

## UNIT 5: MATTER AND HOW IT CHANGES

**HEAT & TEMPERATURE:** What is heat and what is temperature? How do these two affect matter? A solid changes into a liquid... A liquid changes into a gas... Let's see:

<https://youtu.be/T41npepCEWg>

- **HEAT** is a form of **energy** and makes things **warm**.
- **SOURCES** of heat are those that give off **heat**.
- Examples of sources of heat: **the Sun, the electrical appliances, burning gas and burning wood**.
  
- **TEMPERATURE** is the measure of **how hot something is**, and it's measured in **degrees Celsius (°C)**.
- Things become **hotter** when they **gain heat** and **colder** when they **lose heat**.
  
- Heat can change the state of matter:
  - ◇ Heat can change a solid into a liquid:  
The solid wax turns into liquid when it **gains heat** and it goes back to solid when it **loses heat**.
  - ◇ Heat can change liquid into a gas:  
The liquid turns into gas when it **gains heat** and goes back to liquid when it **loses heat**.

## LIGHT & SHADOWS

What is light? How shadows are formed? Let's see!

<https://youtu.be/uD3XdIWPHXE>

- **LIGHT** is **a form of energy**.
  
- We can see when:
  - an object gives off its **own light**
  - an object **reflects** light into our eyes
  
- Objects that give off light are called **sources of light**.
- These sources can be:
  - ◆ Natural: **the Sun, the stars** and **fire**.
  - ◆ Artificial: **a lamp, a torch** and **a candle**.
  
- How **SHADOWS** are formed?  
A shadow is formed when **an object blocks the light**.
- Size of the shadows:
  - × If we move the light **closer** to the object, the shadow is **bigger**.
  - × If we move the light **further** from the object, the shadow is **smaller**.