

PHOTOSYNTHESIS (AUTOTROPHIC NUTRITION)

- MEANING:

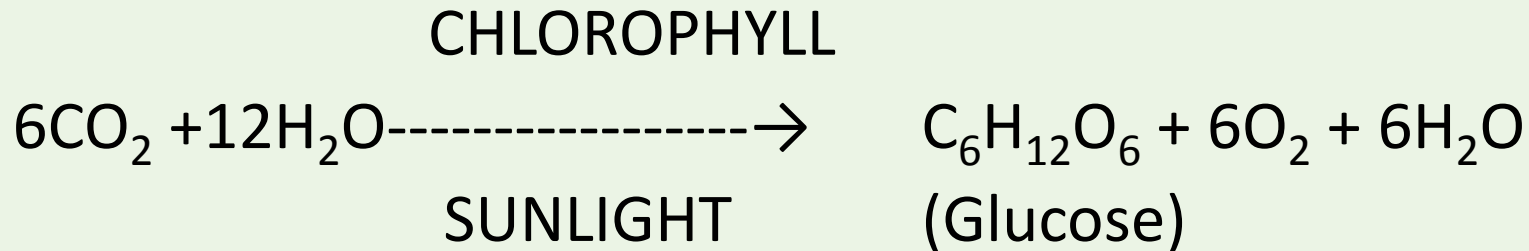
PHOTO-----LIGHT

SYNTHESIS----- MIXING OR COMBINING VARIOUS THINGS TO MAKE SOMETHING

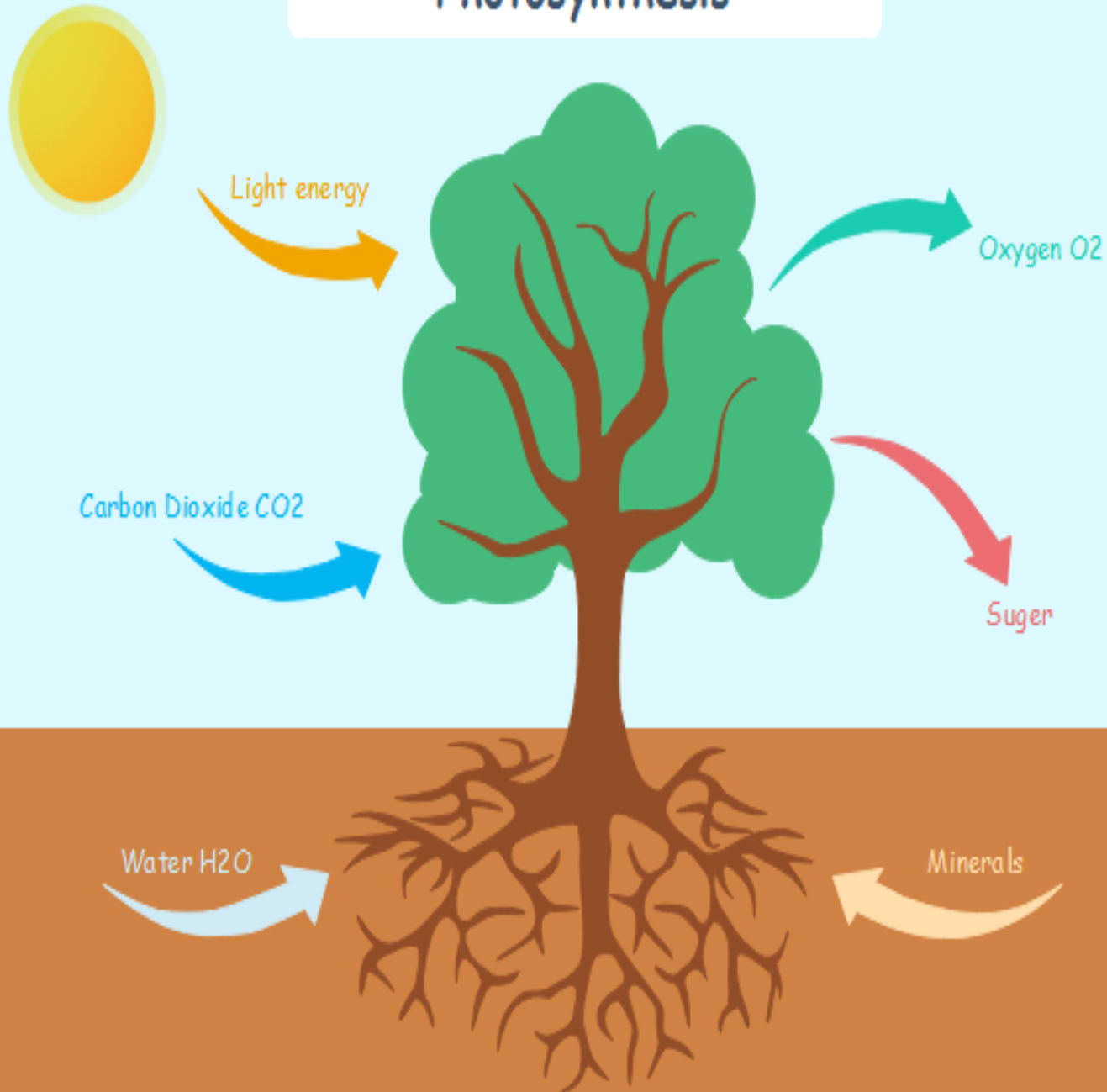
- IN RESPECT OF PLANTS

“PHOTOSYNTHESIS MEANS MAKING FOOD (ORGANIC SUBSTANCE) BY COMBINING CO₂ AND WATER (INORGANIC SUBSTANCES) IN PRESENCE OF LIGHT.”

- FOOD PREPARED BY PLANTS IS INITIALLY GLUCOSE (C₆H₁₂O₆), PROVIDE ENERGY TO PLANTS, AND FINALLY CHANGE INTO STARCH (STORED FOOD).
- PLANTS STORE FOOD IN THE FORM OF STARCH, IN WHICH FORM ANIMALS STORE RESERVE FOOD? ANSWER THIS QUESTION.
- WE CAN DERIVE WHOLE PROCESS BY FOLLOWING EQUATION



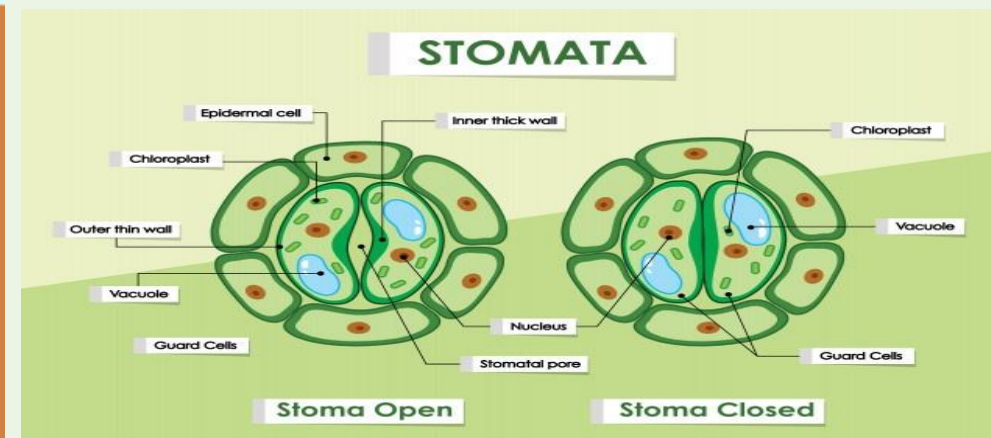
Photosynthesis



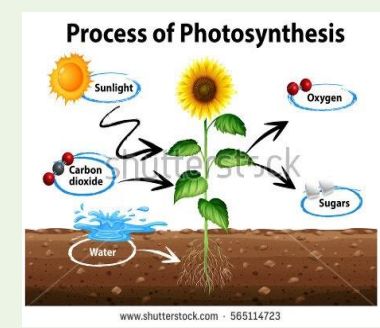
SEE THE PICTURE AND ANSWER THE FOLLOWING

1. FROM WHERE PLANTS GET WATER?
2. WHICH PART OF PLANT RECEIVE SUNLIGHT?
NAME THE PIGMANT ABOSORB LIGHT.
3. HOW CARBON DI OXIDE ENTER IN PLANT?
4. WHAT PRODUCTS FORM IN PHOTOSYNTHESIS?
5. IS PHOTOSYNTHESIS OCCUR IN NIGHT ALSO?
IF NOT WHY?
6. WHICH ORGANELLE OF PLANT CELL
CALLED KITCHEN OF THE CELL?

DRAW THE FOLLOING DIAGRAM IN YOUR NOTEBOOK



PROCESS OF PHOTOSYNTHESIS



- LETS UNDERSTAND THE PROCESS:
 - ABSORPTION OF LIGHT (RADIANT ENERGY) BY CHLOROPHYLL.
 - CONVERSION OF RADIANT ENERGY INTO CHEMICAL ENERGY WHICH STORE IN ATP.
 - SPLITTING OF WATER INTO HYDROGEN AND OXYGEN.
 - THIS HYDROGEN REDUCE CO₂ (REDUCTION OF CARBON DI OXYDE) INTO CARBOHYDRATE (GLUCOSE).