

# GCSE SCIENCE FOUNDATION C2F REVISION CHEMISTRY OF THE ATMOSPHERE

## EVOLUTION OF THE ATMOSPHERE



**EARLY  
ATMOSPHERE**



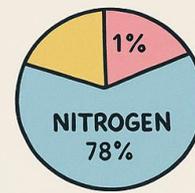
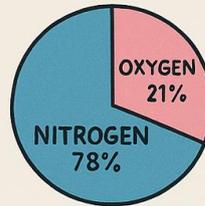
**PLANTS  
EVOLVE**



**OXYGEN  
INCREASES**

The early atmosphere consisted mainly of carbon dioxide. As plants evolved, the level of oxygen gradually increased

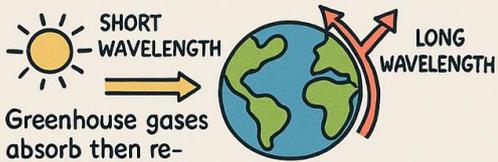
## COMPOSITION OF THE ATMOSPHERE



Greenhouse gases absorb then re-radiate thermal radiation.

e.g. CARBON DIOXIDE, ARGON, WATER VAPOUR

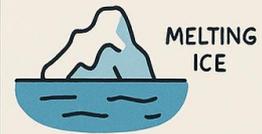
## GREENHOUSE EFFECT



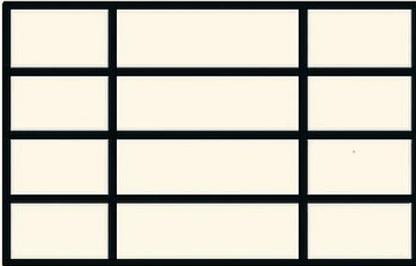
## CAUSES



## EFFECTS



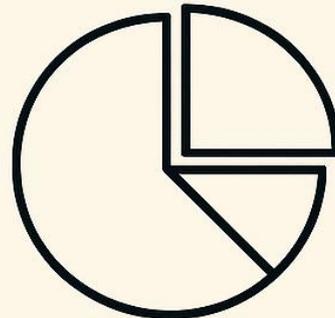
# DATA HANDLING



## TABLE

Organises data in columns and rows

- Presents data clearly for comprehension
- Uses columns for variable headings



## CHART

Displays categories of data visually

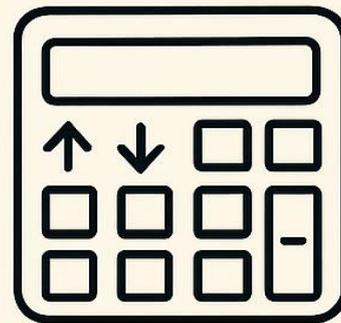
- Uses pie charts to show proportions
- Uses bar charts to compare amounts



## GRAPH

Plots data points along axes

- Shows patterns or trends in data
- Uses lines of best fit where suitable



## CALCULATE

Finds averages from data

- Calculates mean correctly
- Uses the formula:

$$\text{Mean} = \frac{\text{Sum of values}}{\text{Number of values}}$$

# GCSE SCIENCE FOUNDATION B2F REVISION POSTER

## HOMEOSTASIS



### DIABETES

- Blood glucose must be kept within a narrow range.
- Insulin lowers blood glucose: glucagon raises it.
- Type 1: pancreas makes little/no insulin (often linked to lifestyle).



### DIET

- A balanced diet helps maintain stable blood glucose and body mass.
- High sugar intake can cause blood glucose spikes.
- Lack of nutrients affects overall health and body regulation systems.



### OBESITY

- Increases the risk of Type 2 diabetes
- Can affect temperature control and strain organ systems.
- Caused by long-term energy imbalance (energy in > energy out)



### AGE

- ### AGE
- Body regulation becomes less efficient with age.
  - Responses such as sweating, vasodilation, and insulin release may slow.



### GENETICS

Some people inherit risks for obesity or dia-

# GCSE SCIENCE FOUNDATION B2F

# ECOLOGY

## CLASSIFICATION



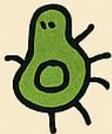
**Animals:**  
multicellular  
and heterotrophic



**Plants:**  
multicellular  
and autotrophic



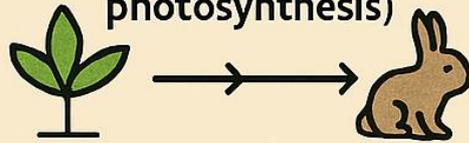
**Fungi**  
unicellular  
microscopic



**Prokaryotes:**  
unicellular  
microscopic

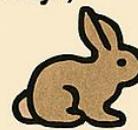
## FOOD CHAINS

makes its own food (e.g. photosynthesis)



**Producer**  
makes its  
own food  
(e.g. photosynthesis)

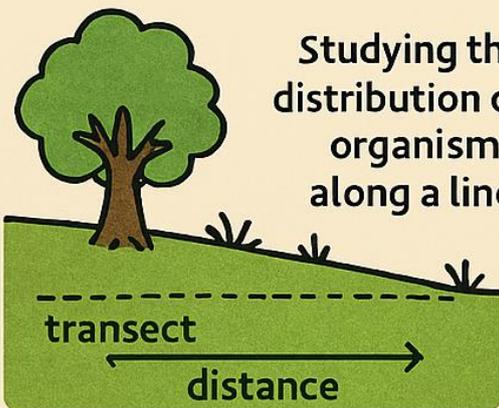
**secondary  
consumer**  
eats producer



rabbit

↓  
**secondary  
consumer**  
eats

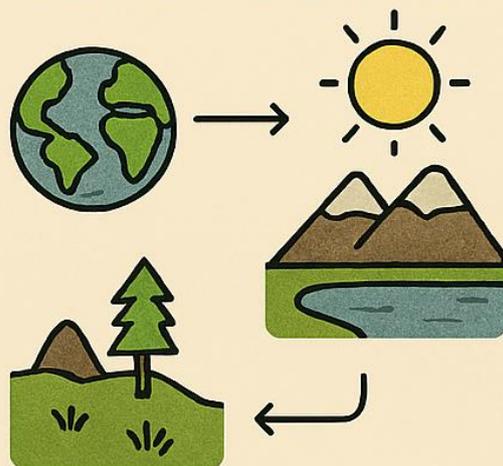
## TRANSECT INTERPRETATION



Studying the  
distribution of  
organisms  
along a line.

Studying the distribution  
of organisms along a line.

## CLIMATE LINKS



Different temperatures,  
rainfall, etc. are associated  
with different ecosystems

## ECOLOGY

# GCSE SCIENCE FOUNDATION B2F

## INHERITANCE / VARIATION / EVOLUTION

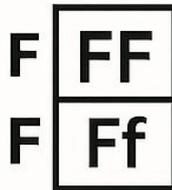
**SEXUAL  
REPRODUCTION**



Mixing of  
genetic  
information

F

**GENOTYPE  
PUNNETT  
SQUARE**



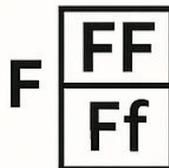
The alleles  
present

**EMBRYO  
SCREENING**

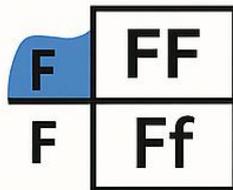


Shows the  
possible  
combinations  
of alleles

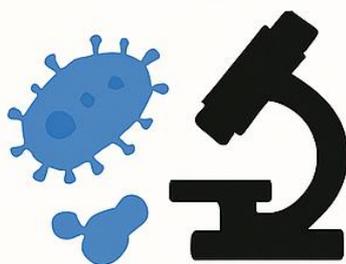
**ANTIBIOTIC  
RESISTANCE**



Shows the  
possible  
combinations  
of alleles



A mutation  
causes some  
bacteria to survive  
antibiotics



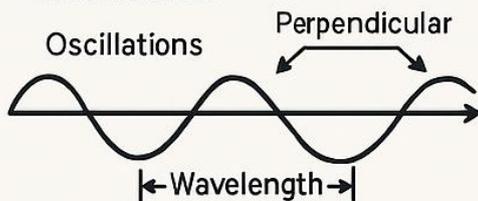
**CUIGULAND-PRACTICAL SUPRENTAICH**

# GCSE SCIENCE FOUNDATION

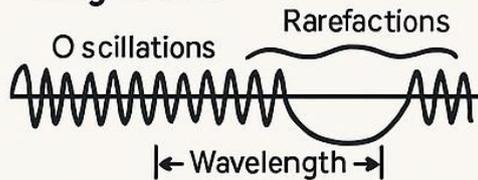
# WAVES / EM

## TYPES OF WAVES

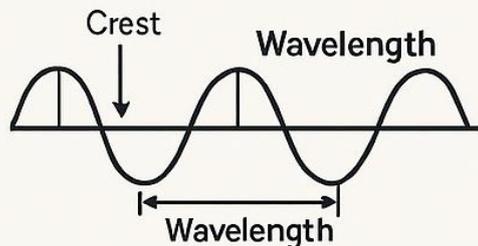
### Transverse



### Longitudinal



## WAVE PROPERTIES



**Amplitude:** maximum displacement from rest position

**Wavelength:** distance to the next corresponding point on a wave

**Frequency:** how many waves pass a point each second

## ELECTROMAGNETIC SPECTRUM

increasing frequency >

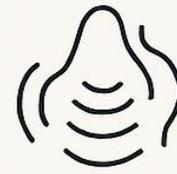
Radio Waves						
Micro waves	In-fred	Visible Light	Ultra-violet	Gamma Rays		

< increasing wavelength

## PROPERTIES AND USES



Radio Waves



Infrared



Visible Light



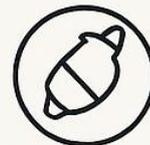
X-Ray

## PROPERTIES AND USES

Radio Waves

Infrared

Visible Light



# FUELS AND GENERATING ELECTRICITY

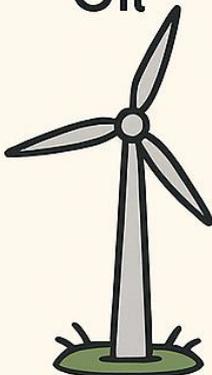
## Energy Sources



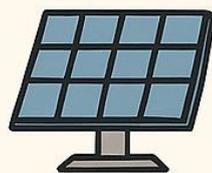
Oil



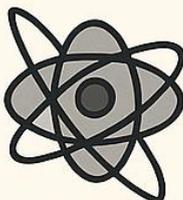
Coal



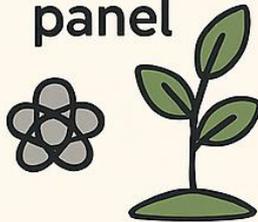
Wind turbine



Solar panel

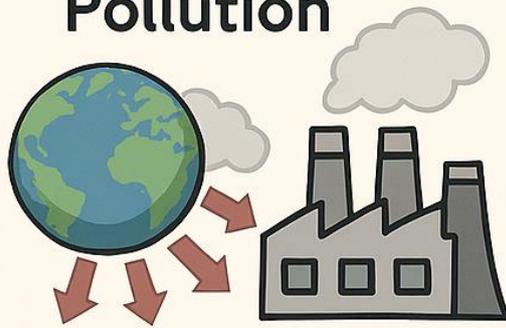


Biofuels

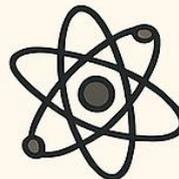


Biofuels

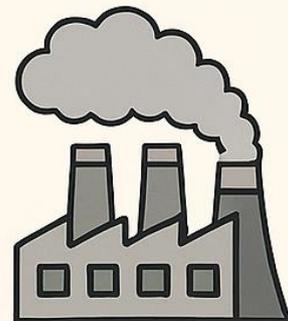
## Pollution



Greenhouse effect



Nuclear



Carbon dioxide



Biofuels



Sulfur dioxide

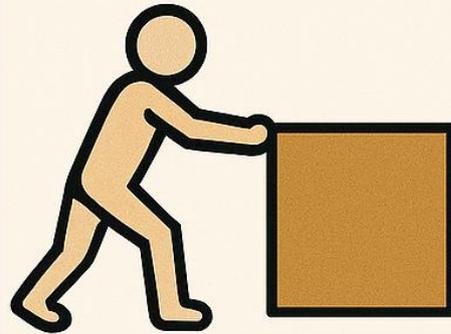
**GCSE  
P2F**

**SCIENCE  
FOUNDATION  
FORCES**

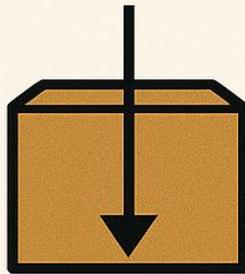
**NON-CONTACT  
FORCE**



**CONTACT  
FORCE**

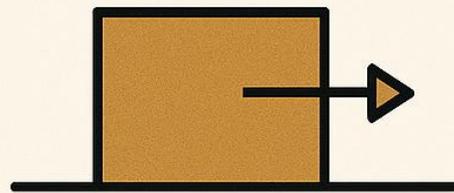


**WEIGHT**

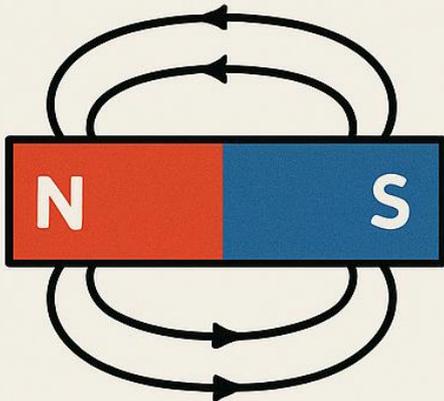


**WEIGHT**

**FRICTION**



# MAGNETISM



BAR MAGNET

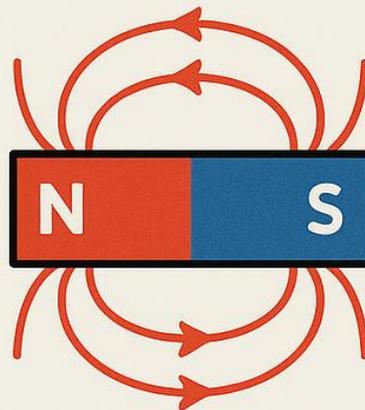
## MAGNETIC MATERIALS

- IRON
- STEEL
- COBALT & NICKEL

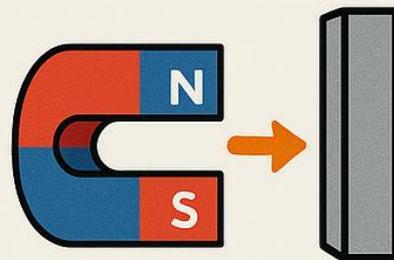
## POLARITY



## INDUCED MAGNET



## MAGNETIC FIELD



INDUCED MAGNET