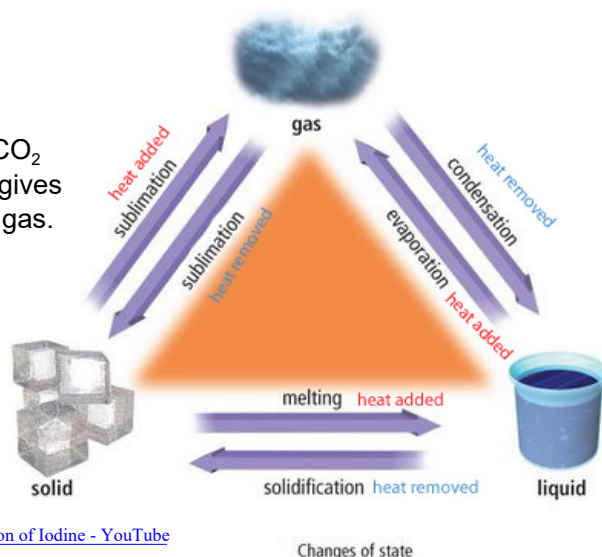


Changing States

Change of state is when the physical state of a substance is transformed into another state. Copy the diagram below and discuss.

Ex) Dry Ice

Chunk of Frozen CO_2 gains energy and gives off a cloud of CO_2 gas.



[Chemistry experiment 47 - Sublimation of Iodine - YouTube](#)



NEXT »



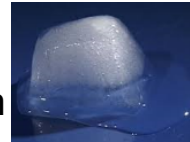
While dry ice looks like it would be cold, it's extremely dangerous to the touch and can cause severe burns.

Dry ice is **frozen carbon dioxide**. A block of dry ice has a surface temperature of -109.3 degrees Fahrenheit (-78.5 degrees C). Dry ice also has the very nice feature of **sublimation** -- as it breaks down, it turns directly into carbon dioxide gas rather than a liquid. The super-cold temperature and the sublimation feature make dry ice great for refrigeration. For example, if you want to send something frozen across the country, you can pack it in dry ice. It will be frozen when it reaches its destination, and there will be no messy liquid left over like you would have with normal ice.

Fun Fact What is the difference between a gas and a vapor?

- A substance is a gas if it exist as a gas at room temperature (Ex. Carbon Dioxide & Oxygen)
- A substance is a vapor if it exist as a solid or liquid at room temperature (Ex. Water vapor or perfume vapors)

Melting - change from solid to liquid
- requires heat in order to happen



Vaporization - change from liquid to gas
- requires heat in order to happen



condensation - change from gas to liquid
- loss of heat (Cooling)



Freezing - change from liquid to solid
- loss of heat (cooling)



Sublimation - change of solid right to gas
-or change of gas to solid



Ex) Dry Ice

Ex) Frost on
Windows on bitterly
cold days

Attachments

Grade 8 Science Fluids 65.pdf

Grade 8 Science Fluids 67.pdf

Grade 8 Science Fluids 68.pdf

Grade 8 Science Fluids 70.pdf