 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Identify the principal features of a cheek cell and describe their functions.



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| --- | --- | --- |
| Know |  | Apply21 |
| Ideas |  |  |  |
| K1 | Multicellular organisms are composed of cells which are organised into tissues, organs and systems to carry out life processes. |  | A1 | Explain why multi-cellular organisms need organ systems to keep their cells alive. |
| A2 | Suggest what kind of tissue or organism a cell is part of, based on its features. |
| K2 | There are many types of cell. Each has a different structure or feature so it can do a specific job. |  | A3 | Explain how to use a microscope to identify and compare different types of cells. |
|  |  | A4 | Explain how uni-cellular organisms are adapted to carry out functions that in multicellular organisms are done by different types of cell. |
| Skill |
| K3 | Use a light microscope to observe and draw cells. |  |  |
|  |  |  |  |
| Facts |
| K4 | Both plant and animal cells have a cell membrane, nucleus, cytoplasm and mitochondria. |  | A5 |  |
| K5 | Plant cells also have a cell wall, chloroplasts and usually a permanent vacuole. |  |  |  |
|  |  |  |  |
| Key words |
| K6 | **Cell:** The unit of a living organism, contains parts to carry out life processes. |  |  |  |
| K9K7K8 | **Uni-cellular:** Living things made up of one cell. |  | A6 |  |
|  | **Multi-cellular:** Living things made up of many types of cell. |  |  |  |
|  | **Tissue:** Group of cells of one type.**Organ:** Group of different tissues working together to carry out a job.K10 |  |  |  |
| K11 | **Diffusion:** One way for substances to move into and out of cells. |  |  |  |
| K12 | **Structural adaptations:** Special features to help a cell carry out its functions. |  |  |  |
| K13 | **Cell membrane:** Surrounds the cell and controls movement of substances in and out. |  |  |  |
| K14 | **Nucleus:** Contains genetic material (DNA) which controls the cell's activities. |  |  |  |
| K15 | **Vacuole:** Area in a cell that contains liquid, and can be used by plants to keep the cell rigid and store substances. |  |  |  |
| K16 | **Mitochondria:** Part of the cell where energy is released from food molecules. |  |  |  |
| K17 | **Cell wall:** Strengthens the cell. In plant cells it is made of cellulose. |  |  |  |
| K18 | **Chloroplast:** Absorbs light energy so the plant can make food. |  |  |  |
| K19 | **Cytoplasm:** Jelly-like substance where most chemical processes happen. |  |  |  |
| K20 | **Immune system:** Protects the body against infections. |  |  |  |
| K21 | **Reproductive system:** Produces sperm and eggs, and is where the foetus develops. |  |  |  |
| K22 | **Digestive system:** Breaks down and then absorbs food molecules. |  |  |  |
| K23 | **Circulatory system:** Transports substances around the body. |  |  |  |
| K24 | **Respiratory system:** Replaces oxygen and removes carbon dioxide from blood. |  |  |  |
| K25 | **Muscular skeletal system:** Muscles and bones working together to cause movement and support the body. |  |  |  |
| 3 | Extend |  |  |  |
| E1 | Make deductions about how medical treatments work based on cells, tissues, organs and systems. |  |  |  |
| E2 | Suggest how damage to, or failure of, an organ would affect other body systems. |  |  |  |
| E3 | Deduce general patterns about how the structure of different cells is related to their function. |  |  |  |
| E4 |  |  |  |  |
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| E5 |  |  |  |  |
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