <sub>2</sub>			402 954	E M P
CO <sub>2</sub>			-78 -57	E M P
Ar			-189 -186	E M P

Account for differences in the melting and boiling points of the three types of structures.

Predict which of these substances would conduct electricity when molten.

Would any of these conduct electricity as a solid?