



# **MIDDLE PRIMARY**

## **Advance Science**

### **E-Booklet**

### **Part 3**



## Producers, Consumers and Decomposers Exercise 2

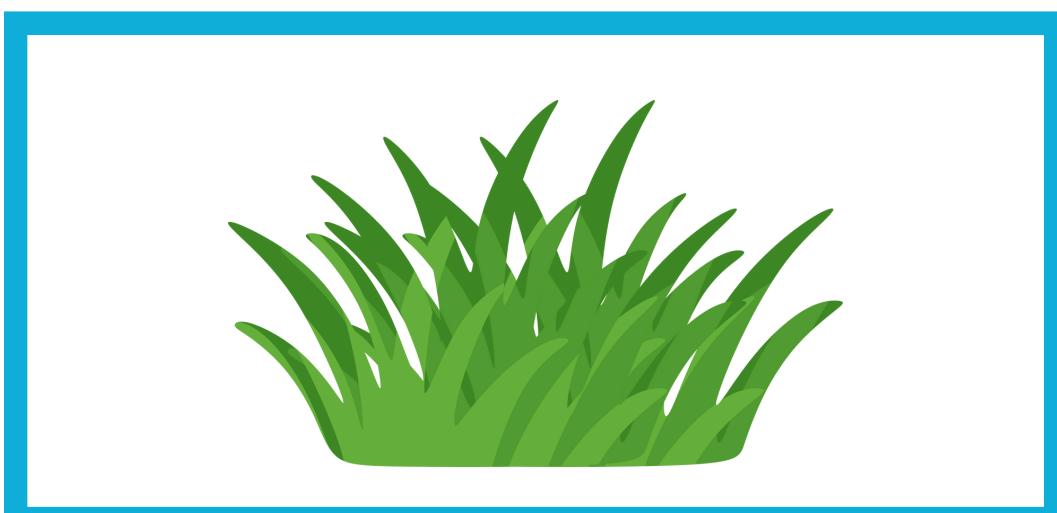
Middle Primary Advance Science

Classify each living things to where they belong. Write producer, consumer, or decomposer on the space provided.

**Producers:** These organisms can produce their own food through photosynthesis.

**Consumers:** They are organisms that cannot produce their own food and must obtain energy by consuming other organisms.

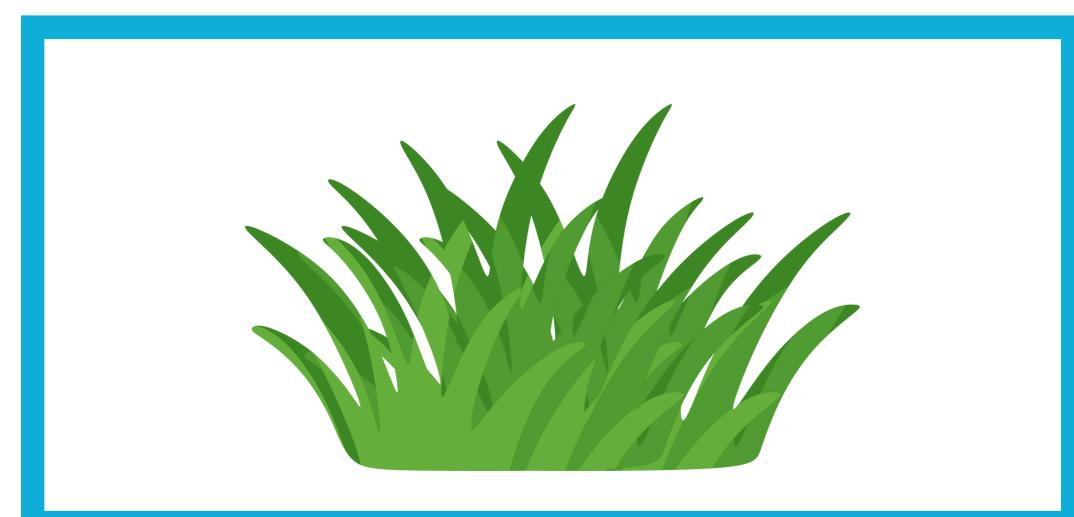
**Decomposers:** These organisms break down dead organic matter into simpler substances which are then recycled back into the ecosystem.



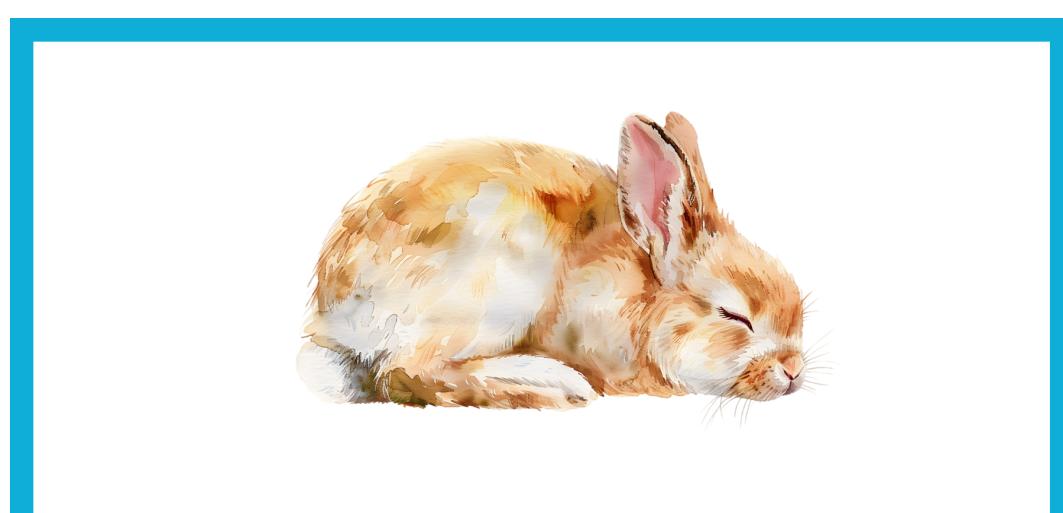
## Producers, Consumers and Decomposers Exercise 2 - Solutions

Middle Primary Advance Science

Classify each living things to where they belong. Write producer, consumer, or decomposer on the space provided.



Producer



Consumer



Decomposer



Consumer



## Science Understanding - Weathering, Erosion & Deposition

Middle Primary Advance Science

Read the passage. Answer the questions below.

Have you ever wondered how mountains, beaches, and valleys are formed?

The land around us is always changing because of three natural processes: weathering, erosion, and deposition.



Weathering happens when rocks break down into smaller pieces. This can occur because of wind, water, or changes in temperature. For example, in the Grampians in Victoria, rainwater slowly seeps into cracks in the rocks. When it freezes at night, the water expands and breaks the rocks apart. Over many years, this creates rough, crumbling cliffs and beautiful rock shapes.

Erosion is when rock and soil are carried away from one place to another by wind, water, or ice. In the Simpson Desert, the wind blows sand across the dry land, slowly wearing down sand dunes and moving them a little each year. Rivers also cause erosion. The Murray River, for example, cuts through soil and rock as it flows, carrying tiny bits of earth downstream. At the Twelve Apostles, powerful waves crash against the cliffs, eroding the base and causing some stacks to collapse over time.

Deposition happens when the wind or water slows down and drops the materials it was carrying. This is how new landforms can be created. Along the coast of Western Australia, waves and tides deposit sand along the shore, forming wide, golden beaches. The Mouth of the Murray River is another place where deposition builds up sand and mud, forming small islands and wetlands.

All these processes happen slowly over time, shaping Australia's amazing landscapes. From the red cliffs of the outback to our sandy beaches, weathering, erosion, and deposition work together to create the land we see today.



## Science Understanding - Weathering, Erosion & Deposition

Middle Primary Advance Science

### Questions

1. What are the three natural processes that change the land around us?

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2. What happens during weathering?

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3. How does rainwater cause rocks to break apart in the Grampians?

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4. What is erosion?

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5. Give one example from the text of where erosion happens in Australia.

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6. What is deposition?

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## Science Understanding - Weathering, Erosion & Deposition

Middle Primary Advance Science

### Questions

7. How are beaches formed along the coast of Western Australia?

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8. What landforms are created at the Mouth of the Murray River through deposition?

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9. How do weathering, erosion, and deposition work together to shape the land?

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10. Why do these processes take a long time to change the landscape?

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11. Weathering breaks rocks into smaller pieces using only wind. (True / False)

12. In the Grampians, freezing rainwater expands in rock cracks to break them apart. (True / False)

13. Erosion at the Twelve Apostles happens because waves crash against the cliffs and wear them down. (True / False)

# Science Understanding - Weathering, Erosion & Deposition Solutions



Middle Primary Advance Science

## Questions

1. What are the three natural processes that change the land around us?

The three natural processes are weathering, erosion, and deposition.

2. What happens during weathering?

Weathering happens when rocks break down into smaller pieces because of wind, water, or temperature changes.

3. How does rainwater cause rocks to break apart in the Grampians?

In the Grampians, rainwater seeps into rock cracks and freezes at night, causing the water to expand and break the rocks apart.

4. What is erosion?

Erosion is when rock and soil are carried away from one place to another by wind, water, or ice

5. Give one example from the text of where erosion happens in Australia.

One example is at the Twelve Apostles, where waves crash against cliffs, wearing them down over time.

6. What is deposition?

Deposition happens when the wind or water slows down and drops the materials it was carrying.

# Science Understanding - Weathering, Erosion & Deposition Solutions



Middle Primary Advance Science

## Questions

7. How are beaches formed along the coast of Western Australia?

Along the Western Australian coast, waves and tides deposit sand that forms wide, golden beaches.

8. What landforms are created at the Mouth of the Murray River through deposition?

At the Mouth of the Murray River, deposition creates small islands and wetlands.

9. How do weathering, erosion, and deposition work together to shape the land?

These three processes work together by breaking down rocks (weathering), moving them (erosion), and dropping them elsewhere (deposition) to form new landforms.

10. Why do these processes take a long time to change the landscape?

The processes happen slowly over many years, which is why landscapes change gradually.

11. Weathering breaks rocks into smaller pieces using only wind. (True / False)

Weathering uses wind, water, or changes in temperature.

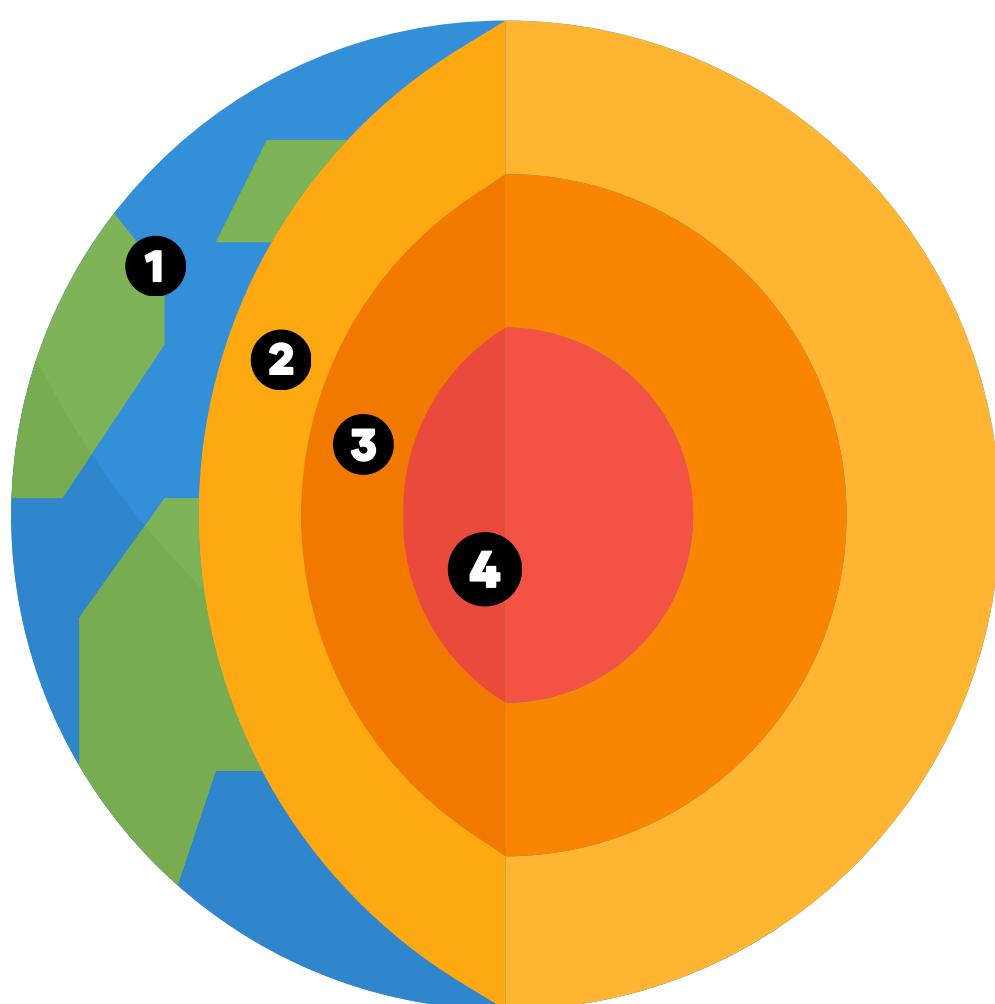
12. In the Grampians, freezing rainwater expands in rock cracks to break them apart. (True / False)

13. Erosion at the Twelve Apostles happens because waves crash against the cliffs and wear them down. (True / False)

## Layers of Earth

Middle Primary Advance Science

Match the layers of the Earth to their names.



Mantle



Crust



Outer Core



Inner Core

Match the features to the layers of the Earth.

### Layer of Earth

Crust

Inner Core

Mantle

Outer Core

### Clues

Thin rocky skin where we live, 5-40 km thick

Thick hot gooey rock that moves plates, makes volcanoes

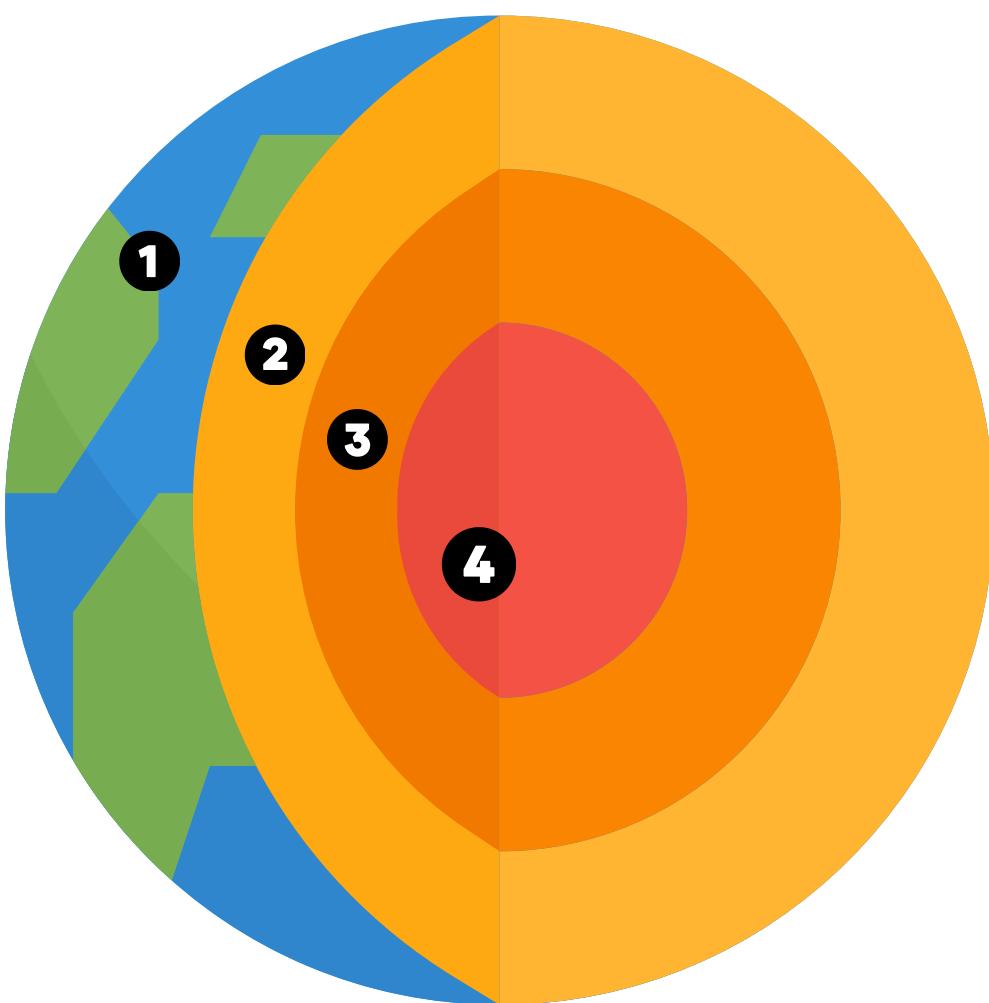
Solid hot metal ball, hottest part at center

Runny liquid iron, spins Earth's magnetic shield

## Layers of Earth - Solutions

Middle Primary Advance Science

Match the layers of the Earth to their names.



2 Mantle

1 Crust

3 Outer Core

4 Inner Core

Match the features to the layers of the Earth.

### Layer of Earth

### Clues

Crust

It is the thin outermost layer where life exists.

Inner Core

Thick hot gooey rock that moves plates, makes volcanoes

Mantle

Solid hot metal ball, hottest part at center

Outer Core

Runny liquid iron, spins Earth's magnetic shield

## Australian Animal Adaptations

Middle Primary Advance Science

Fill in the blanks to the correct animal and its adaptive features.



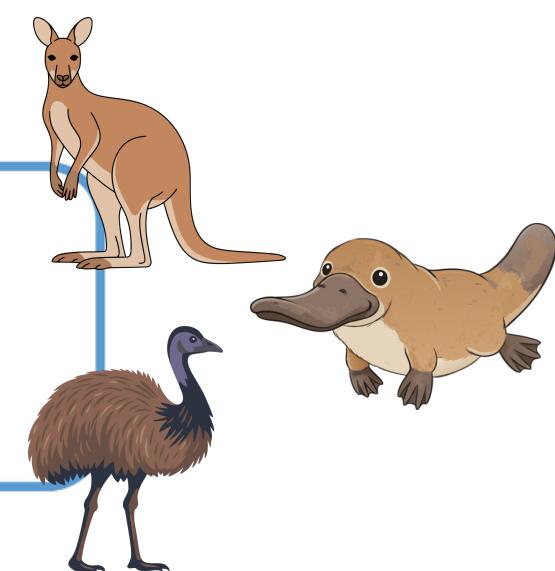
kangaroo

emu

Blue-tongue lizard

koala

platypus



Powerful hind legs to allow hopping fast and pouch to keep their young. The young need not cover the long distance as their mum does it for them.

It lives in eucalyptus trees and have special paws with two thumbs and sharp claws to grip branches tightly while climbing. Their belly breaks down poisonous leaves, thick fur keeps them warm and camouflaged.

It has a cool bill that senses tiny electric signals from fish twitching in muddy water, so it can find food even when it's too dark to see. It has a bill similar to a duck's bill.

It can't fly but they can run super fast on big open grasslands. Their feathers are light brown which helps them to camouflage with grassland environments. Sharp beak to help them spear and chew food.

Sticking out a bright blue tongue, combined with a wide pink mouth and loud hissing, it scare away predators. It has strong jaws for crushing tough food (insects, snails). It has scales that blend in with the Australian soil.

## Australian Animal Adaptations - Solutions

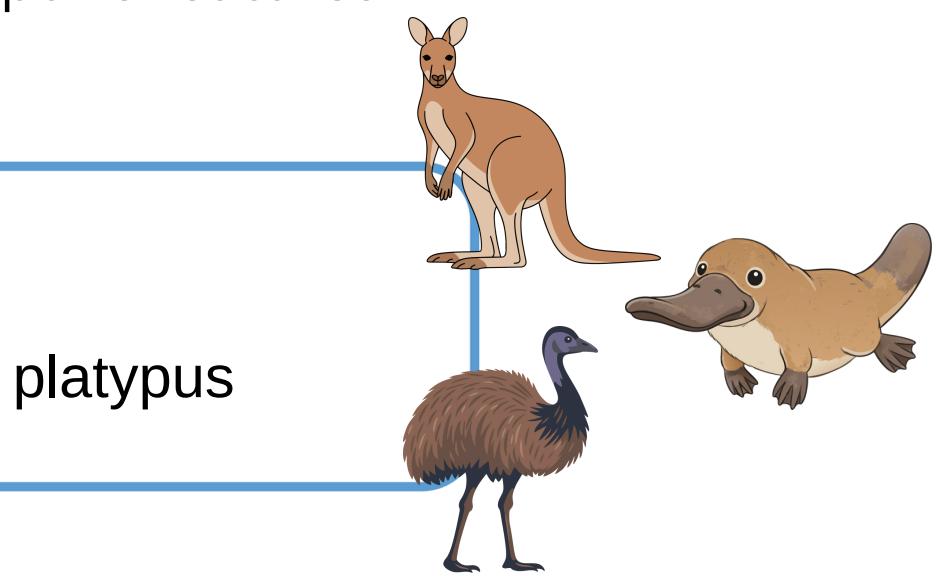
Middle Primary Advance Science

Fill in the blanks to the correct animal and its adaptive features.



kangaroo      emu

Blue-tongue lizard      koala



platypus

Powerful hind legs to allow hopping fast and pouch to keep their young. The young need not cover the long distance as their mum does it for them.

kangaroo

It lives in eucalyptus trees and have special paws with two thumbs and sharp claws to grip branches tightly while climbing. Their belly breaks down poisonous leaves, thick fur keeps them warm and camouflaged.

koala

It has a cool bill that senses tiny electric signals from fish twitching in muddy water, so it can find food even when it's too dark to see. It has a bill similar to a duck's bill.

platypus

It can't fly but they can run super fast on big open grasslands. Their feathers are light brown which helps them to camouflage with grassland environments. Sharp beak to help them spear and chew food.

emu

Sticking out a bright blue tongue, combined with a wide pink mouth and loud hissing, it scare away predators. It has strong jaws for crushing tough food (insects, snails). It has scales that blend in with the Australian soil.

Blue-tongue lizard