

Where in the cell does photosynthesis take place?

 Chloroplast

What process allows organisms to release energy from sugar without oxygen?

Anaerobic Respiration

Put in grade for study guide


What are the 2 parts of photosynthesis and what is produced in each?

Light Reactions- O₂
Calvin Cycle- Sugar



How is energy transformed in photosynthesis?

Light energy to chemical (sugar)



Cellular respiration converts energy in sugar into what molecule?

Sugar to ATP
aerobic = 36 ATP
anaerobic = 2 ATP

What parts of a plant transport water and sugar?

Xylem= water
Phloem= sugar

Fill in on Tuesday's warm up

What organism converts nitrogen gas into a form that is usable by plants?

Bacteria



Transpiration is an important part of what cycle?

Water



Get out or make these flashcards

(will need 5 white cards, 2 yellow, 4 blue, 1 green, 2 red)

Sugar

Oxygen

**Sun
Energy**

**ATP
Energy**

Water

**Carbon
Dioxide**

Chloroplast

Plants and some protists →

Mitochondria

Animals, Plants, Fungus, Protists →

Flash cards- Back

C₆H₁₂O₆

O₂

light energy

**chemical
Energy**

H₂O

CO₂

Photosynthesis
→

**aerobic cellular
respiration**
→

Decomposition

Consumption

Biosynthesis

Alcohol

**Lactic
Acid**

**anaerobic cellular
respiration
(fermentation)**

Use the flash cards to lay out the formula for photosynthesis

Hold up the reactants of photosynthesis

Hold up the products of photosynthesis

Hold up the energy source of photosynthesis

Hold up the organic molecule made in photosynthesis

Hold up the gas that is made when plants are in the light

Hold up the card that enters the plant through the roots.

Hold up the cards that exit the plant through the stomata.

Review the photosynthesis dance:

Hold up the reactant of the Light reactions.

Hold up the product of the light reactions.

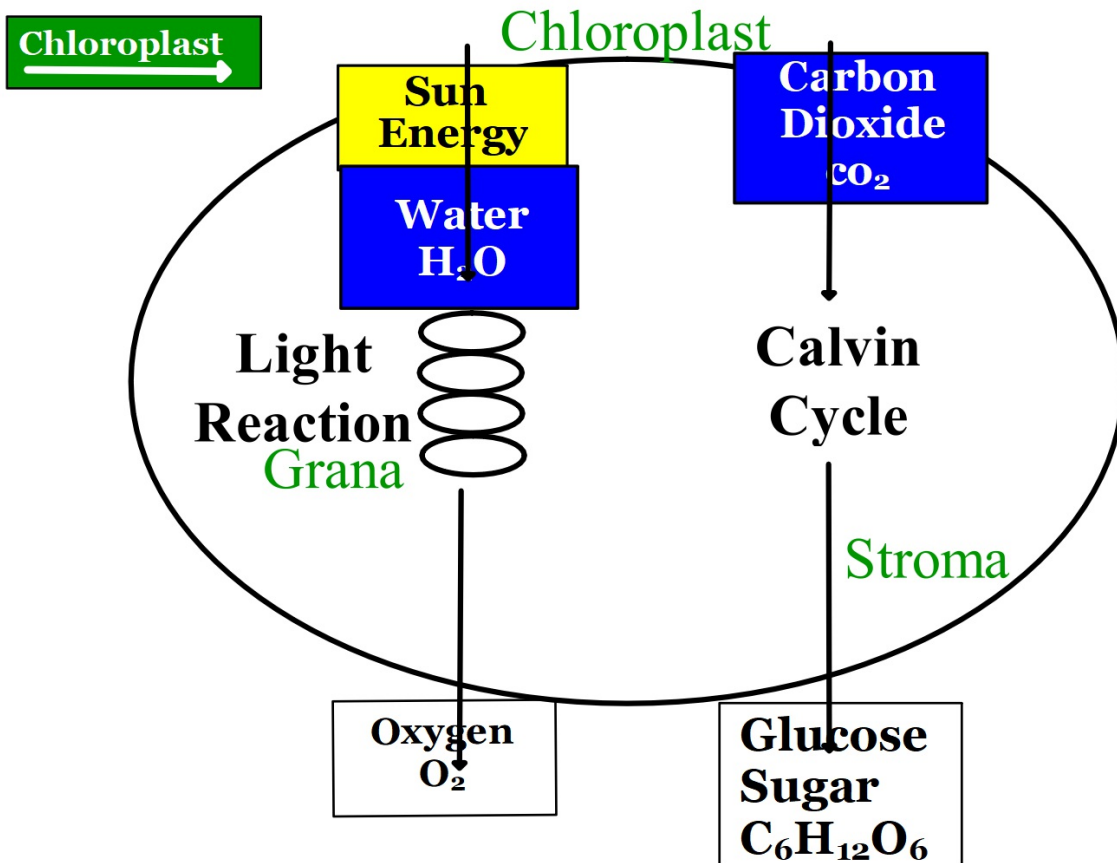
Hold up the reactant of the Calvin cycle

Hold up the product of the calvin cycle.

Hold up the card that lists where photosynthesis takes place.

Hold up the inorganic molecules in photosynthesis.

Arrange your cards on your desk into the correct spots



Use your flashcards to lay out the formula for cellular respiration.

Hold up the reactants of cellular respiration

Hold up the products of cellular respiration

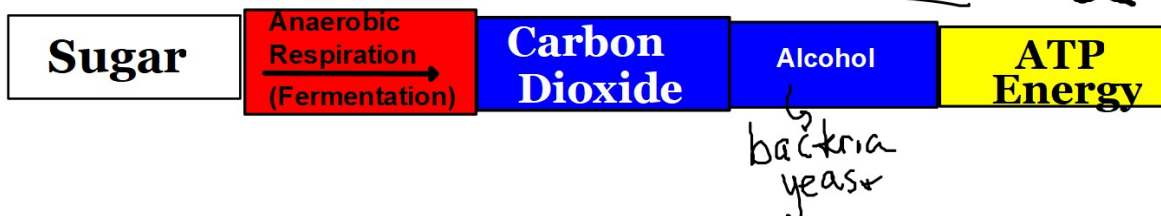
Where does cellular respiration take place

Hold up the card that contains energy at the beginning of the reaction.

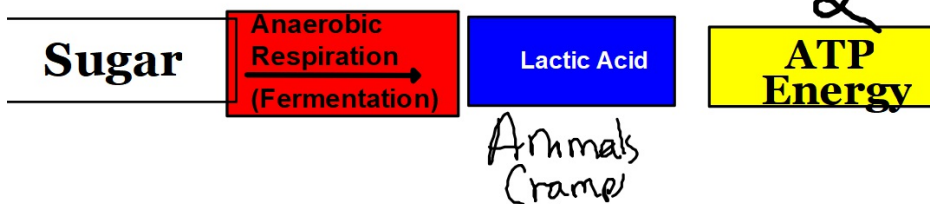
Hold up the card that is immediate energy for cells.

Anaerobic Cellular Respiration

Alcoholic Fermentation 2



Lactic Acid Fermentation



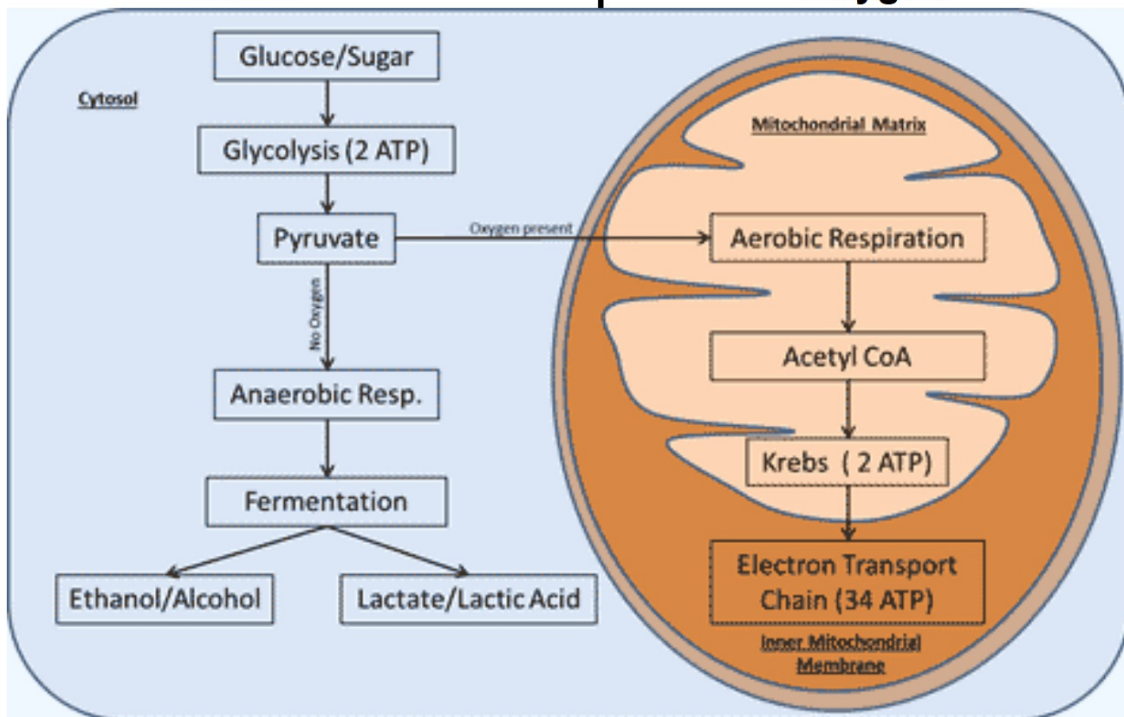
Aerobic Cellular Respiration



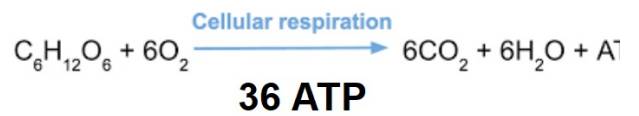
36

Anaerobic Cellular Respiration
No Oxygen

Aerobic Cellular Respiration
Oxygen



2 ATP



Hold up the card that is a reactant in aerobic cellular respiration but is NOT a reactant in anaerobic cellular respiration.

**Which process produces more ATP?
Aerobic or Anerobic?**

Hold up the reactant of glycolysis.

Review the cellular respiration dance!!

Lay out all of your flash cards:

Hold up the card that is the gas given off by plants in the dark.

Hold up the card that is the gas given off by plants in the light

Hold up the process where plants and animals make bigger molecules from smaller molecules

Hold up the process in the carbon and nitrogen cycle where matter is recycled

Hold up the process that removes carbon from the atmosphere

Hold up the process that adds carbon to the atmosphere

Hold up the process that moves carbon from plants to animals

Hold up the process done by producers/autotrophs to create an organic molecule from inorganic molecules using light energy.

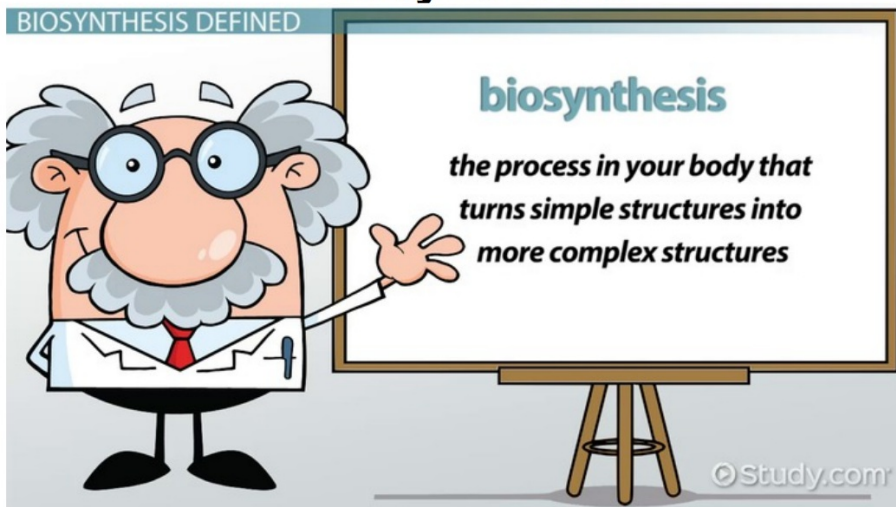
Hold up the product made by animals to when they release energy from sugar without using oxygen.

Hold up the product made by yeast to release energy when they release energy from sugar without using oxygen.

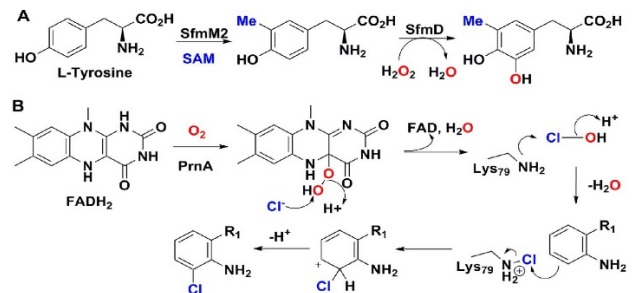
Which process can release energy from sugar without oxygen?

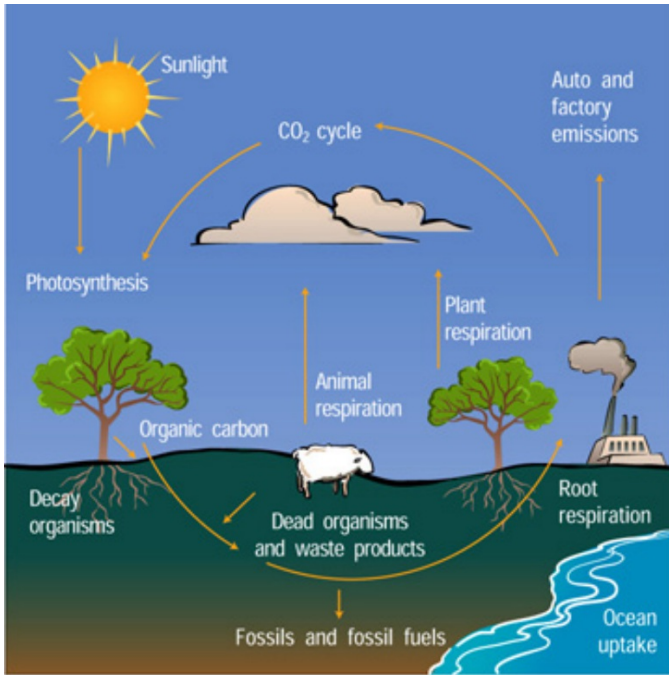
Which process makes the most ATP?

Biosynthesis

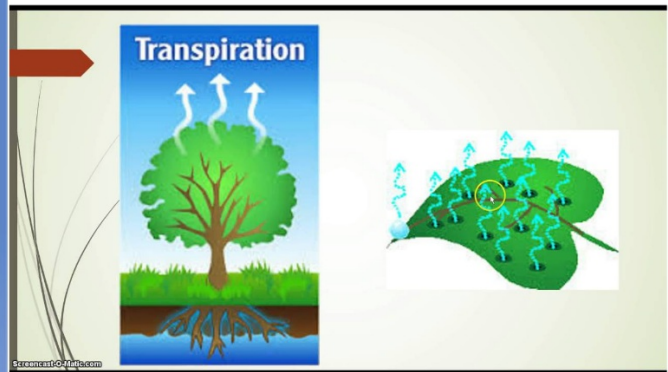


All living things use sugar and other atoms they take in to build up other molecules (proteins, carbohydrates, lipids, and nucleic acids)



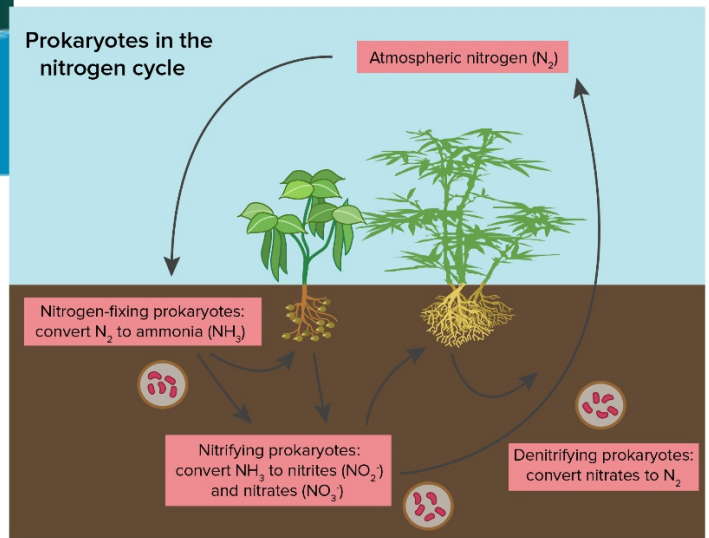


Carbon Cycle



Transpiration...water cycle

Nitrogen Cycle...BACTERIA



Kahoot

(on weebly)