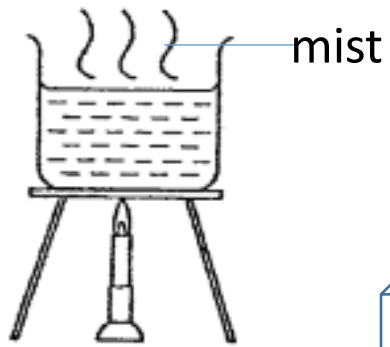
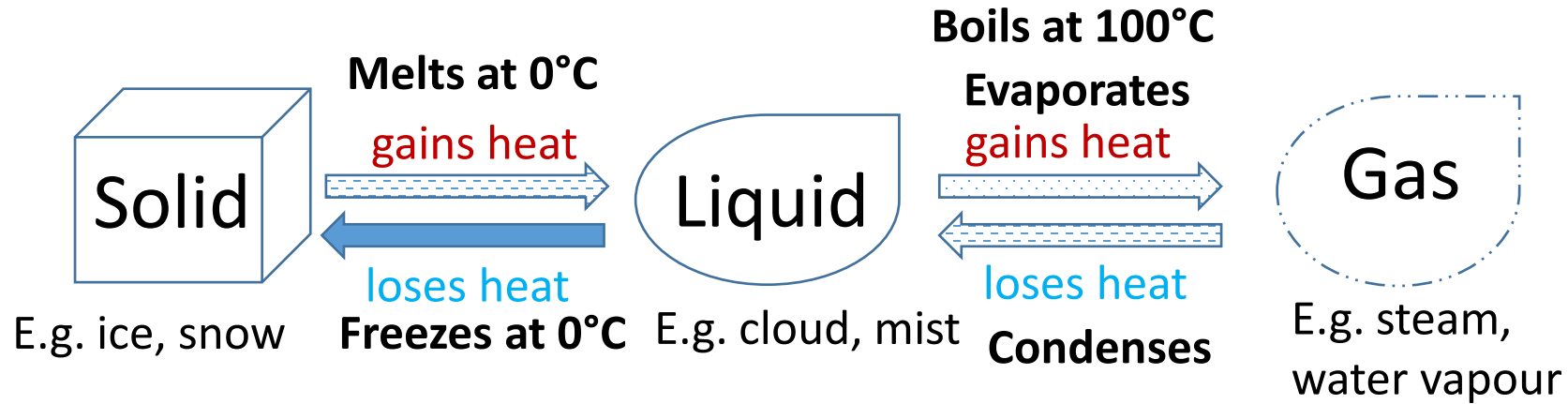
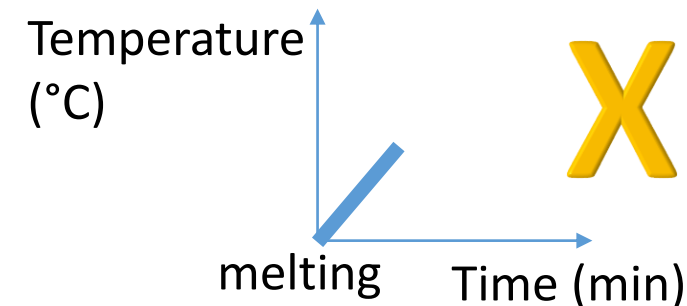
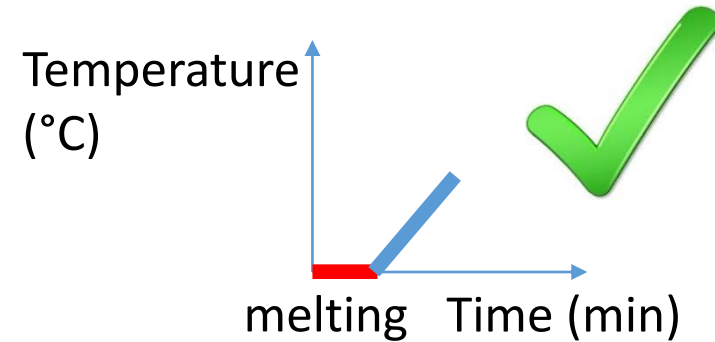
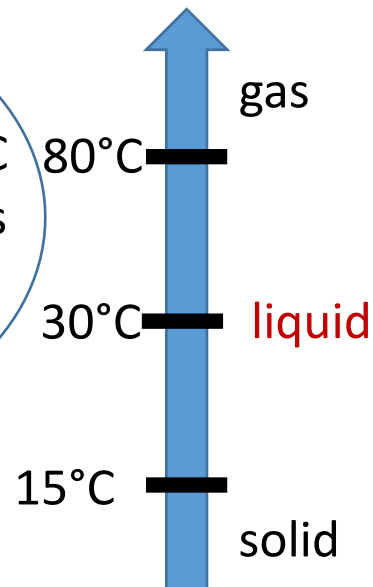
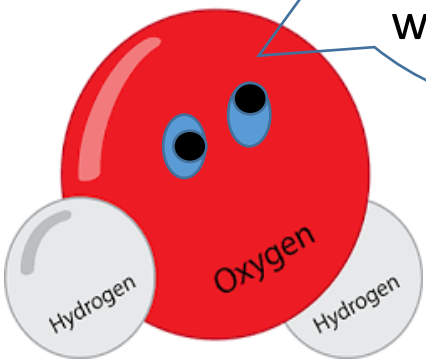




Water



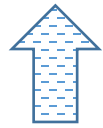
Substance X's boiling point is 80°C and melting point is 15°C . At what state will it be at 30°C ?



Pure water boils at 100°C and freezes at 0°C .

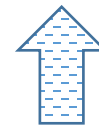
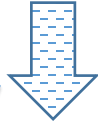
Boiled water has no oxygen in it. The higher the temperature of the water, the lesser oxygen in it. After the water is placed on table, the oxygen in the air will dissolve in the water.

Evaporation rate

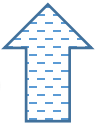


Wind

Humidity



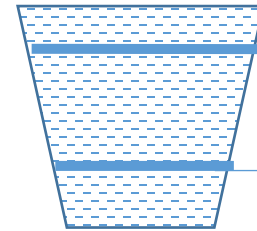
Temperature



Exposed surface Area

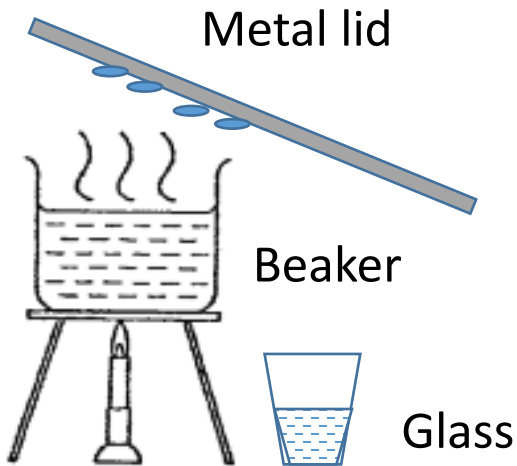


Humid: lots of water vapour in the air
Dry: Little water vapour in the air



Larger exposed surface area

Smaller exposed surface area



Metal lid

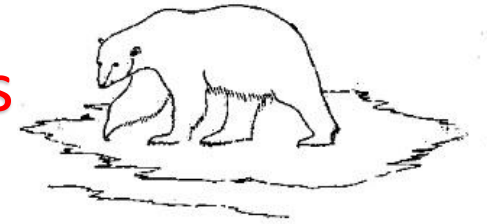
Beaker

Glass

Memorize!

The water in the beaker **gains heat from the flame** and **evaporates into warm water vapour**. The warm water vapour touches the cooler inner surface of the metal lid, **loses heat and condenses into water droplets**. The water droplets **get heavy** and drip into the glass.

Why do polar bear shake off water from its body after a swim?



When water evaporates, heat is removed together with the water so the polar bear will feel cooler. The polar bear removes water from its body so there will be less water evaporation from its body, thus less heat removed and it will not be cold.

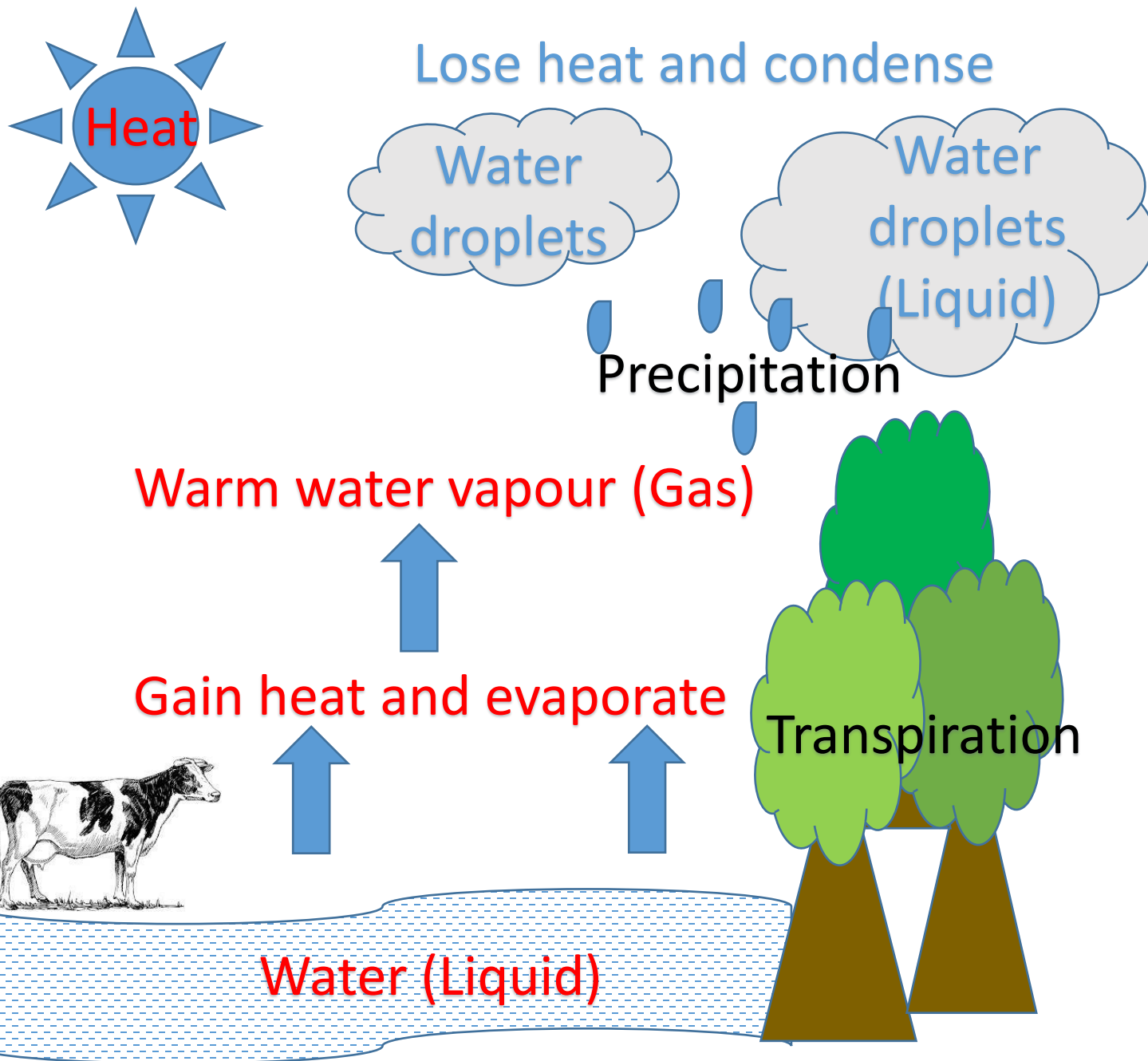
Compare!

Evaporation

- Occurs at all temperature and at all time.
- Occurs at the surface of the liquid

Boiling

- Occurs at fixed temperature
- Occurs throughout the liquid



Water Cycle

- **Ensure continuous supply of fresh water for the survival of living things**
- Main source of energy: **Heat** from the Sun
- 2 processes involved: **Evaporation and Condensation**
- Water is precious as it is limited on Earth.
- Water gets polluted through human activities like littering, oil spills and deforestation.
- We need to conserve water.
- **Reduce**: Use mug when brushing teeth, take shorter shower
- **Reuse**: Use water for washing rice to water plants
- **Recycle**: NEWater treatment