

Edexcel IGCSE Biology (2017) 9-1

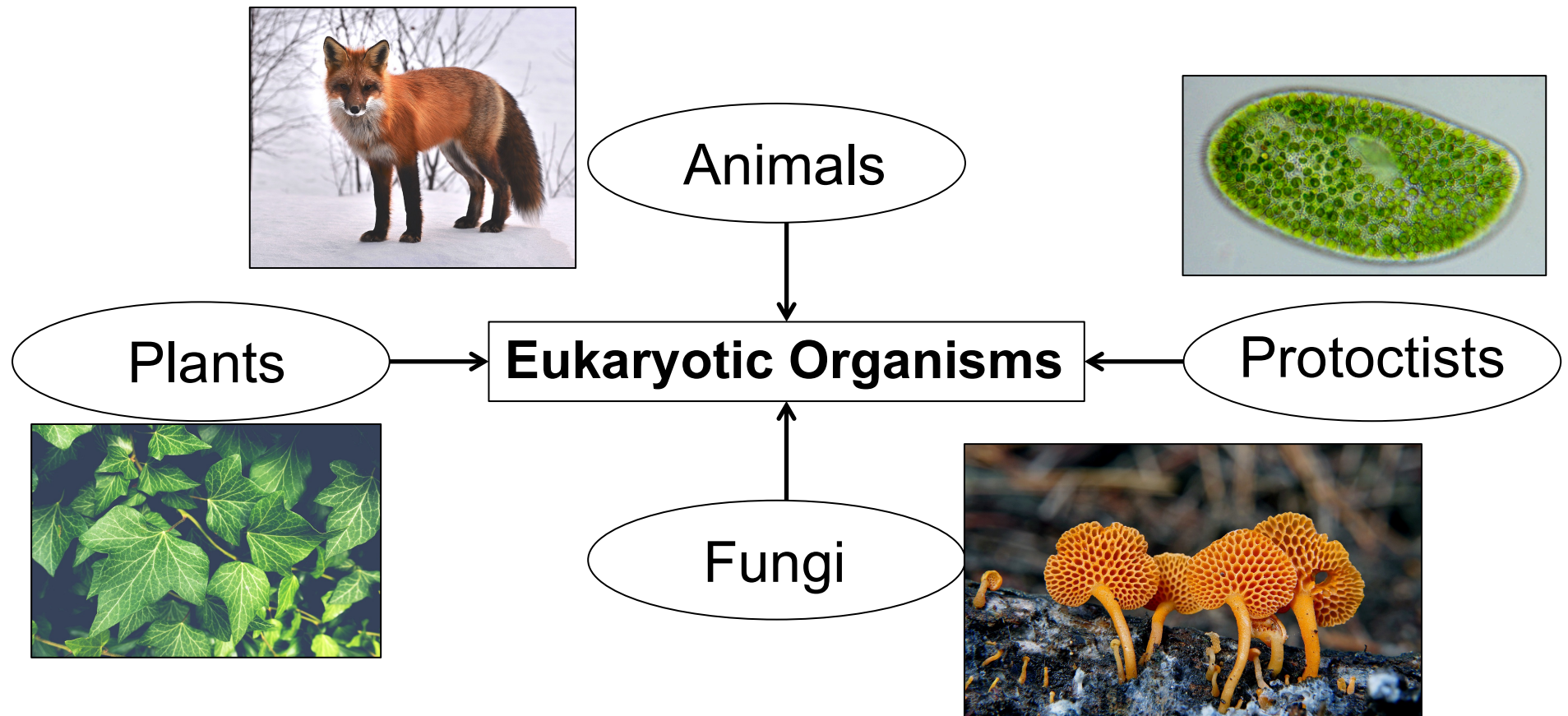
Topic 1.2

(b) Variety of living organisms

1.2 Describe the common features shown by eukaryotic organisms: Plants, animals, fungi & protocists.

Eukaryotic Organisms

- Eukaryotic organisms contain cells with **membrane-bound nucleus**.



1) Plants

- **Multicellular** organisms.
- Cells contain **chloroplasts** for **photosynthesis**.
- Cells have **cell walls** made up of **cellulose**.
- They store carbohydrate **starch**.

EXAMPLES

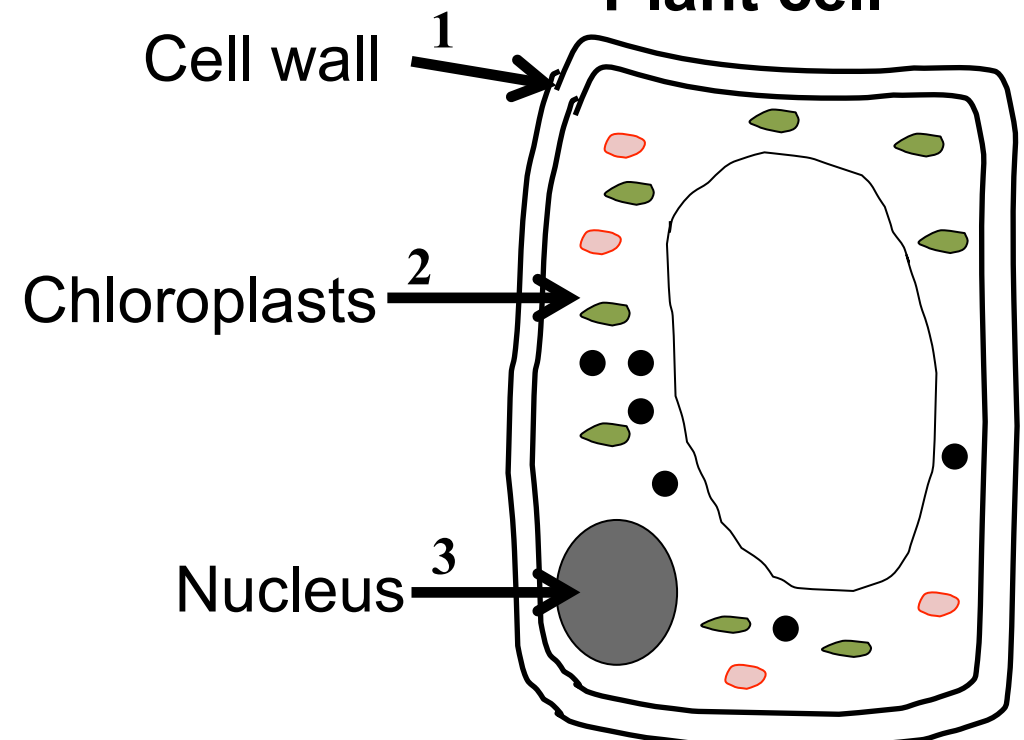
Flowering plants

- 1) **Cereals: Maize**
- 2) **Herbaceous legumes**
(pea & bean plant).

Plants



Plant cell



2) Animals

- **Multicellular** organisms.
- Animals can **move**, coordinated by **nervous system**.
- Their cells **DO NOT** contain **chloroplasts & cell walls**.
- The cells store carbohydrate **glycogen**.

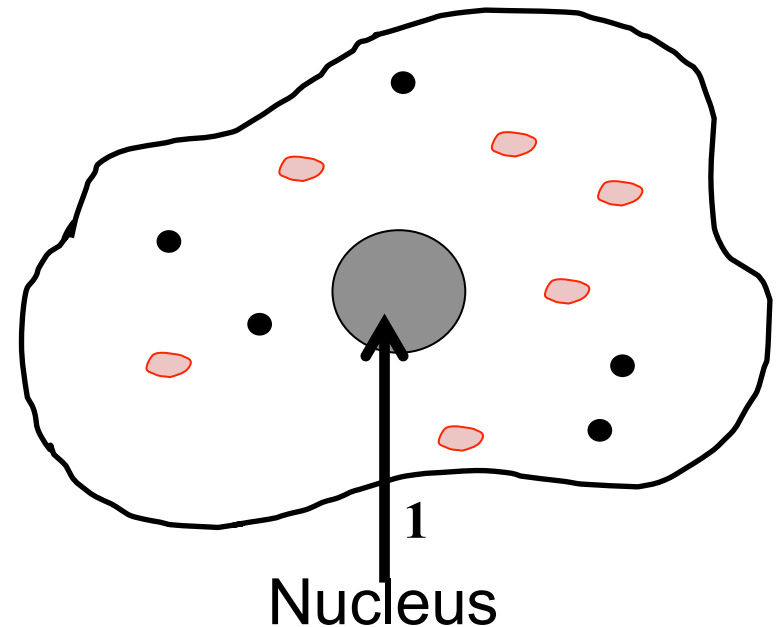
EXAMPLES

- 1) **Mammals:** Humans
- 2) **Insects:** Housefly & mosquito.

Animals



Animal cell



Summary

| PLANTS | ANIMALS |
|---|--|
| Multicellular | Multicellular |
| Cells contain chloroplasts | Cells do not chloroplasts |
| Contain cellulose cell walls | Do not contain cell walls |
| Carry out photosynthesis - food | Feed on animals and plants |
| Store carbohydrate starch | Store carbohydrate glycogen |
| Plants move (short) | Move from one place to other |
| No nervous coordination | Nervous coordination |
| Flowering plants 1) Cereals: Maize 2) Herbaceous legumes (pea & bean plant). | 1) Mammals: Humans 2) Insects: Housefly & mosquito. |

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