

Heat and Our life

Heated material's Change

States

- Hard
- Soft
- Color
- Smell

Volume

- (Liquid)
- (gas)
- (Solid)

Thermal Expansion and Contraction

Heat transfer

Conduction

Heat is transferred from higher temperature to lower temperature through materials. 藉著物質將熱由(高溫)處傳向(低溫)處。

Convection

Liquid and gas transfer heat through convection. 利用對流來傳播熱的形態有(液體)、(氣體)。

Radiation

Heat is transferred from higher temperature to lower temperature without materials. 不用倚靠(物質)就可以傳播熱，但還是由高溫傳向低溫。

The heated part of air and water will start to move upward and the colder part will move downward, causing a cycle. 空氣和水等會流動的物質，會由(受熱)的部分開始向上運動，同時引起較(冷)的部分(向下)運動，造成循環。

Buildings in hot

Ventilation

Convection, Radiation (Dissipation) 對流、散熱。

Transparent

Radiation is inevitable because heat enters as long as light enters. 無法阻擋(輻射熱)，因為(光)進入屋內，(熱)就進入屋內。

Keep the sun out and Insulation

Different designs for sunshade 各種(遮陽)設計