

HAPPY PLANTS

FACILITATOR GUIDANCE

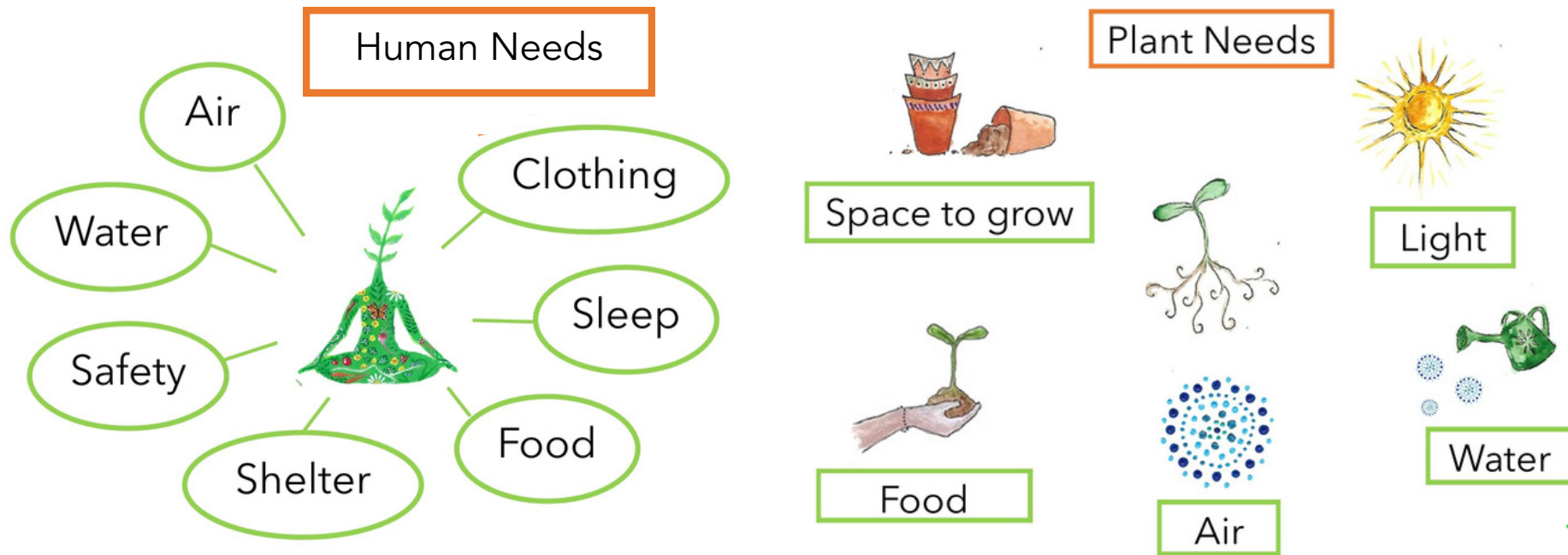
Aim: To help young people understand what makes plants happy.

Key questions to ask young people during the session:

1. What basic needs do plants need to grow and thrive?

- Sunlight
- Water
- Food

Note the similarities with humans (for example, we all need food, and most of our food comes from plants or animals that eat plants)

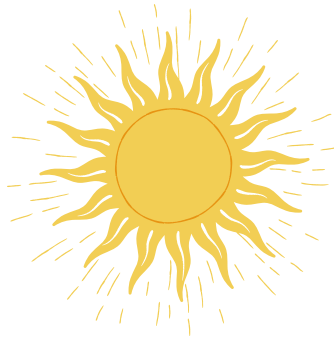


HAPPY PLANTS

FACILITATOR GUIDANCE

2. Where do plants get their basic needs from?

- Sun
- Rain or watering from humans
- Soil



If time / depending on your group:

Where do humans get their basic needs from?

For example, modern agriculture, supermarkets vs (past) hunter-gatherers, harvesting, small-scale growing



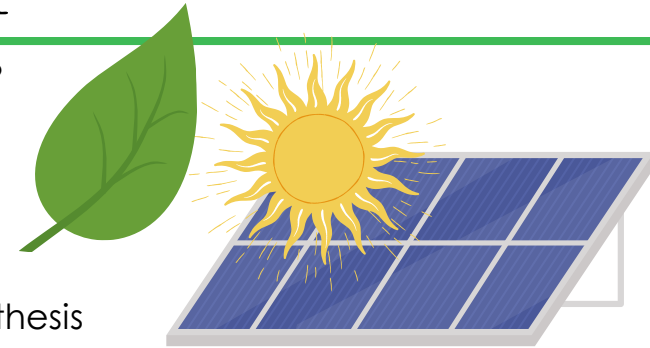
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FACILITATOR GUIDANCE

3. What has nature given plants in order to get these basic needs?

- **Leaves as 'solar panels':**

- Designed to catch the sun's rays
- Act very much like solar panels
- The leaves convert the sun's energy into food by photosynthesis



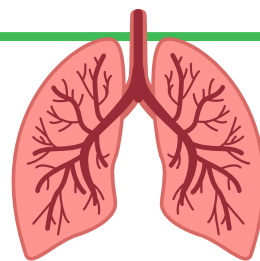
- **Leaves are rainwater 'catchers':**

- Designed to act as a baseball glove to collect water from plants
- For example, rhubarb leaves collect water and allow it to flow directly to the soil at the stem's base
- You could pour water on soil to show how much water is needed to pass through the whole soil profile



- **Roots: what do they do?**

- Similar in structure to lungs and transport systems (if you look at a map!)
- Like lungs and roads, roots connect the rest of the plant to vital resources ie nutrients
- Connections to other plants (including mycelium networks): like human communities, plants can be stronger together and share vs compete for resources



HAPPY PLANTS

FACILITATOR GUIDANCE



calendula flower



Potato flower



courgette flower



daisy seedhead

Flowers: what do they do?

- Pollination and plant reproduction / multiplication
 - Flower shapes are adapted to pollinators that visit them e.g helicopter landing pad for hoverflies, trumpet shapes for butterflies with long tongues etc.
 - Pollinators and ecosystem chains
- Lifecycle of a plant: turning to fruit -> seed -> decomposition (soil) -> growth
- Provision of food for humans, animals and in a sense, the soil

3. How do we know if a plant is happy?

Find an example of happy plants at your allotment and...

- Discuss the **appearance** of a plant: **does it look / feel healthy?**
 - Use some describing words to communicate thoughts, focusing on colour, texture, shape etc. and encourage sensory exploration.
- **Flowers:** why is this a clear sign that a plant is happy?
- **Fruit** (e.g. tomato) or **produce** (e.g. potatoes): why is this a clear sign that a plant is extra happy?
- Ask the young people to find an example of a happy plant. They could:
 - Harvest
 - Describe
 - Draw
 - Take pictures
 - Play charades! How would you move if you were a happy plant?



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FACILITATOR GUIDANCE

4. Conclusions

- Why are happy plants important for human beings, wildlife and nature/ecosystems?
- What happens to a plant if it's not happy (i.e it doesn't get its basic needs)
 - Can you find an example of an unhappy plant? How can we help it?
- How might climate change impact happy plants?
 - Why do you think climate change is a problem for happy plants?
 - Why might this be a concern for humans and other living things?



Extras

- Provide different examples of soil (sand, clay, loam, stony, poor/good quality etc) and get young people to use their senses and guess which soil might be best for plants to grow
- Provide 'props' or pictures/symbols of the ingredients of soil and compost (including some 'decoy' ingredients like biodegradable cutlery) and a mixing bowl / bucket and get young people to decide which ingredients are found in soil and why
- Talk about the importance of soil for all life, how it is threatened / being harmed and how allotments (including 'no dig') can be part of the solution
- One teaspoon of soil contains more organisms / living things than there are people on earth!