Australian Curriculum Year 5 Science Sample assessment | Student booklet

Adaptations

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| Research structural and behavioural adaptations that assist animals to survive in their environment and use this information to develop explanations and predictions. |
| **You will:**   * research the environment and structural and behavioural adaptations of an Australian animal to explain how these adaptations help the animal to survive in its environment. * research structural and/or behavioural adaptations of animals that live in an extreme environment and identify structural features and/or behaviours that are common across the animals. * predict how global warming might affect the survival and future adaptations of animals. |

## Section 1. Researching animal adaptations

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| Adaptations are features and behaviours that help plants and animals to survive in the environment that they live in.  A living thing’s adaptations are most effective in its own environment. If its environment changes, these adaptations may no longer be effective and the living thing may have difficulty meeting its needs.  **Structural adaptations** are the physical features that help organisms to survive.  **Behavioural adaptations** are the things organisms do in order to survive.  An **environment** is the surroundings, both living and non-living, that an animal or plant lives in. |

### What you need to do

* Select **one** of the following animals.
* Research the environment the animal lives in and its structural and behavioural adaptations.
* Record the information in the table on the next page and **explain** how these adaptations help the animal to survive in its environment.

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| **Echidna** | **Platypus** | **Camel** |
| Image: *echidna*, Frankzed, Creative Commons Attribution 2.0, [www.flickr.com/photos/ frankzed/6387790241](http://www.flickr.com/photos/frankzed/6387790241) | Image: Feeding Platypus, Brisbane City Council, Creative Commons Attribution 2.0, [www.flickr.com/photos/brisbanecitycouncil/6811147158](http://www.flickr.com/photos/brisbanecitycouncil/6811147158) | Image: *It’s Camel*, Tarek Siala, Creative Commons Attribution 2.0, [www.flickr.com/photos/tarksiala/10591251906](http://www.flickr.com/photos/tarksiala/10591251906) |

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| **My research** |
| **The animal I have chosen is:**  **The type of environment it lives in is:** |
| The **structural** adaptations of this animal include:  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  *Explain* how these physical features help the animal to survive in its environment:  .........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  ........................................................................................................................................................... |
| The **behavioural** adaptations of this animal include:  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  *Explain* how these behaviours help the animal to survive in its environment:  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  ...........................................................................................................................................................  ........................................................................................................................................................... |

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| Whenever you conduct research it is important to acknowledge where you got your information from. Complete the details below for each source of information that you used to complete the table above. |
| **Source 1:**  Internet site 🞏 Book 🞏 Magazine 🞏 Other:  Site name and URL:  Author, title and publisher:  Date accessed or published: Page no/s: |
| **Source 2:**  Internet site 🞏 Book 🞏 Magazine 🞏 Other:  Site name and URL:  Author, title and publisher:  Date accessed or published: Page no/s: |
| **Source 3:**  Internet site 🞏 Book 🞏 Magazine 🞏 Other:  Site name and URL:  Author, title and publisher:  Date accessed or published: Page no/s: |
| **Source 4:**  Internet site 🞏 Book 🞏 Magazine 🞏 Other:  Site name and URL:  Author, title and publisher:  Date accessed or published: Page no/s: |

## Section 2. Researching adaptations of animals that live in extreme environments

* Select **one** of the following environments.
* Identify three animals that live in your chosen environment.
* Research up to three structural and/or behavioural adaptations of each animal and **explain** how these physical features and behaviours help the animal to survive in its environment.
* Record the information in the table below.

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| **Antarctica**    Image: *Antarctica Sailing Trip*, 23am.com, Creative Commons Attribution 2.0, [www.flickr.com/photos/23am/3254471852](http://www.flickr.com/photos/23am/3254471852) | **The Sahara Desert, Africa**    Image: *Sahara Desert*, wonker, Creative Commons Attribution 2.0, [www.flickr.com/photos/wonker/4301197324](http://www.flickr.com/photos/wonker/4301197324) |

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| **My research** | | |
| **The environment I have chosen is:**  **The features of this environment are:** | | |
| Animal | Structural or behavioural adaptations | Explain how does this structural feature or behaviour help the animal to survive in this environment? |
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| **Source 4:**  Internet site 🞏 Book 🞏 Magazine 🞏 Other:  Site name and URL:  Author, title and publisher:  Date accessed or published: Page no/s: |

## Section 3. Analysing adaptations

Look at the list of structural and behavioural adaptations of the animals that live in your chosen extreme environment. Analyse them to identify any commonalities.

1. What structural features and/or behaviours are common across the animals?

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1. Give a justified prediction of how global warming might affect the survival and future adaptations of the animals in your chosen environment.

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