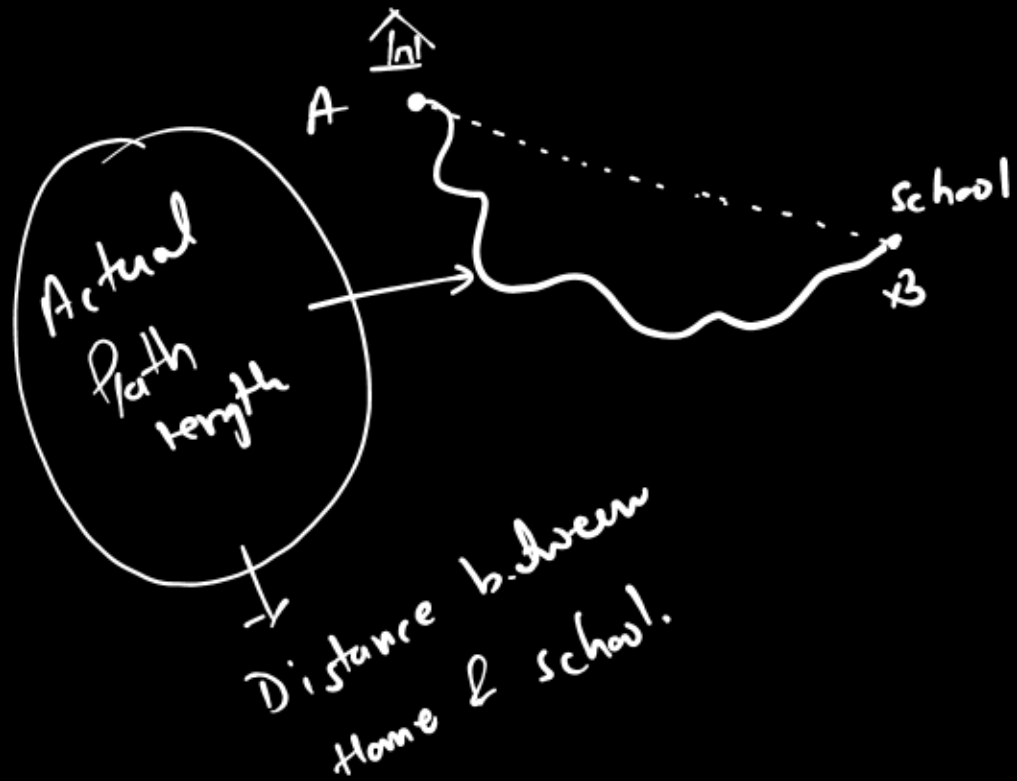


Food and Health

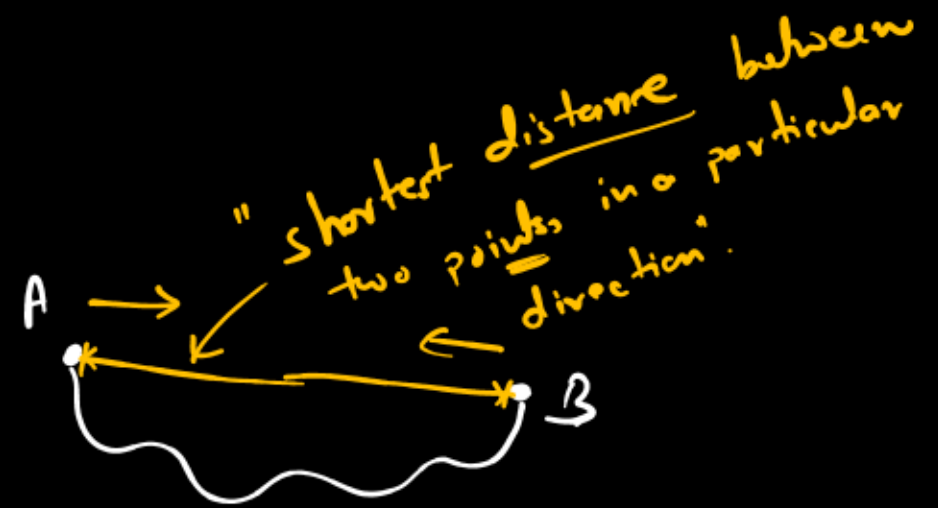
Food and Health

⇒ Food

Distance



Displacement

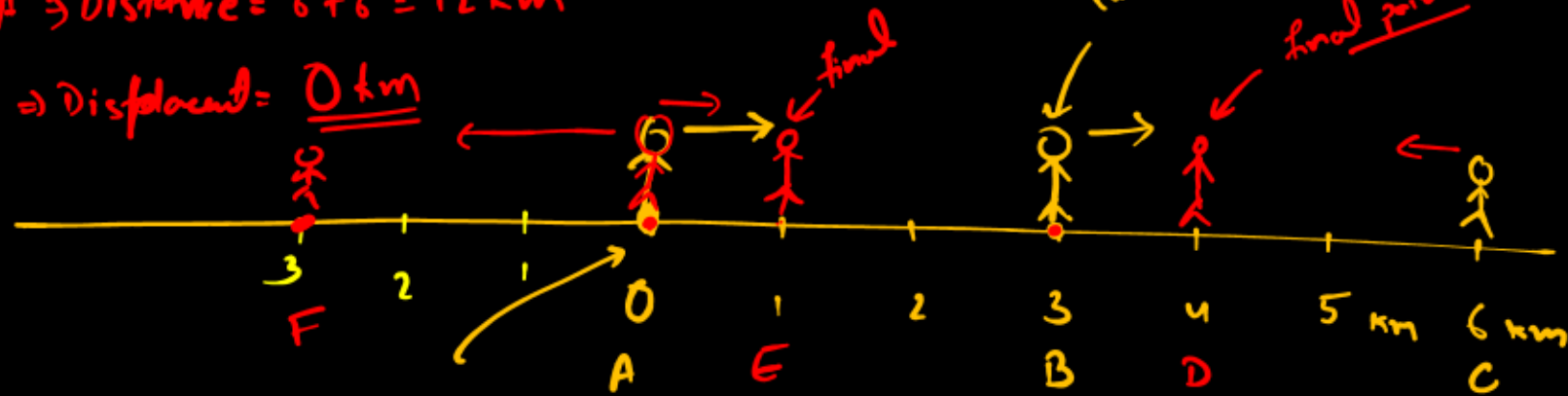


from A to E: Distance = $6+5 = 11$ km

Displacement = 1 km "from A to E"

from A to A $\Rightarrow$ Distance = $6+6 = 12$ km

$\Rightarrow$ Displacement = 0 km



Initial point

Starting point!

from A $\rightarrow$ B

Distance covered = 3 km

Displacement = 3 km from A to B

from A to F $\Rightarrow$

Distance = $12+3 = 15$ km from A $\rightarrow$ C

Displacement = 3 km towards west from A $\rightarrow$ D

Distance = 6 km

Displacement $\rightarrow$ 6 km from A to C

Distance = $\vec{6} + \vec{2} = 8$ km

Displacement = 4 km from A to D

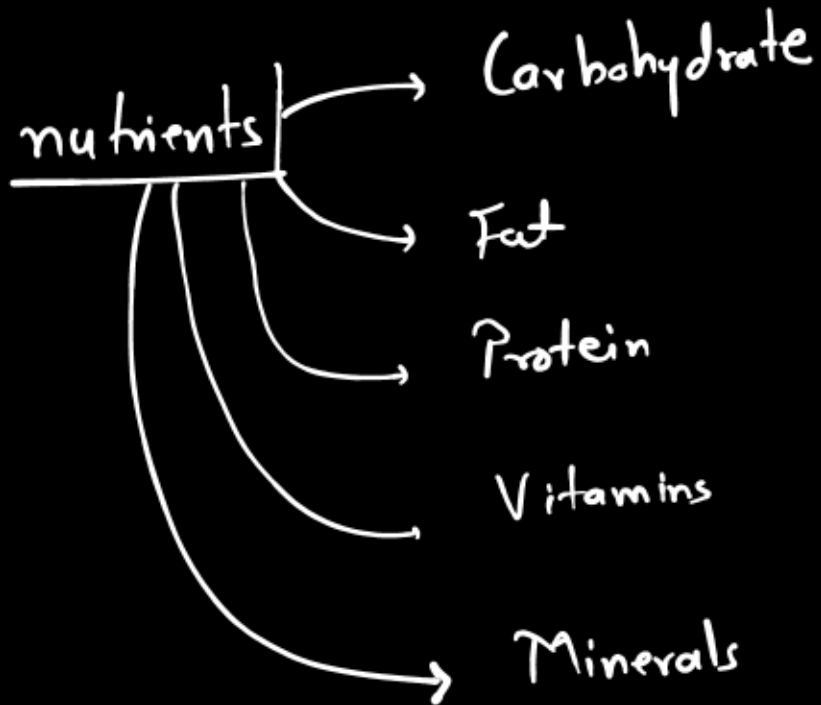
Food

→ It is fuel for our body.

→ It gives us energy, build our body, fight against disease.

⇒ It is essential for our survival.

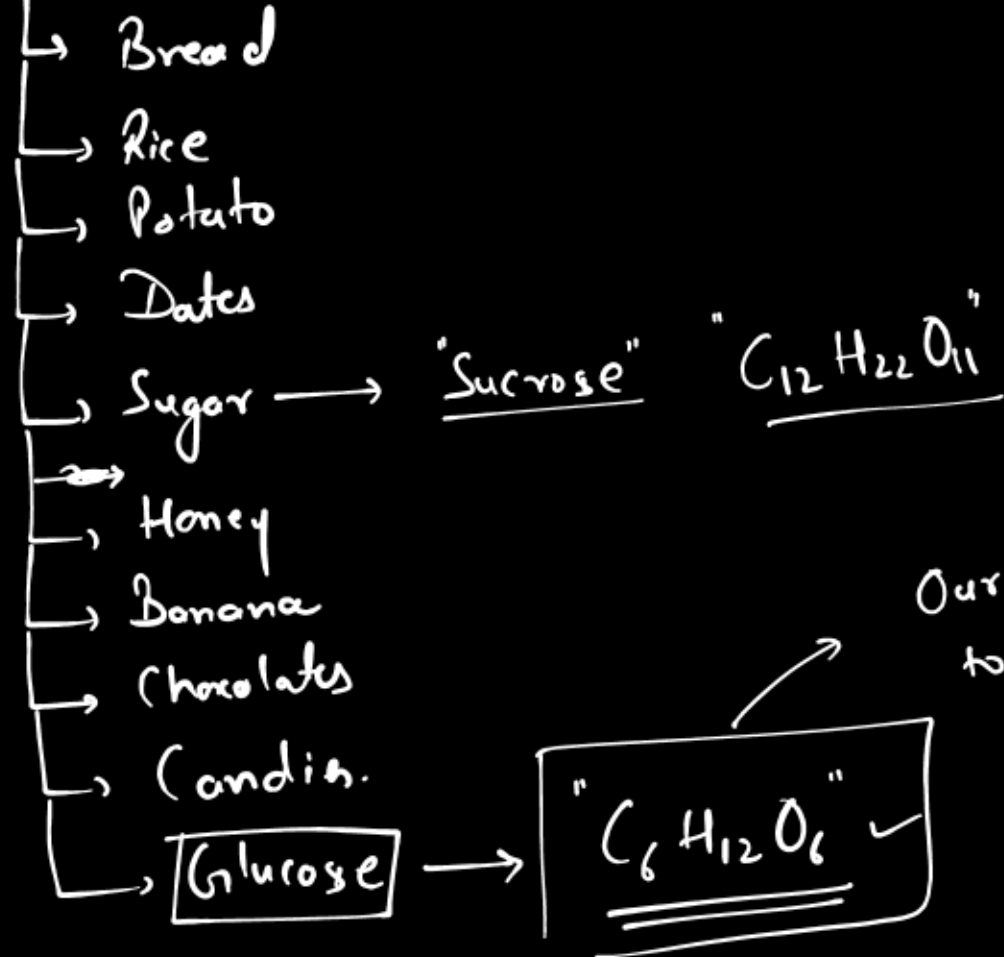
⇒ Food contains



⇒ Along with nutrients food also contains roughage and water.

① Carbohydrates

- It includes starch and sugar
- They give us energy to do work.
- Present in



Our cells use glucose + O_2 to release energy.

→ Our digestive system breaks complex carbohydrates (starch & sugar) into simpler form, glucose ($C_6H_{12}O_6$).

→ Glucose is taken by the cells to produce energy.

② Fats

- ⇒ Fats are also energy giving nutrients.
- ⇒ They produce/give more energy than carbohydrate.
- ⇒ Fats can be stored in our body and body can use it if there is shortage of food.
- ⇒ It help to keep our body warm.
- ⇒ It also helps in growth and development of cells of our body.
- ⇒ Fats are present in : butter, vegetable oil, dry fruits, egg yolk, ghee.
 - ↳ mustard
 - ↳ olive oil
 - ↳ coconut oil.

⇒ Too much of fat ~~can~~ may lead to overweight or obesity.
Obesity may further lead to diseases like, heart disease,
diabetes, etc.

Good Fat

- ⇒ They are required by our body
- ⇒ It has many functions in our body like:
 - (i) development of new cells
 - (ii) keeping our body warm
 - (iii) making important chemicals in our body.
 - (iv) providing energy
- ⇒ Excess of good fats is ~~not~~ stored in the cells and acts as energy reserve (do not remain in blood)
- ⇒ They don't get deposited in blood vessel.

Bad fat

- ⇒ Not required by our body.
- ⇒ They have no role to play in our body.
- ⇒ They remain in blood.
- ⇒ They get deposited in blood vessels and over time they may block the blood vessel.

<u>Examples:</u> Olive oil, mustard oil, ghee, nuts, chia seeds, flax seeds.	<u>Examples:</u> <u>Fried food</u> , palm oil, burger, pizza, cake, etc.
--	--

Proteins

- Proteins are body building nutrients.
- They help in building muscles and new cells of the body.
- they help in repairing worn-out tissues.
- Present in: egg white, milk, fish, cheese, pulses, soybean, meat.

Macro-nutrients

← Carbohydrates
Fats
Proteins

} we need them in large amounts.

Vitamins

- They keep us healthy.
 - fight the disease causing germs.
- They are present in fresh fruits and vegetables.
- They are needed in smaller amounts for normal functioning of our body.

Vitamin	Sources	Deficiency disorders
Vitamin <u>A</u>	Carrot, papaya, mango, egg yolk, green leafy vegetables, milk, fish.	<u>Night-blindness</u> (difficulty seeing in dim light)
Vitamin B ₁	Green leafy veg. milk, meat, cereals, peas.	Beri beri [Affects nervous system, causing numbness of feet and hand]
Vitamin C	Citrus fruits, tomato, green- leafy veg.	Scurvy (Bleeding gums, swollen joints)
Vitamin D	Fish, eggs, mushroom, exposure to sunlight our body makes vit. D.	Rickets (In children, bones become soft and don't grow well) (Bowed shaped leg)

Minerals

- They are also required in small amounts.
- help keeping our body healthy.
- Important minerals :
 - Iron
 - Calcium
 - iodine
 - phosphorous

Mineral	Sources	Deficiency disorders
① Iron	Apple, banana, dates, green-leafy vegetables, jaggery, meat	Anaemia ↓ Blood → <u>RBC</u> → <u>Haemoglobin</u>, ↓ • Haemoglobin level decreases in blood. • Person looks pale and gets tired easily. • made up of iron • it carry oxygen. • Blood is red due to haemoglobin.
② Iodine	<u>Iodized salt</u> , <u>sea food</u> .	

