

Inquiry question: Is success the same for everybody?

Science unit: Plants and habitats

Strand: Biology

What children will need to already know to access this unit:

- That most living things including plants live in habitats to which they are suited.
- The differences between living, non-living and things that have never been alive.

Why is this unit being taught in this term and links to previous learning?

- It links to the inquiry question
- Core knowledge and curriculum entitlement
- Follows on from work in Key Stage 1 about living things in their habitats.
- Links with competition and having the power to change the world in Klimt.
- Next term looking at the life cycle of a plant.

Science skills – Scientific Enquiry

- Investigating how to prove that the world is spherical.
- Pattern spotting (PE) Do people with longer arms throw further?
- Observing the transportation of water through a plant.
- Ask questions about how the Ancient Greeks discovered that the earth was spherical
- Identify similarities and differences between living things.
- Classify using simple keys to identify and name living things in their environment.

Key vocabulary/glossary of terms:

spherical	having or nearly having the shape of a sphere; rounded; globular.
flourish	to grow in a strong, healthy way
vertebrate	having a backbone
invertebrate	without a backbone
environment	everything that surrounds a particular type of living thing and affects its growth and health
classify	to group or order according to criteria
criteria	a principle or standard by which something may be judged or decided.
transport	take or carry from place to another
key	A key is a set of questions about the characteristics of living things. You can use a key to identify a living thing or decide which group it belongs to
Theophrastus	a student of Aristotle in Ancient Greece , wrote Historia Plantarum , the earliest surviving work on plants

For further vocabulary refer to the Twinkl word banks saved in teams.

What will children know by the end of this unit:

What helps a plant to grow successfully?

- That plants have requirements in order to grow and flourish. air, water, sunlight, nutrients from the soil, room to grow, suitable temperature. The amount of each of these may vary depending on the type of plant. For example, cacti need less water than other plants
- The petals on a flower are usually bright - this is to attract bees and other insects (pollination will be taught in the next unit)

How water is transported within plants:

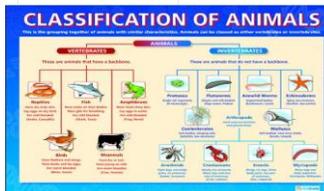
- Water and nutrients are absorbed from the soil by the roots.
- The stem carries water and other nutrients from the roots to the rest of the plant. Leaves use this water to make food.
- The stem also helps to keep the plant upright so that the sunlight can reach it easier.
- The roots help to 'anchor' the plant in the soil.

Grouping living things:

- Living things can be grouped in a variety of ways. (vertebrate, invertebrate)
- Animals and plants are classified according to criteria.

Human impact/discovery

- That environments can change and that this can pose dangers to living things.
- It was the ancient Greeks that discovered the earth was round.
- Who Theophrastus was



Teacher Notes

Next term the children will learn about the plant's life cycle. Make the connection to the Ancient Greeks as they studied where plants lived and how they grew. Also link this to the Bible story of the sower. Which seeds were successful and which were not? Reasons for flourishing. The philosopher [Theophrastus](#) (372–287 BC), as a student of [Aristotle](#) in [Ancient Greece](#), wrote [Historia Plantarum](#), the earliest surviving work on plants, where he listed the names of over 500 plant species. He did not articulate a formal classification scheme, but relied on the common groupings combined with growth form: tree shrub; undershrub; or herb. This is in preparation for year 5/6 work on Carl Linnaeus – classifying plants.