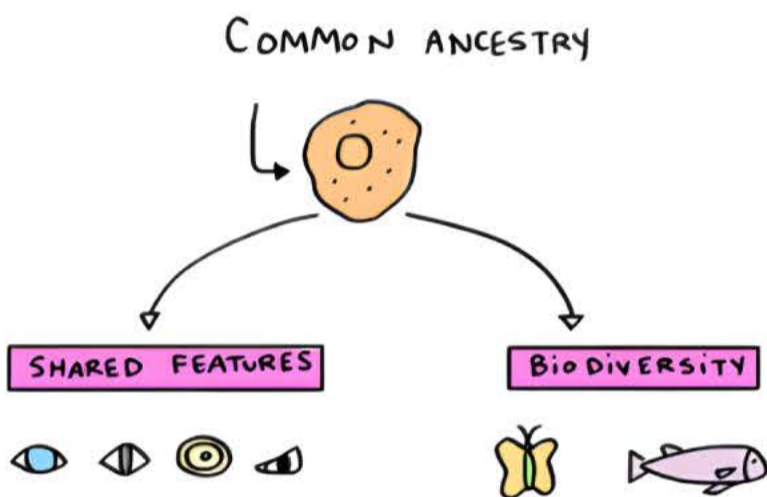


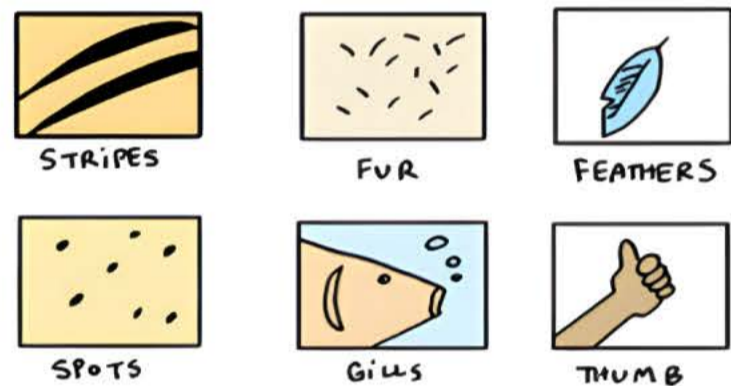


THEME A: UNITY AND DIVERSITY



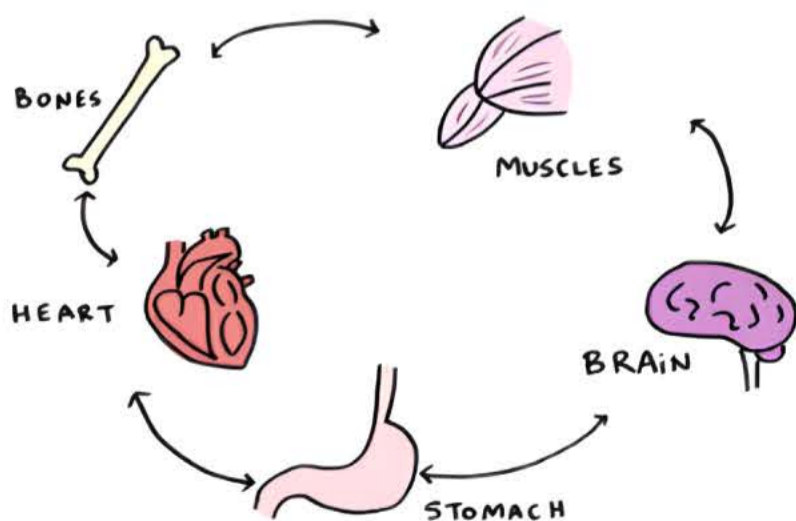
COMMON ANCESTRY HAS GIVEN LIVING ORGANISMS MANY SHARED FEATURES WHILE EVOLUTION HAS RESULTED IN THE RICH BIODIVERSITY OF LIFE ON EARTH.

THEME B: FORM AND FUNCTION



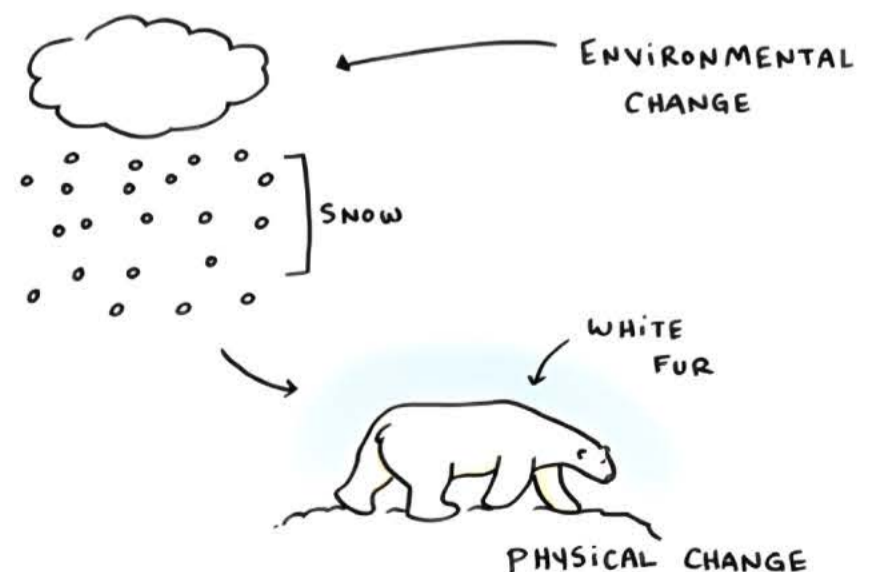
ADAPTATIONS ARE FORMS THAT CORRESPOND TO FUNCTION. THESE ADAPTATIONS PERSIST FROM GENERATION TO GENERATION BECAUSE THEY INCREASE THE CHANCES OF SURVIVAL.

THEME C: INTERACTION AND INTERDEPENDENCE



SYSTEMS ARE BASED ON INTERACTIONS, INTERDEPENDENCE, AND INTEGRATION OF COMPONENTS. SYSTEMS RESULT IN EMERGENCE OF NEW PROPERTIES AT EACH LEVEL OF BIOLOGICAL ORGANIZATION.

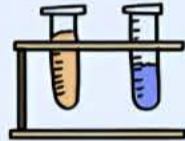
THEME D: CONTINUITY AND CHANGE



LIVING THINGS HAVE MECHANISMS FOR MAINTAINING EQUILIBRIUM AND FOR BRINGING ABOUT TRANSFORMATION. ENVIRONMENTAL CHANGE IS A DRIVER OF EVOLUTION BY NATURAL SELECTION.

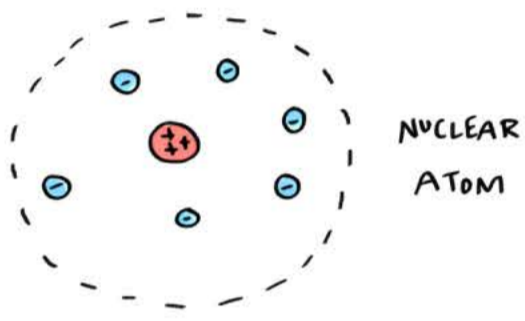
CONCEPTUAL LEARNING IN...

# CHEMISTRY

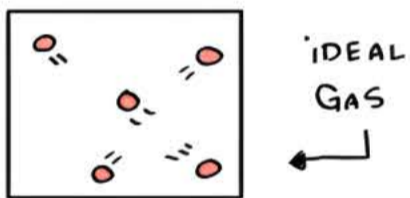


GOODWIN

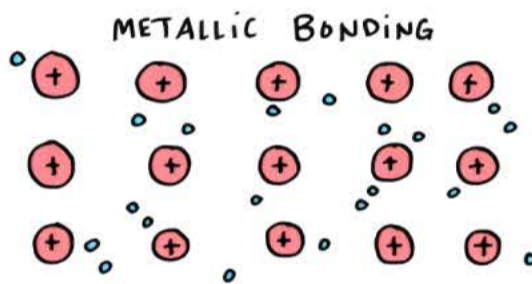
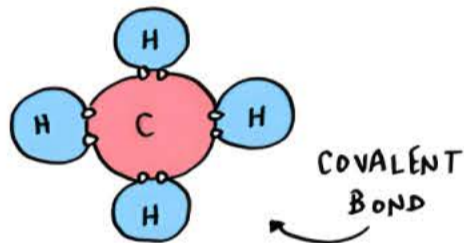
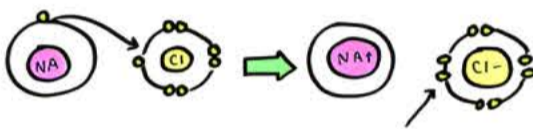
## STRUCTURE



$$\frac{1 \text{ mol C}}{6.022 \times 10^{23} \text{ C atoms}}$$

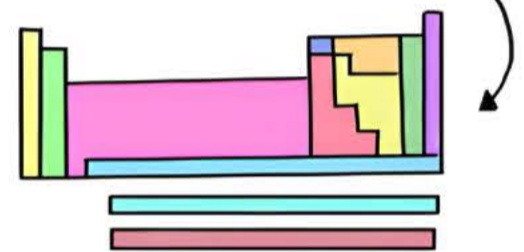


1 MODELS OF THE PARTICULATE NATURE OF MATTER.

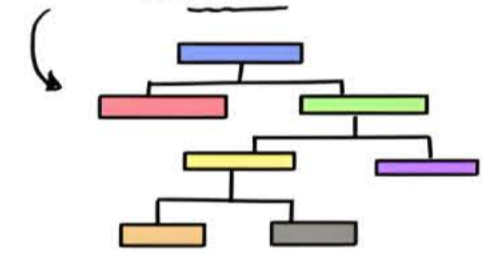


2 MODELS OF BONDING AND STRUCTURE.

## THE PERIODIC TABLE

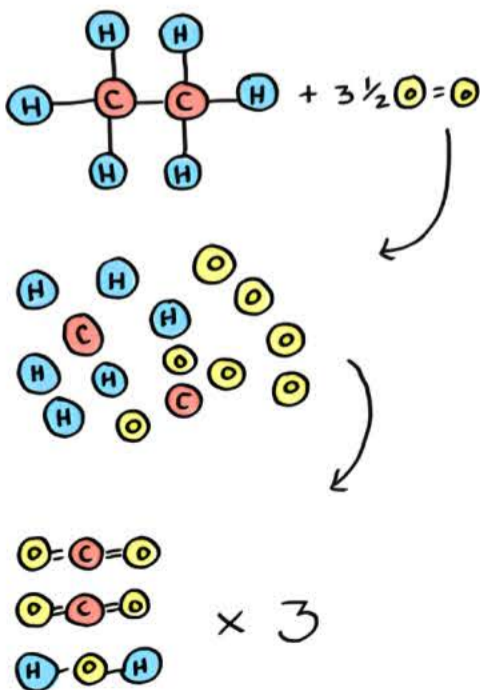


### CLASSIFICATION OF ORGANIC COMPOUNDS

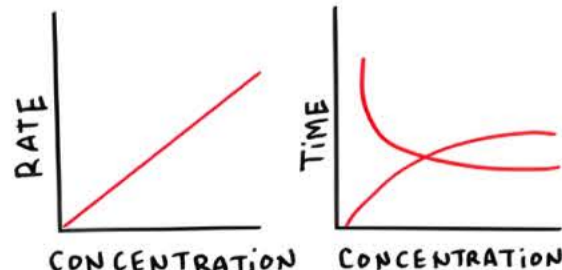
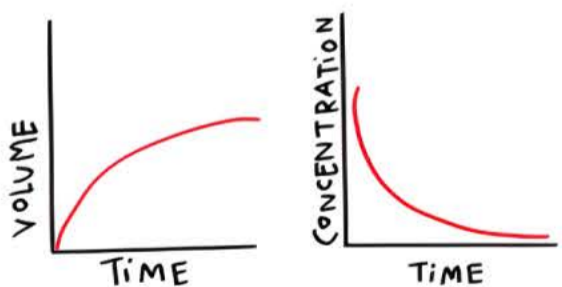


3 CLASSIFICATION OF MATTER.

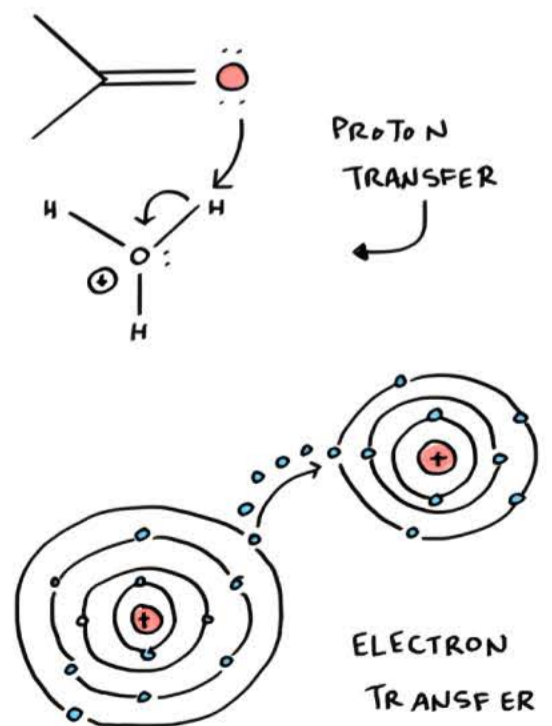
## REACTIVITY



1 WHAT DRIVES CHEMICAL REACTIONS?



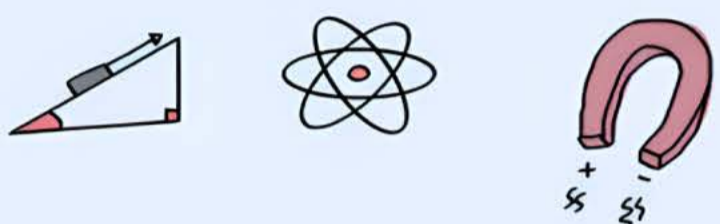
2 HOW MUCH, HOW FAST AND HOW FAR?



3 WHAT ARE THE MECHANISMS OF CHEMICAL CHANGE?


CONCEPTUAL LEARNING IN...

# PHYSICS

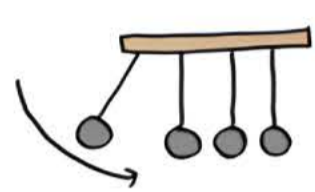


GOODWIN

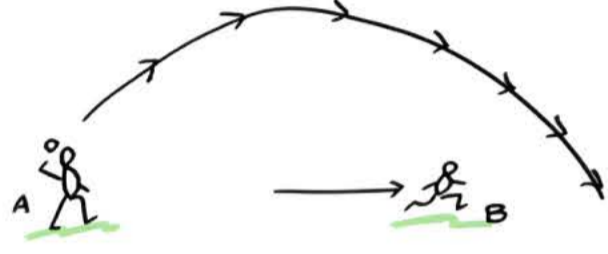
A. SPACE, TIME, AND MOTION



ACCELERATION

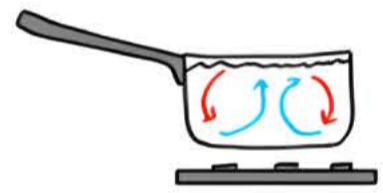


MOMENTUM

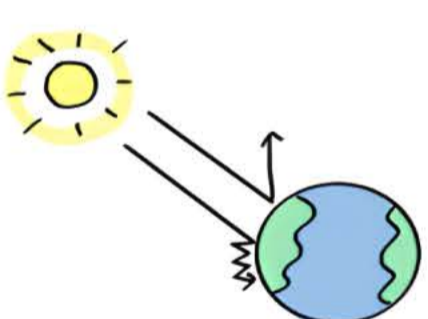


PROJECTILES

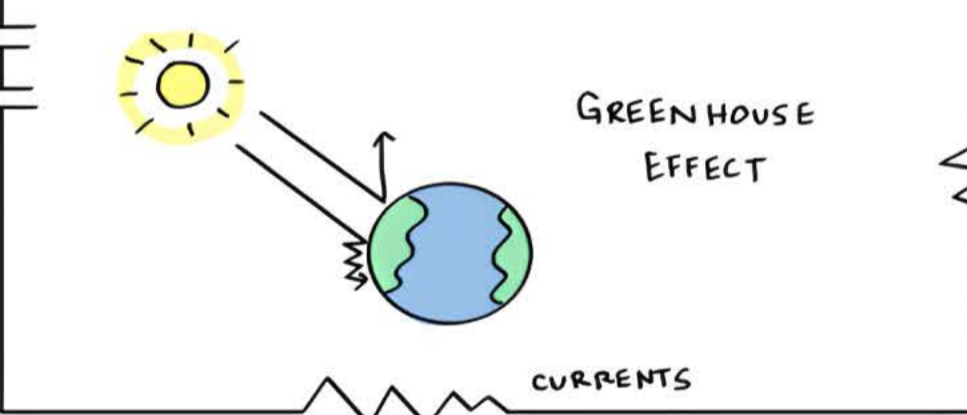
B. THE PARTICULATE NATURE OF MATTER.



HEAT TRANSFER



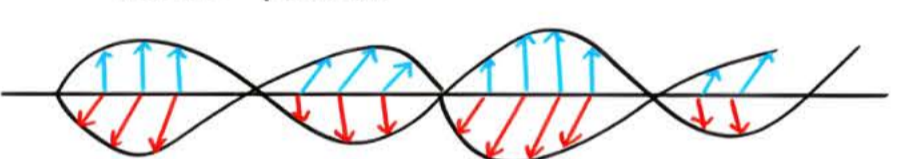
GREENHOUSE EFFECT




CURRENTS

C. WAVE BEHAVIOUR

WAVE MODEL




DOPPLER EFFECT

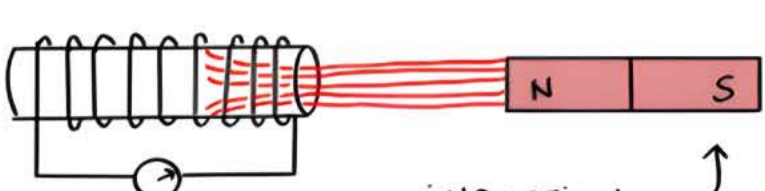


D. FIELDS

GRAVITATIONAL FIELD

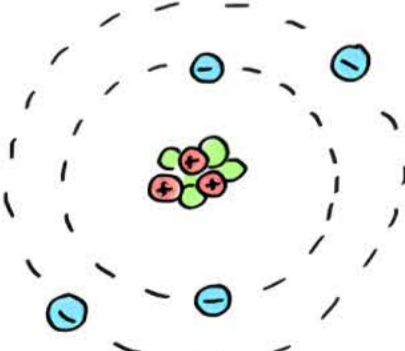


INDUCTION



E. NUCLEAR AND QUANTUM PHYSICS

ATOM STRUCTURE



Fission

