

# Changing Materials



The candle wax is **reversible** as it can change between solid and liquid depending on the heat. The wick (string) is **irreversible** as when it burns, it cannot change

**Reversible change:** when materials can change state, then back again, for example, candle wax.

**Irreversible change:** when materials can change state, but cannot change back, for example, burning wood.

Heat is often the cause of changing state.

Different materials have different temperatures when they turn from solids to liquids, to gases, and back.

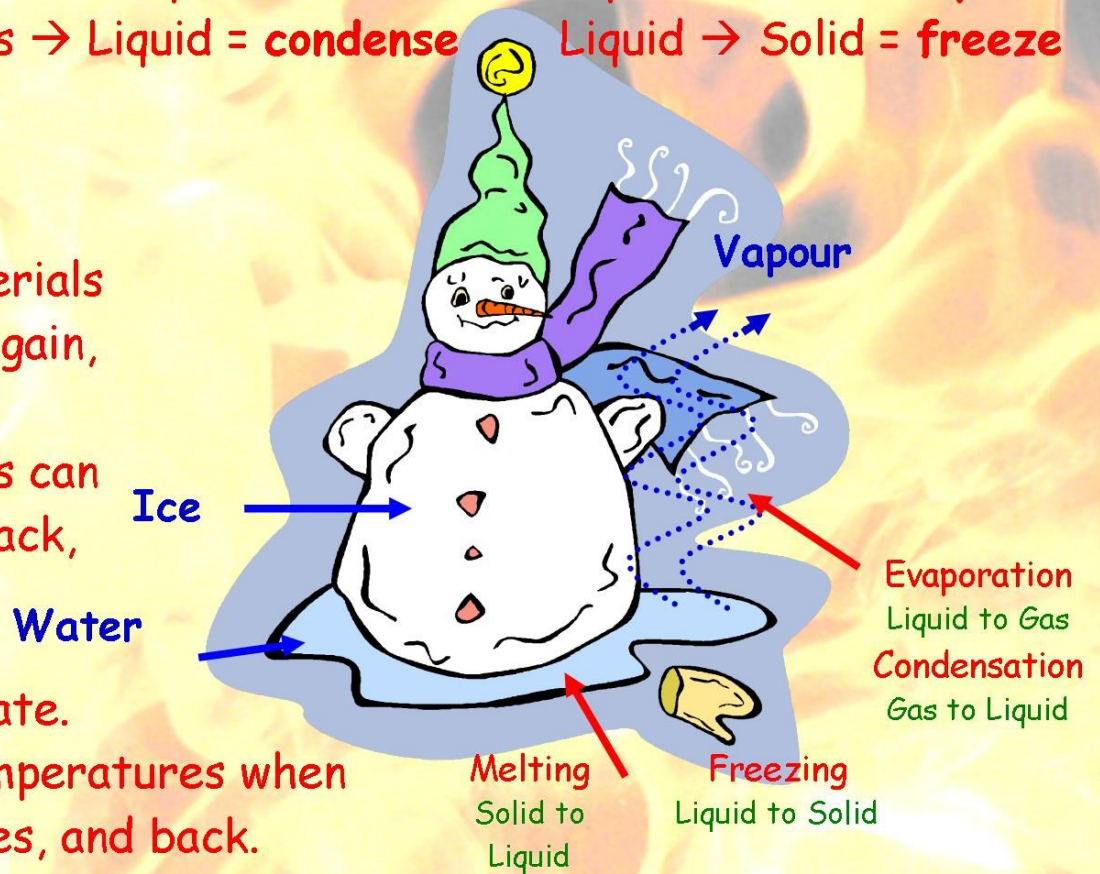
There are 3 states: **solid, liquid or gas**. Some materials can change between these states. For water:

Solid → Liquid = **melt**

Liquid → Gas = **evaporate**


Gas → Liquid = **condense**

Liquid → Solid = **freeze**





# Changing



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Gas → Liqui

**Reversible change: when materials**

# Materials



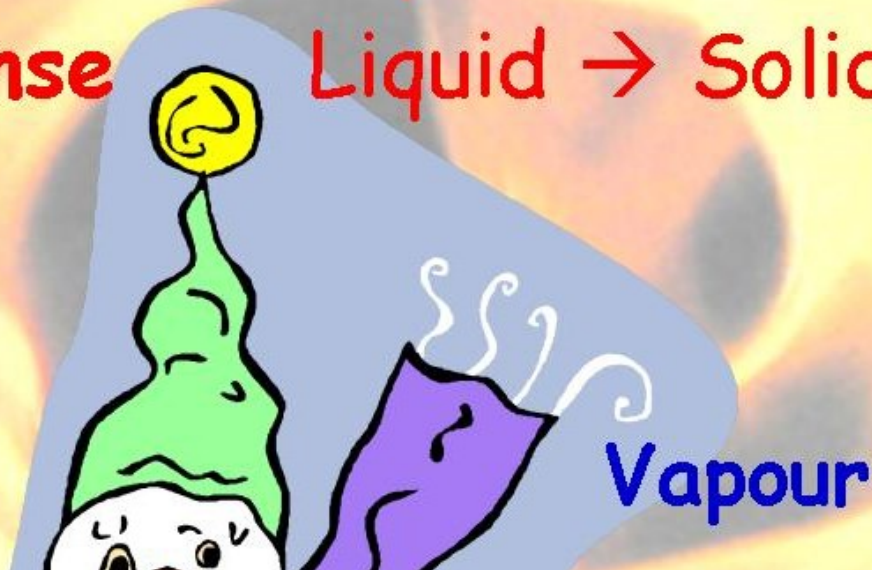
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Liquid  $\rightarrow$  Solid = condense

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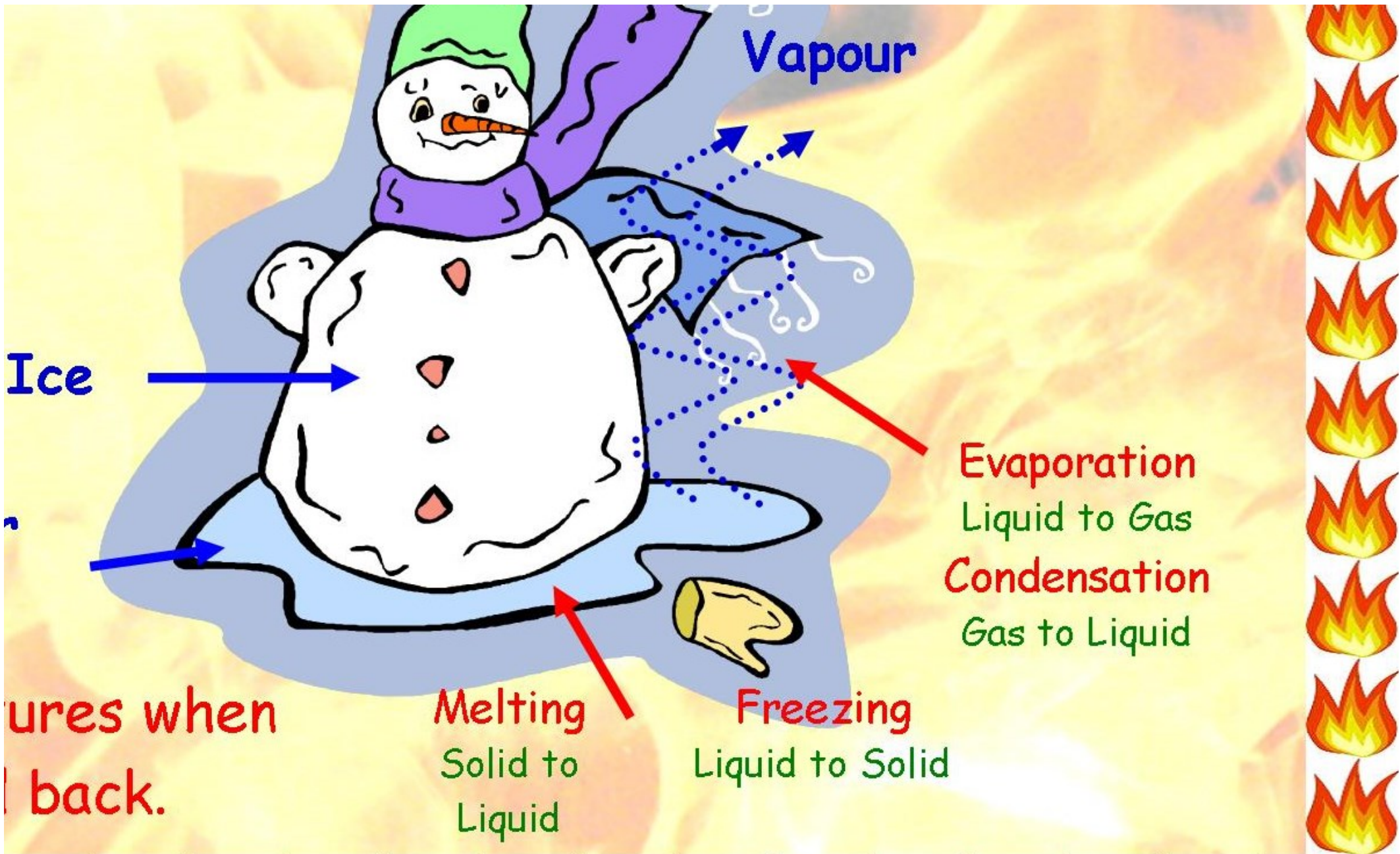
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Water

Heat is often the cause of changing state.

Different materials have different temperatures. When they are heated, they turn from solids to liquids, to gases, and back to solids.







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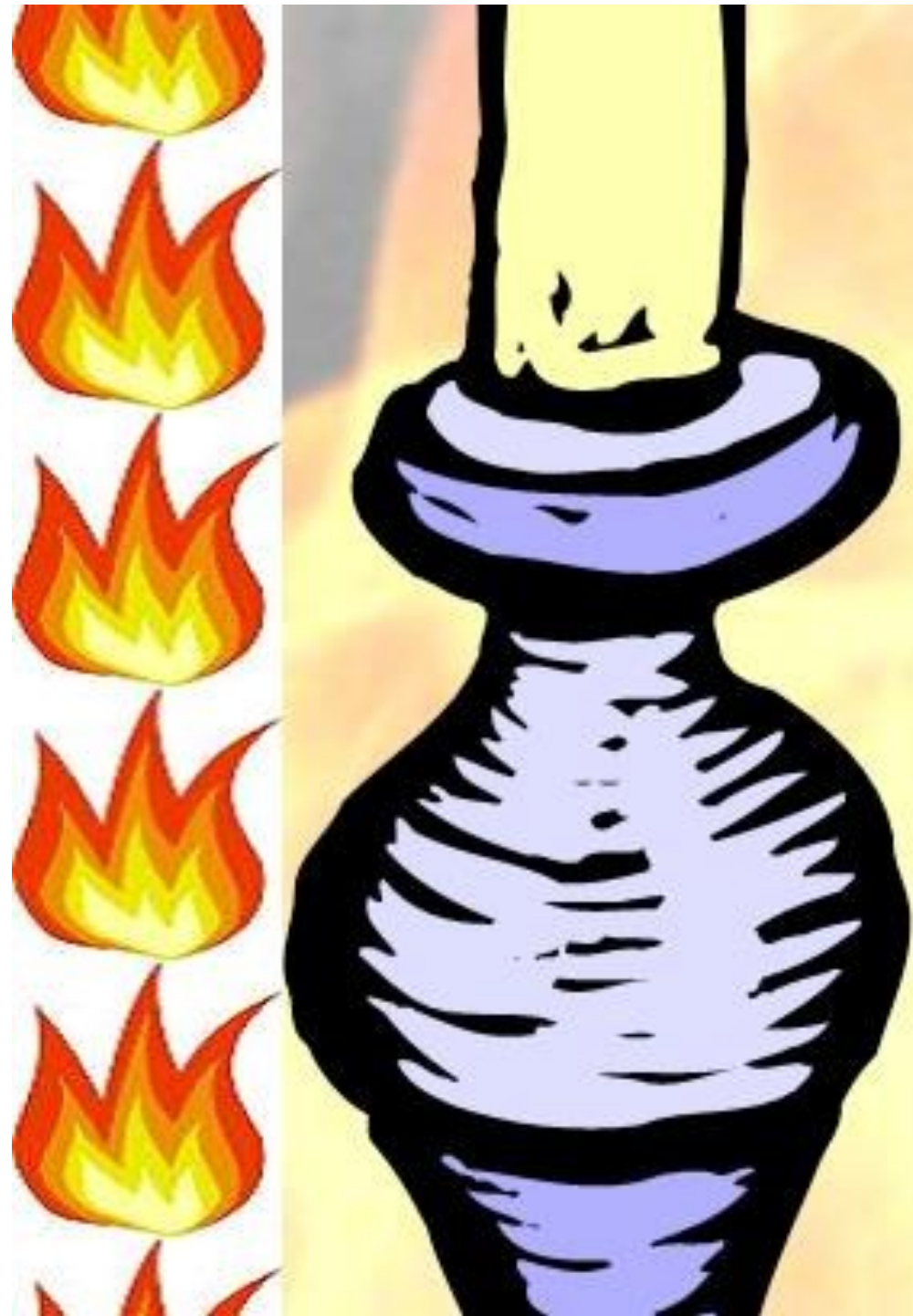




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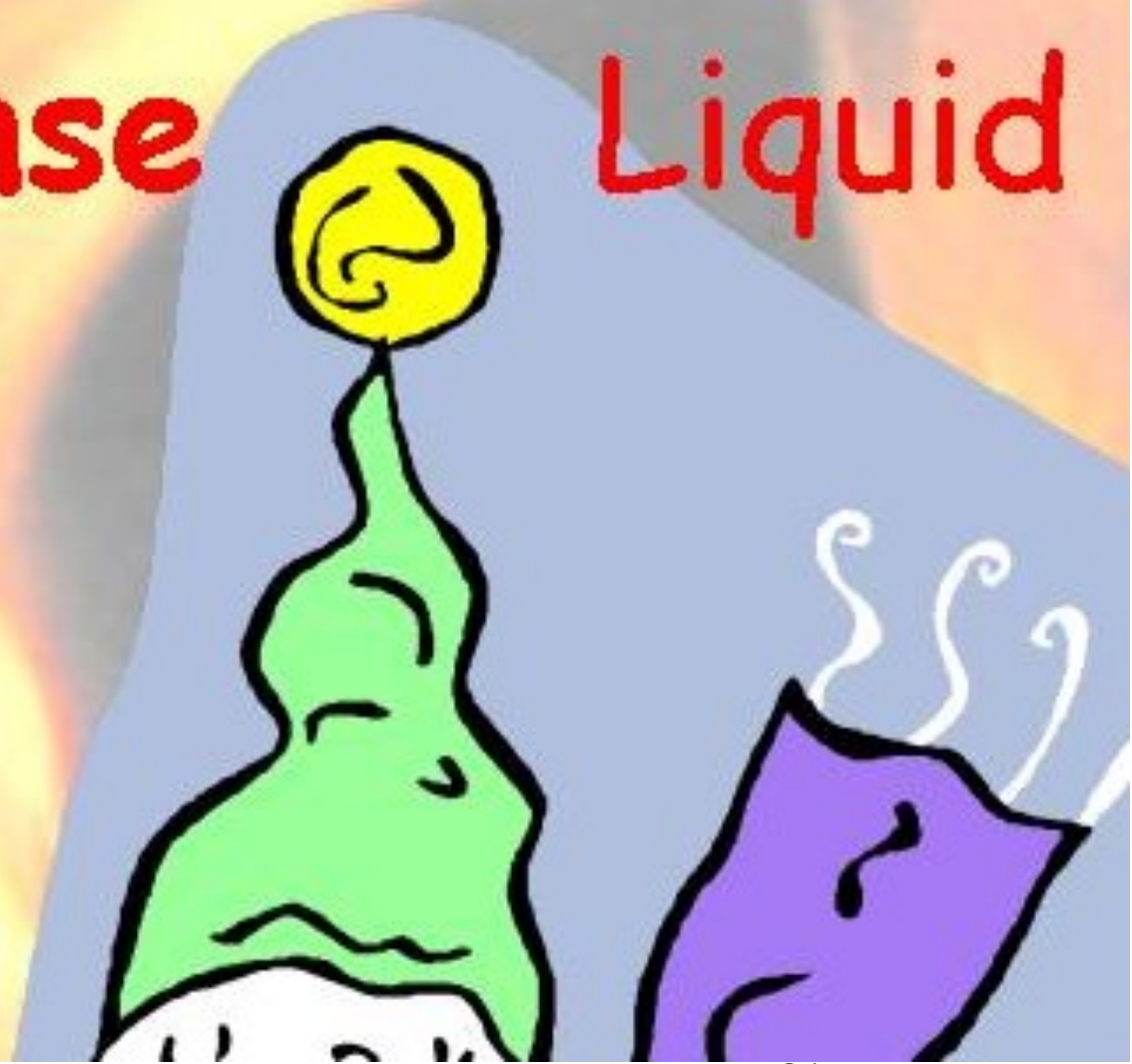
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uid = condense

Liquid

Liquid



of water.

→ Gas = *evaporate*

→ Solid = *freeze*

Vapour





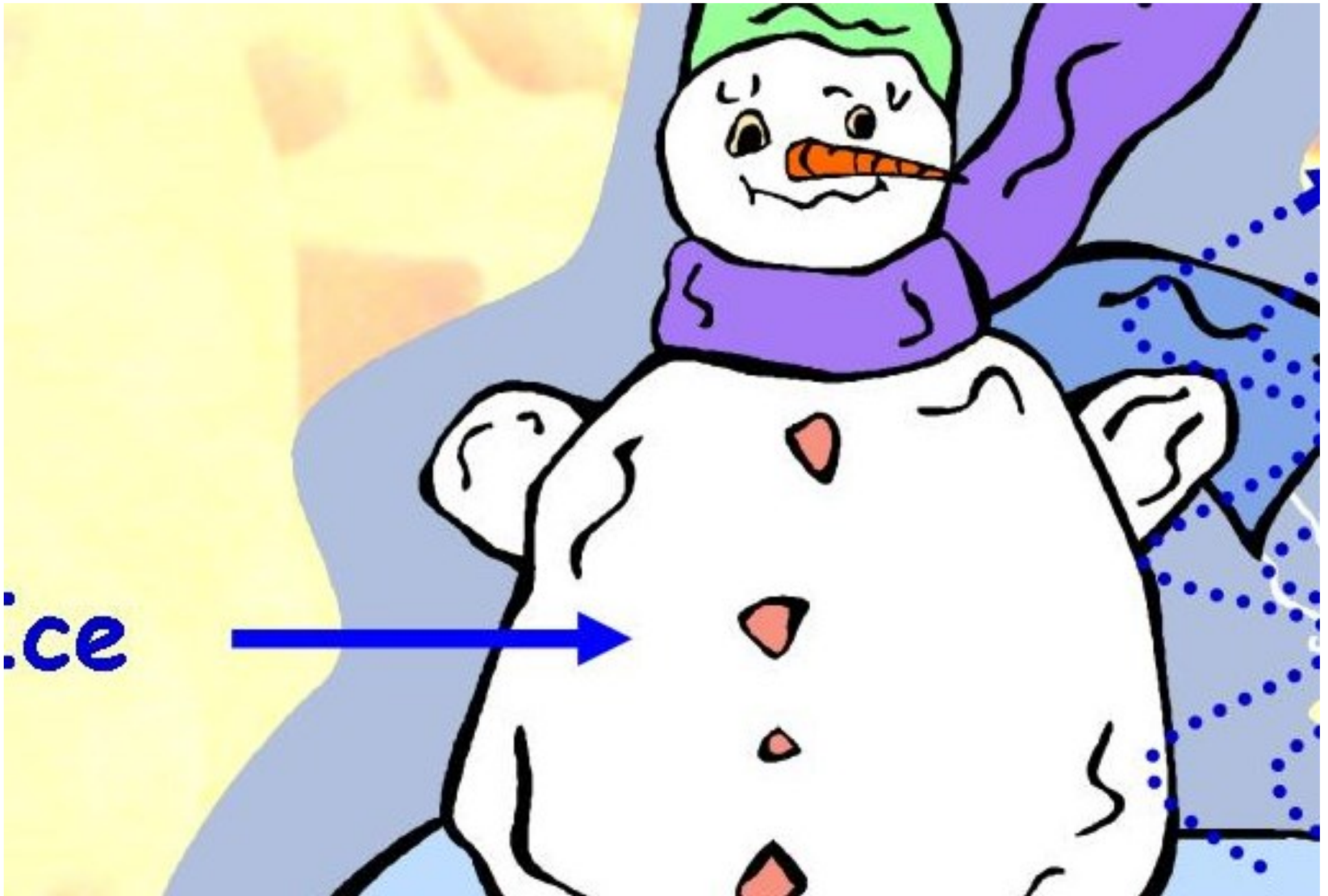
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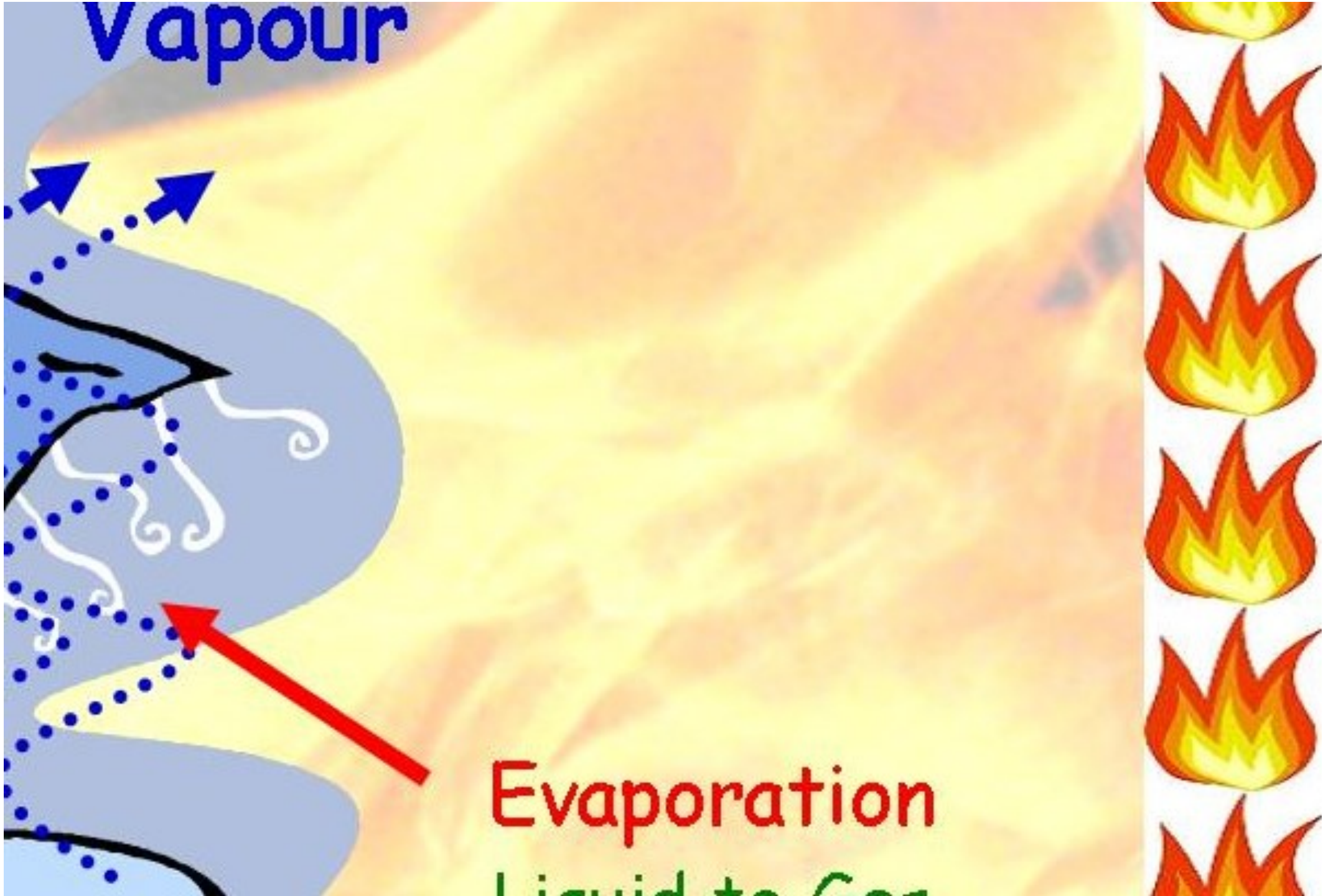
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ice



Vapour



Evaporation

Liquid to Gas

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Water

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Melting  
Solid to  
Liquid



Liquid to Gas  
**Condensation**  
Gas to Liquid

**Freezing**  
Liquid to Solid

