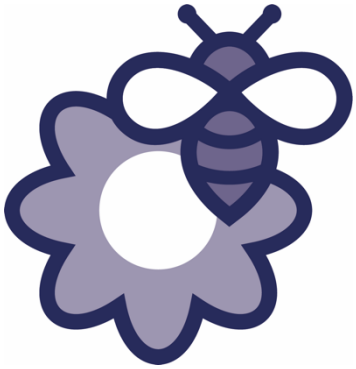
# Human Interaction



*What effects are humans having on the environment? How does this affect different ecosystems? What can humans do to reduce their impact?*

Living things are interdependent, which means that they interact with each other for survival. This includes feeding relationships, shown in food chains and webs, and if one population is affected it can have an effect on the rest of the ecosystem. Human activities are having an impact on biodiversity on Earth, putting ecosystems at risk, but there are actions that can be taken to reduce these effects.

This is the **second** unit we are studying as part of the big idea: **Organisms are interdependent.**

In this unit we will learn about biodiversity and why it is so important for the survival of organisms, including humans. We will learn about the variety of ways that the global human population is affecting the environment; including how different types of pollution and the destruction of habitats is reducing biodiversity. We will also learn different approaches being used across the globe to prevent this decrease in biodiversity and consider how indicator species can be used to monitor environmental pollution.

We will learn how the efficiency of energy transfer decreases throughout a food chain and how that applies to pyramids of biomass. We will use this to consider why reducing meat intake is a sustainable choice. Finally we will look at why food security is so threatened, and how it can be enhanced through the use of initiatives and the development of new technologies. We will also develop our knowledge and skills of sampling techniques, and understand why evidence is so important when proposing a scientific theory.

TASKS:
What subject will this unit focus on? BIOLOGY CHEMISTRY PHYSICS
(circle the correct subject)

There are lots of keywords underlined above. List these into the two columns:

| Words I know | Words I haven't seen before |
|---|---|
| | |

**To answer before the unit:**

1. What are you most excited to learn about in this topic?

   _____

   _____

   _____

2. What do you already know about this topic?

   _____

   _____

   _____

3. Why do you think it's important to learn that cells are alive?

   _____

   _____

   _____

4. What knowledge from previous science lessons might help us?

   _____

   _____

   _____

5. What questions do you have about this topic?

   _____

   _____

   _____

**To answer at the end of the unit:**

1. Tick off any words in the 'words I haven't seen before' column that you are now confident with. Circle any you still need more practice to use.

2. What have you most enjoyed about this unit?

   _____

   _____

   _____

3. What more would you like to learn about as part of the big idea: 'cells are alive'?

   _____

   _____

Teacher guidance:

The purpose of this resource is to provide students with an overview at the beginning and end of each unit. It is designed to create a discussion about the unit prior to the sequence of lessons.

The unit scope should be read as a guided reading activity. Tier 3 vocabulary has been highlighted. It may need to be adapted further for LPAs or pupils with different reading ages.

There are a range of ways to use this resource.

1. Display on a slide for students to read as a class. Direct students to complete the activities in their book.

2. Print off for students to stick into their book at the beginning of the unit along with their knowledge organiser. Complete as a guided reading task together. Direct students to complete the activities.

3. Have students complete as part of a booklet.

4. Set as a homework prior to a unit.

*If you have any feedback about how this resource could be used/improved, please contact the science mastery team: sciencemastery@arkonline.org*