

Bangladesh International School, English Section Riyadh

BIOLOGY

Grade –6

Chp -1 Cells and Life Processes

Lesson-5 Specialized Cells

Q1. What are specialized cells?

Many cells look different, this is because they have their own special jobs to do. During their development these cells have changed their shape and structure. Different cells do different jobs according to their shape and structure. They share the work of the whole organism and are called specialized cells.

Q2. What are cilia cells?

Ans. The cilia are fine hair like structures produced by the cytoplasm. They beat in a rhythm to move the mucus and anything in it along the surface. Bacteria are removed from the lungs and ovum is moved down the oviduct by these ciliated cells.

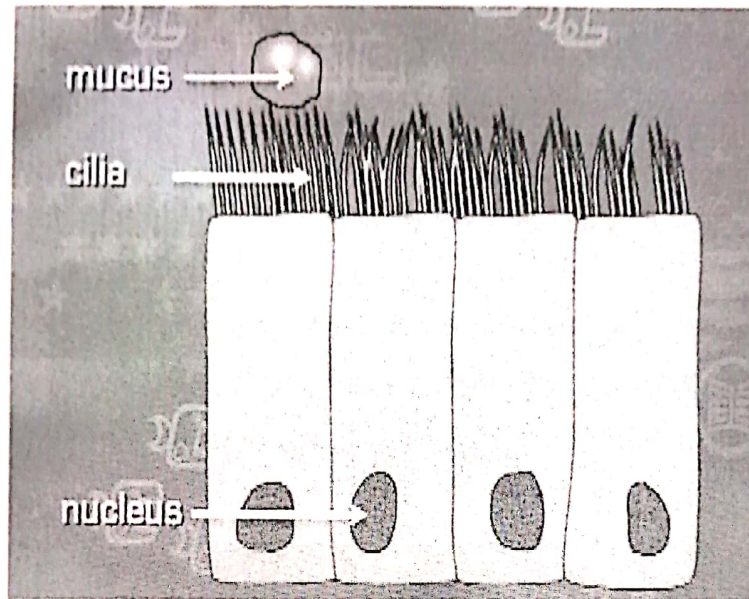
Q3. State how do red blood cells carry oxygen in blood vessels of the body?

Ans. Red blood cells do not have a nucleus. This is so that there is more room for the molecule haemoglobin to carry oxygen. Their biconcave disc shape allows red blood cells to be flexible, so they can be pushed through the narrowest blood vessels. Their shape also gives them a large surface area for gas exchange.

Q4. How do white blood cells defend body system?

Ans. Some white blood cells can change shape to squeeze between other cells and also move around a foreign object (e.g bacteria) and engulf it.

Q5. Draw and label a diagram of ciliated epithelial cell.



Q6. What is the function of nerve cells?

Ans. Nerve cells are specialized to carry electrical impulses. They are very long so the impulse is carried over a large distance without interruption.

Q7. Describe how do a plant palisade cell is adapted to make food for the plant.

Ans. The palisade cells are oblong, closed, packed and have many chloroplasts to capture light energy for the leaf to make food for the plant. The cell wall and other parts of the cytoplasm are transparent to let the light through. Palisade cells use the light energy to turn carbon dioxide and water into glucose and oxygen.

Q8. How do root hair cells absorb water and nutrient from soil?

Ans. The surface area of a root hair cell is increased by the hairs so that more water can be absorbed into the roots. There are no chloroplasts and storage structures so the cells are transparent. However they have organelles to release energy so that some mineral salts can be actively absorbed into the cell from the soil.

Diagram pg 22

Q9. Fill in the blanks.

1. Food that is stored in animal cell is mainly glycogen.
2. Food that is stored in plant cells is mainly called starch.
3. The cells that carry out photosynthesis are called palisade cells.
4. Ciliated cells help to remove pathogens from the respiratory tract.
5. Red blood cells do not have a nucleus.