

We study a range of topics in Science from years 7 through to year 11, including organ systems and cells, acids and alkalis, electricity and energy, the Solar System, and many more fascinating topics.

Just to give you a head start to what is on offer in science, we will be looking at 2 topics, building on what you may have already learnt in primary school, to build the gap to secondary school.

The topics we will look into are:

- **Animal and plant adaptations**
- **Electricity safety in the home**

Useful websites to help you with the activities are below:

<https://www.bbc.co.uk/bitesize/subjects/zng4d2p>

<https://www.thenational.academy/online-classroom>

The activities can be completed on word or PowerPoint, or simply on a piece of paper!

Please find the activities below. Good luck and enjoy!

Section 1: Animal and plant adaptations.

One of the topics you will be learning about in Key Stage 3 is animal and plant adaptations, in greater depth to what you may have already covered in primary school.

Living things have special internal and external adaptations that enable them to survive in their habitats, such as large claws to tear into prey.

- 1) Do you know what the term 'adaptations' means? Write the meaning of 'adaptations' below:

- 2) Give the name of 2 species that live in cold environments.

- 3) Give the meaning of the term 'habitat'.

- 4) Give the name of 2 species that can live in urban environments

1) Below are 3 different species, each of which have different adaptations.

Your task is to research the following information for each of the species and write your answers on each page below the picture of the species.

- i. **At least 3 adaptations** for each species e.g. Sharp teeth
- ii. **A brief description** of that adaptation e.g. to tear flesh
- iii. **An explanation** on how that adaptation helps it to survive e.g. so that it can kill its prey, so that it can defend itself from competition.

Remember: this must be your own work and must not be copied from the internet! If you do use an internet site, remember to *change the words* to make it your own and to include the website/s at the end of this document.

a) **Polar bear**



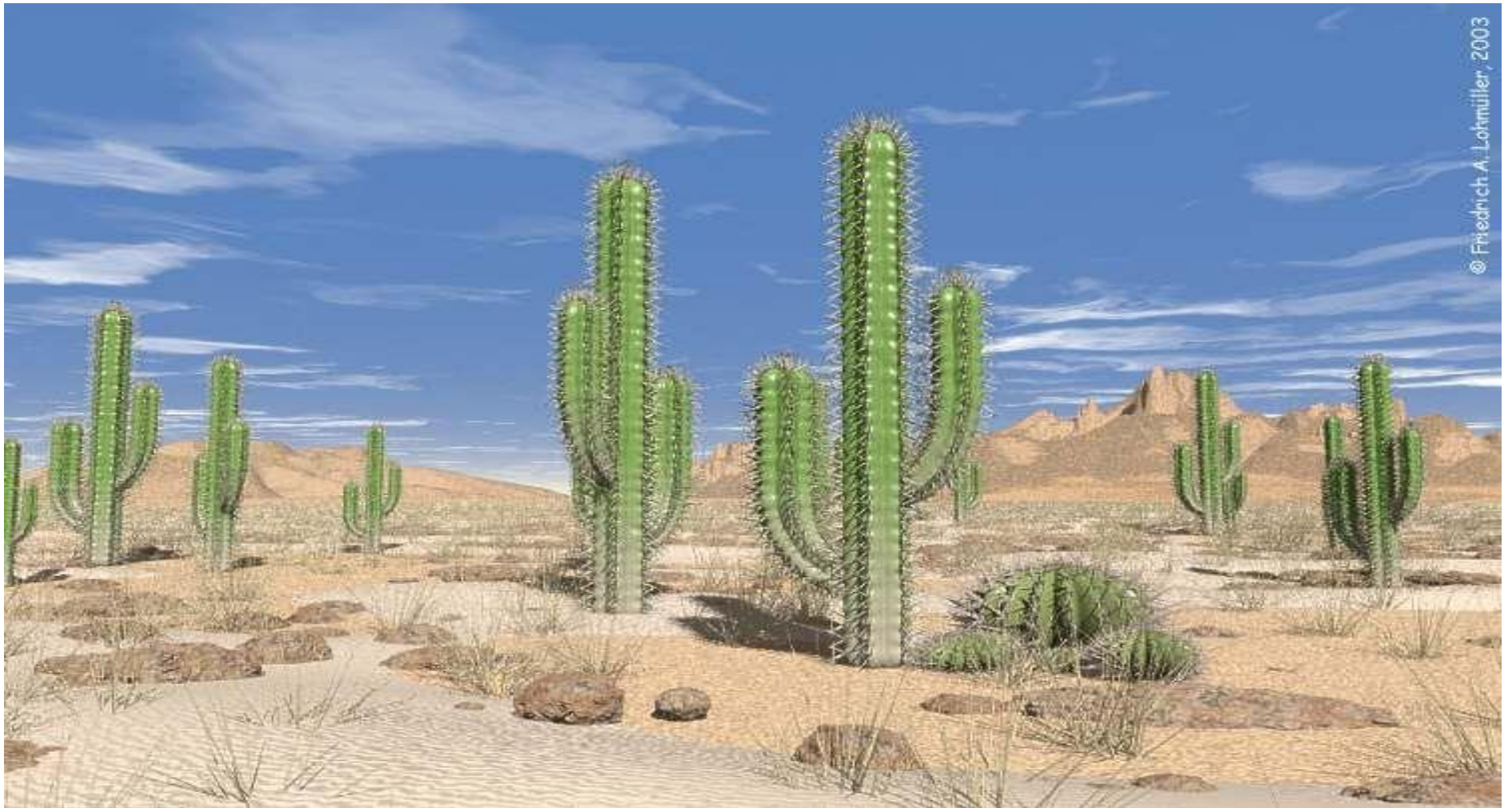
- i. **At least 3 adaptations** for each species e.g. Sharp teeth
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a) Camel



- i. **At least 3 adaptations** for each species e.g. Sharp teeth
- ii. **A brief description** of that adaptation e.g. to tear flesh
- iii. **An explanation** on how that adaptation helps it to survive e.g. so that it can kill its prey, so that it can defend itself from competition.

a) Cactus



- i. **At least 3 adaptations** for each species e.g. Sharp teeth
- ii. **A brief description** of that adaptation e.g. to tear flesh
- iii. **An explanation** on how that adaptation helps it to survive e.g. so that it can kill its prey, so that it can defend itself from competition.

Section 2: Electricity safety in the home

There are many devices that we can find at home that use electricity. We can plug them into a socket or we can put batteries in them.

It is important that we use electricity and electrical devices in a safe manner to protect ourselves and those around us.

Task:

Design a poster (on paper, Word, Powerpoint) informing others of using electrical devices at home in a safe manner.

Your poster must include the following information:

- 1) 10 electricity safety rules. e.g. never handle plug sockets with wet hands!
- 2) Images of any electrical devices found at home e.g. kettle, laptop.
- 3) Prevention measures: how can we protect ourselves further to prevent hazards
- 4) Reasonable explanations: e.g. water is a good conductor of electricity.

Poster:

Websites I have used to help me: