READING *across* the CURRICULUM 1

Non fiction text for Guided Silent Reading Lessons

MAMMALS

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CONTENTS

USING THE TEXT

COMPREHENSION STRATEGY INSTRUCTION "The Three Steps"

With a small group the text is processed one paragraph at a time using the following three steps.

STEP 1 SET A PURPOSE and READ SILENTLY

Teacher: "As you are reading this paragraph think about the topic and which of the headings would best summarise the information."

STEP 2 DETAILED RETELLING

Use THINKING ALOUD to model and practise the use of comprehension strategies

(Turn to page 49 for more information about these strategies and the 3 steps process)

Teacher models:

"The first bit of information says that '*Wombats only have one baby at a time'*.
I think that means that they don't have multiple births just one baby.
I wonder if that means they 'never' have more than one or just usually [***asking questions***]
Humans usually have one baby at a time but sometimes they have more than one." [***making connections to prior knowledge***]
"What's the next piece of information?"

Student A:

"The next bit says that '...The wombat has a backwards opening pouch.'
I think that means that the pouch opens from the back.
I don't think the pouch is on its back. I think it is on its stomach like a kangaroo but the opening is at the back near its back legs not at the front near its head [***forming an hypothesis***]. I can picture what that looks like with the pouch here facing this way (gesturing with hands) [***visualizing the action***]."

Teacher: "What's the next piece of information?"

Student B:

"It says that this pouch '...*protects the baby wombat from flying dirt when the mother is digging*.'
I think that means that the mother uses her front legs to dig and flicks the dirt backwards
I've seen lots of animals making burrows and they always use their front legs [***making connection to prior knowledge***] and because the opening of the pouch faces backwards [***making connection to previous information in the text***] the dirt doesn't get into it"……..

Students continue to take turns at retelling one piece of information at a time. The teacher has a turn regularly to model the process. As the students become more fluent the need for modeling decreases.

STEP 3 HEADINGS and TRIGGER WORDS

Teacher: "Can we decide on a heading to summarise the information?"

Student A:

"I think the heading is "Reproduction" because the paragraph is mainly about wombat babies in the mother's pouch and growing up."

Teacher: "What are TRIGGER WORDS for each piece of information
Student A: "One baby."
Student B: "Backwards opening pouch."
Student C: "Protection—digging dirt."
Student D: "Pouch-6 months."
Student E: "With mother 5-10 months."

Headings to choose from

MAN and WOMBATS
REPRODUCTION
PREDATORS
PHYSICAL FEATURES
HABITAT
CLASSIFICATION
SOCIAL BEHAVIOUR

Teacher: "Turn to the person next to you. Cover the text and have a go at retelling the information in your own words using just the trigger words."

Back to Step 1 for the next paragraph of the text

THE INFORMATION REPORTS—Reading Ages 7-14

An example: WOMBATS Set 3:4 Reading Age 9-10 years

WOMBATS

The wombat is a large, burrowing marsupial. It is the largest burrowing animal in the world.

Wombats look very cuddly. They are built especially for burrowing. The body is sturdy with a short tail and short, powerful legs. They have a thick neck and a blunt shaped head, which is used to bulldoze anything that gets in its way.

They spend over half of their life in their burrows. The burrow protects the wombat from the heat, cold, rain, bushfires and predators. They [illegible]rows in banks or the side of hills. They scrape with their [illegible]laws and shove the soil backwards with their back legs, [illegible] of earth outside. A burrow may be 30 metres long with seve[illegible]penings and may connect with others.

Text divided into paragraphs. Use "The Three Steps" on each paragraph.

STEP 1

STEP 2

Wombats only have one baby at a time. The wombat has a backward opening pouch that protects the very small, young wombat from flying dirt when the mother wombat is digging. The young wombat comes out of the pouch after six months. It will follow its mother around for another five to ten months before going off to find its own place to live.

STEP 3

Wombats eat grass, roots and herbs. They will spend from three to eight hours a night grazing. They have special front teeth, which they use for grazing. These grow all the time because they get worn down.

Wombats live alone except when breeding and raising babies. They will not share their feeding ground with any other wombats. They get rid of other wombats by snorting and by chasing them away. They mark out their area by leaving their scent and their droppings. Any new object in its feeding area is likely to be marked with the wombat's cube shaped droppings. The special cube shape means that the droppings are less likely to fall off these objects.

[illegible] are not able to see very well. They use smell and hearing [illegible]redators. Their natural enemies are Tasmanian devils and [illegible]hreatened, a wombat can move surprisingly quickly over a [illegible]ance, and will dive into a nearby hollow log or burrow. The [illegible] bottom is very tough and thick which protects it from bites [illegible]. If a predator follows a wombat into its burrow, the wombat [illegible] its bottom to trap the predator against the wall and crush its skull.

A small illustration at the bottom of the text to help visualize written description. The focus is on constructing meaning from the text with minimal visual information.

A lot of the wombat's natural habitat is being destroyed to make way for farms. Farmers consider them a pest because they damage fences and dig up crops. Many wombats are killed by cars on the roads at night.

Headings and trigger words
Use this column to write down a heading and trigger words so you can retell each paragraph.

Classification
- marsupial
- largest burrower

Physical features
- short tail
- powerful legs
- thick [illegible]
- blunt [illegible]
- bulldoz[illegible]

Column for student to record Headings and Trigger Words

Habitat
- burrow-half their life
- protection
- digs-banks, side of hills
- 30 metre burrow

Set 3:4 RA 9-10

Set number and Instructional Reading Age

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USING THE FOLLOW UP ACTIVITIES

COMPREHENSION STRATEGIES with BLOOM'S TAXONOMY

The purpose
These activities are not busy work. They are an important part of comprehension strategy instruction (see pages 49-50). The processing of information required by the higher level thinking activities extend comprehension by developing critical and creative thinking.
They provide students with meaningful, independent work while small group instruction is taking place.

Level 1

Remembering – What are the facts
These activities require students to locate factual information that can be found in the text and to make up their own literal comprehension questions.

Level 2

Understanding – Show that you understand the information
Students are asked to draw pictures with labels to demonstrate their understanding of important concepts in the text.
They are also asked to use the headings and trigger words that were recorded during Step 3 of the Guided Reading process, to rewrite the information in their own words. This is an excellent opportunity to develop note taking skills beyond the "cut and paste" mentality and develops a deeper understanding of information.

Level 3

Applying – Using the information in another way
These activities require students to take the information in the article and present it in a different way, in this case the narrative genre.
Activities include poems, stories, diary entries, and comic strips which should incorporate information from the report.

Level 4

Analysing – Identifying the features that help mammals survive
Students will need to reskim the text to create a list of physical features and then analyse how these attributes contribute to the mammals survival.
This information is then presented as an information web—see the example on page 58

Level 5

Evaluating – How safe is the mammal
Having identified how the mammal operates in the previous activity, students can now make an evaluation of the risk from predators and the mammal's status as an endangered species.

Level 6

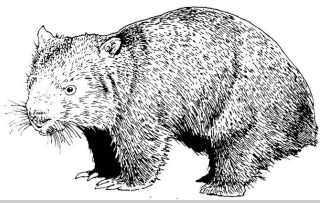
Creating - Coming up with new ideas
These activities allow students to have some creative fun with species adaptations but also to think seriously about raising awareness of the plight of the more endangered species.

Suggestions for successful implementation:

- Spend time teaching the activities
- Provide an audience—there should be a sharing time where work can be presented
- Allow choice—students find this very motivating
  —students who struggle with the complexity of the concepts in the report will find security in the lower level activities
  —more able students enjoy the creativity and challenge of the higher levels
- See pages 59 and 60 for suggestions about class organisation.

MAMMALS FOLLOW UP ACTIVITIES - a sample page

WOMBATS



Set 3:4 ACTIVITIES

Level 1

REMEMBERING - What are the facts

1. What are wombats especially built for?
2. How long is a wombats burrow?
3. Write 4 questions like the ones above. You must be able to find the answer in the report.

Level 2

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show that you understand how the backwards opening pouch works. Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph to rewrite the paragraph in your own words. If you have time, have a go at another one.

Level 3

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the wombat.
7. ***A day in the life of a wombat***
   Use the information in the report to describe a day in the life of a wombat.
   You can do this by writing a wombat story or by making a comic strip with captions.
   Try to include as many facts about wombats as you can.

Level 4

ANALYSING - Identifying the features that help wombats survive

8. ***Information Web***
   List all the physical features of the wombat mentioned in the report and brainstorm ways which these help the animal to survive. Present this as an INFORMATION WEB.

Example :  → special teeth → grazing grass

Level 5

EVALUATING - How safe is the wombat

9. ***Predator Rating—***give wombats a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report or your own ideas.

10 ***Extinction Rating—***give wombats an extinction rating from 1 to 10
   1= no risk of extinction ***10 = very close to extinction***
   Give reasons for your rating using information from the report and your own ideas.

Level 6

CREATING - Coming up with new ideas

11 ***Wombat Upgrade-overcoming threats***
   Make some improvements to the wombat's physical features and behaviour to help it survive the following changes to its habitat.
   - A large powerful digging mammal that likes the taste of wombat meat is introduced by farmers to get rid of the wombat pest
   - There are lots of floods and wombat burrows keep filling up with water

12 ***Action Plan—taking the nuisance out of wombats***
   Come up with some stunning new ideas so that wombats are no longer pests
   - Design a wombat proof fence
   - Keep wombats from damaging crops
   - Keep wombats off the road at night

Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

SEA MAMMALS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Mammals are animals that are warm-blooded. They have hair on their bodies. They give birth to live babies and feed them on their own milk.

There are a few mammals that live in the sea. Sea mammals spend most of their time in the water but some come to shore to rest. They have to breathe air so they cannot stay under water all the time as fish do.

Sea mammals have special features to help them survive in the water. Mammals can keep their bodies at the same temperature because they are warm-blooded. This makes it easier for sea mammals to stay warm in the cold sea. They also have a lot of fat to help them stay warm. They can go to sleep in the water without drowning and some have flippers to help them swim.

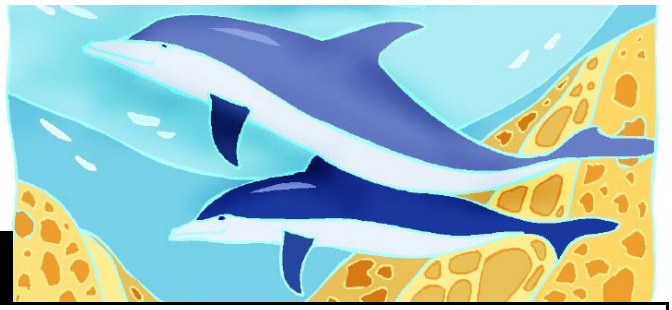
Sea mammals get a very good supply of food from the sea. Some sea mammals eat meat and some eat plants. All mammals need to eat food every day to keep their body going. They spend most of their time finding food.

All mammals have babies. Mammal babies grow inside the mother's body for a long time. When the babies are born, the mother feeds them with her milk.

Sea mammals often live in family groups. They remember each other and have ways of talking to each other. Baby mammals stay with their parents for a much longer time than most other animals. Sometimes other members of the group will help look after the young mammals.

Large sea animals such as sharks and killer whales prey upon smaller sea mammals. Some sea mammals have been hunted by man and may disappear forever.

SEA MAMMALS



Set 1:1 ACTIVITIES

REMEMBERING - What are the facts

1. What do mammals feed their babies ?
2. Why can't sea mammals stay under the water all the time ?

UNDERSTANDING - Show that you understand the information

3. Draw a picture of a sea mammal showing what it has to do to breathe.
   Include labels to explain what is happening in your drawing.

4. Use your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words.

APPLYING - Using the information in another way

5. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about sea mammals.

6. ***Comic Strip***
   Make a comic strip about sea mammals with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying features that help sea mammals survive

7. ***Information Web***
   Make a list of the physical features of a sea mammal mentioned in the report.
   Brainstorm how these features help them to survive.
   Show your thinking as an INFORMATION WEB.

   Example : **SEA MAMMALS** → warm-blooded → helps them stay warm in water

CREATING - Coming up with new ideas

8. ***Super Sea Mammal***
   Design a new super sea mammal who can survive really well in the ocean
   - Draw this new animal and label all its useful features
   - Describe how it gets air and food
   - Show how it protects itself from sharks and killer whales

   Remember to include pictures and labels to explain your interesting ideas

DOLPHINS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Dolphins are mammals that spend their whole lives in the sea.

They live in oceans all over the world. The sea is different from all the other mammal habitats but the dolphin is very much at home there.

Dolphins have lots of features that help them survive in the ocean. Their body shape is perfect for swimming in the water. They have no neck or shoulders. They have flippers instead of arms.

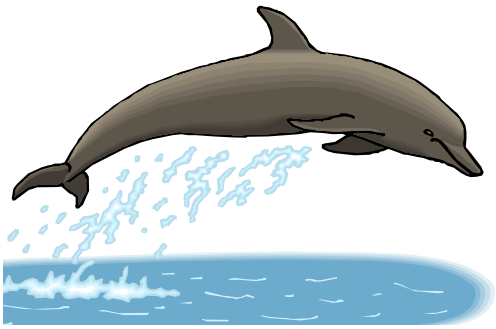
Dolphins breathe air through a hole on the top of their head. This means they don't have to come right out of the water to breathe. They can hold their breath under the water for a long time. They are able to dive 500 metres below the surface.

There is a layer of fat called blubber under the dolphins skin. This helps them to keep warm in the cold water.

Dolphins eat fish and squid. They make noises as they move through the water looking for food. The noises bounce off fish. The dolphin hears the sound as it comes back to them and they know where the fish are. Dolphins have lots of little pointed teeth. They use them to grab their food. They swallow their catch without chewing it.

Dolphins give birth to one baby at a time. The baby is called a calf. The calf is about one metre long when it is born and will grow to be four metres long. It is born under the water. The mother pushes the calf to the surface so that it can breathe air. The calf stays with its mother for three to six years.

Dolphins are very friendly. They like to swim and play with other dolphins and boats. If a dolphin is sick or hurt, other dolphins will push it to the surface so that it can breathe. They will also work together to catch fish.



DOLPHINS

Set 1:2 ACTIVITIES

REMEMBERING - What are the facts

1. Where do dolphins live ?
2. What does a dolphin have instead of arms ?
3. Write a question like the ones above.
   You must be able to find the answer in the report.

UNDERSTANDING - Show that you understand the information

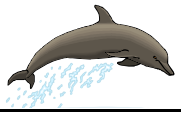
4. Draw a picture to show how a dolphin gets air to breathe.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the great life of a dolphin.
7. ***Comic Strip***
   Make a comic strip about a dolphin with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help dolphins survive

8. ***Information Web***
   Make a list of all the dolphin's physical features mentioned in the report.
   Brainstorm how these features help them to survive.
   Show your thinking as an INFORMATION WEB.

Example :  → flippers → help them swim

EVALUATING - How safe is the dolphin

9. ***Predator Rating—***give dolphins a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

10. ***Dolphin Upgrade***
    Make some improvements to the dolphin that would make it even easier to live in the ocean. You could make changes to
    - the way it breathes
    - the way it swims
    - the way it keeps warm
    - the way it finds food

Remember to include pictures and labels to explain your interesting ideas

WALRUSES

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Walruses are very large mammals. They spend most of their time in the sea.

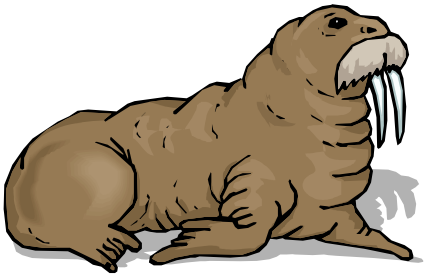
They live in the coldest parts of the world near the North Pole. They spend most of their day in the freezing water but come out to rest and sunbathe on rocks or large, flat pieces of floating ice called ice floes.

Like all mammals, the walrus has some hair on its body but the main way of keeping warm is the layer of fat, called blubber, under its skin. This layer is 10 cm thick.

A walrus has four flippers instead of legs and feet. The flippers are very strong and are shaped like paddles. On land it is not easy for them to move around but in the water the flippers are very good for swimming. They also have tusks. They use these to defend themselves and to pull themselves out of the water.

A female walrus has one pup every two years. A pup will often ride on its mother's back when it is very young. It holds on with its front flippers. A pup will stay with its mother for about two years. Then they are ready to find food for themselves.

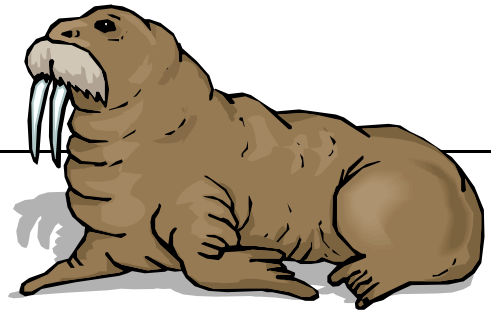
Walruses eat meat. They have large whiskers around their mouth, which help them find food in the soft sand on the ocean floor. They can stay under the water for ten minutes. Their main food is shellfish. They suck out the soft part and leave the empty shell. Sometimes they will kill and eat a small seal.



Walruses like to be around other walruses. They will gather together in groups of up to 2,000 on ice floes. If a walrus has been wounded, the others will help it onto the ice floe.

WALRUSES

Set 1:3 ACTIVITIES



REMEMBERING - What are the facts

1. Where do walruses live ?
2. How do walruses keep warm ?
3. Write a question like the ones above.
   You must be able to find the answer in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show how a walrus gets out of the water onto an ice floe.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the great life of a walrus.
7. ***Comic Strip***
   Make a comic strip about a walrus with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help the walrus survive

8. ***Information Web***
   Make a list of all the physical features of a walrus mentioned in the report.
   Brainstorm how these features help them to survive.
   Show your thinking as an INFORMATION WEB.

Example :  → tusks → help them get out of the water

EVALUATING - How safe is the walrus

9. ***Predator Rating—***give the walrus a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

10. ***Walrus Upgrade***
    Make some improvements to the walrus that would make it even easier to live in the ocean. You could make changes to
    - the way it gets out of the water
    - the way it swims
    - the way it keeps warm
    - the way it finds food

Remember to include pictures and labels to explain your interesting ideas

SEA OTTERS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Sea otters are mammals that spend most of their time in the sea.

Their favourite spots are beds of seaweed close to the shore. When they are not diving for food, sea otters spend their time floating on their back eating, cleaning their fur, or sleeping.

Sea otters are about a metre long. They have webbed back feet, which help them to swim. They use their front feet like hands to clean their fur and to pick up food from the sea floor.

Sea otters have very thick fur, which traps air in between the hairs. This helps them to float. It is also waterproof so they never really get wet and cold. They spend many hours every day cleaning their fur to make sure it works properly.

The sea otter gives birth to one baby at a time. The baby otter is helpless without its mother. It sits on its mother's stomach for the first two months. The mother only leaves the baby to dive for food. The baby's fluffy fur keeps it floating on the surface until she comes back. After six months it will be able to swim and dive for food.

Otters need a lot of food to keep them warm in the cold ocean. They collect food from the sea floor. They can stay under water for four minutes then they go back up to the surface to eat. They float on their backs and rest their food on their chest. If the food has a shell the otter will use a rock to crack it open.

Large sea mammals hunt sea otters. Eagles will sometimes take babies that are floating on the surface while the mother is diving for food.

Sea otters live in groups. They sleep in the water wrapped up in seaweed so that they don't drift away from each other.

SEA OTTERS

Set 1:4 ACTIVITIES

REMEMBERING - What are the facts

1. What is the sea otter's favourite spot ?
2. How long is a sea otter ?
3. Write a question like the ones above.
   You must be able to find the answer in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what happens to the baby sea otter when mum goes looking for food.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the great life of a sea otter.
7. ***Comic Strip***
   Make a comic strip about a sea otter with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help sea otters survive

8. ***Information Web***
   Make a list of all the sea otter's physical features mentioned in the report.
   Brainstorm how these features help them to survive.
   Show your thinking as an INFORMATION WEB.

Example :  → webbed back → help them swim

EVALUATING - How safe is the sea otter

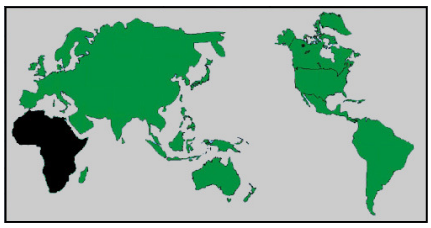
9. ***Predator Rating—***give the sea otter a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

10. ***Sea Otter Upgrade***
    Make some improvements to the sea otter that would make it even easier to live in the ocean. You could think about
    - improving waterproofing
    - babysitting
    - better tools for opening shells
    - keeping together while sleeping

Remember to include pictures and labels to explain your interesting ideas

MAMMALS of AFRICA



Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Mammals are animals that are warm-blooded and have hair on their bodies. They give birth to live babies and feed them on their own milk.

Because mammals are warm-blooded, they can keep their body at the same temperature. This makes it much easier to survive in all sorts of weather. Their fur or hair helps to keep them warm in cold weather. Every type of mammal also has other features that help them survive in the place they live. Big cats have claws so they can climb trees and deer can run very fast.

Mammals can live in a lot of different habitats. In Africa you will find mammals that can survive in the very hot desert. Others live in very cold conditions high in the mountains. Some mammals build burrows to protect themselves while others roam about without a home.

Some mammals eat meat. Some eat only plants. Some eat both meat and plants. Mammals need to eat food every day and most of their time is spent finding it. Some kinds of mammal are better at this than others and are able to survive more easily.

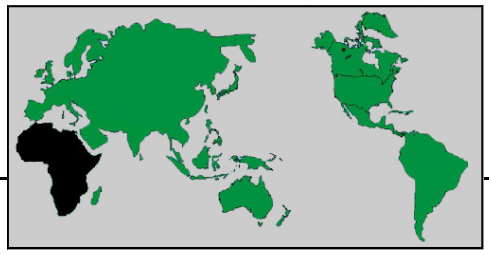
All mammals have babies. Some mammals are small in size and easily caught by other animals. They usually have a large number of babies to make sure that some survive. Mammal babies develop inside the mother for a long time. When the babies are born the mother feeds them with her milk.

Some mammals live in family groups. The other members of the group sometimes help the mother look after the young. Young mammals have a much longer childhood than other animals. The parents spend a lot of their time looking after them.

Most mammals hunt other kinds of animals for food. They may also end up as food for another animal that hunts them. Because of this, mammals work out ways to avoid being caught. Large mammals may not be in danger but they must protect their babies.

The biggest problem for large mammals is that people are taking up their wild habitats to build cities and farms. Some types of mammal have disappeared completely.

MAMMALS of AFRICA



Set 2:1 ACTIVITIES

REMEMBERING - What are the facts

1. How does hair and fur help a mammal ?
2. What do mammals spend most of their time doing ?
3. Write 2 questions like the ones above.
   You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw pictures of two of the habitats mentioned in the report.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about "Marvelous Mammals"
7. ***Comic Strip***
   Make a comic strip about mammals with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help mammals survive

8. ***Information Web***
   Make a list of the physical features of mammals mentioned in the report.
   Brainstorm how these features help them to survive.
   Show your thinking as an INFORMATION WEB.

Example : **MAMMALS** → warm-blooded → can live in many places

CREATING - Coming up with new ideas

10. ***The Ultimate Mammal***
    Design a new super mammal that could live anywhere in Africa
    - Draw this new creature and label all its useful features
    - Describe or draw its habitat and show what it needs to survive
    - What does it eat and how does it get its food
    - How does it protect itself from other animals

Remember to include pictures and labels to explain your interesting ideas

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The elephant is the largest and heaviest mammal on land.

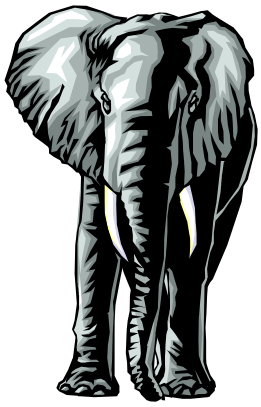
An elephant's trunk is very important. The elephant can smell danger, suck up water, and lift heavy objects with it. There are fingers on the end of the trunk that it uses to pick berries and leaves from trees. African elephants use their tusks to dig, to get bark off trees, and to lift things. The huge ears and the folds and wrinkles in the skin help it to keep cool.

African elephants have no one place that is home. Every day they feed, sleep, and travel to new feeding areas. As long as there is food and water to drink and bathe in they are happy. They will usually sleep standing up for a few hours during the day and in the middle of the night.

Elephants are plant eaters. They spend most of the day and the night eating. With their trunk they reach leaves that are high up and shake trees to bring down fruit. They use their tusks to dig up roots to eat. The older elephants teach the younger ones where to find food and water.

Female elephants live in family groups. They usually stay with the group they are born into. The oldest female is the leader. She knows where to find food and water and how to keep the family safe. When the male calves are fully grown, they leave the family and spend most of their time alone or with other males.

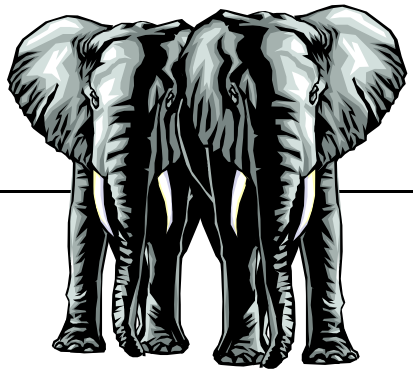
Females have a calf every four to six years. The calf has a lot to learn. It takes many months to learn how to control its trunk. All the family care for the young elephants. As female calves grow up, they take over looking after the very young elephants.



Because adult elephants are so big, predators leave them alone. Drought is their biggest worry because they need water every day.

Today elephants in Africa have to live in smaller areas because people take more and more land for farming. The real danger for elephants comes from hunters who kill them for their tusks.

ELEPHANTS



Set 2:2 ACTIVITIES

REMEMBERING - What are the facts

1. How does an elephant keep cool ?
2. How does an elephant sleep ?
3. Write 2 questions like the ones above.
   You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw pictures to show the three ways that elephants get food.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the great life of an elephant.
7. ***Comic Strip***
   Make a comic strip about an with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help elephants survive

8. ***Information Web***
   Make a list of all the elephant's physical features mentioned in the report.
   Brainstorm how these features help them to survive.
   Show your thinking as an INFORMATION WEB.

Example :  → large ears → helps it keep cool

EVALUATING - How safe is the elephant

9. ***Predator Rating—***give elephants a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

10. ***Elephants need water***
    Design some new features that would make it easier for elephants to survive when there is very little water. Think about
    - storing water
    - finding underground water
    - reusing water
    - other ways of cooling off

    Remember to include pictures and labels to explain your interesting ideas

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Leopards are mammals. They belong to the cat family.

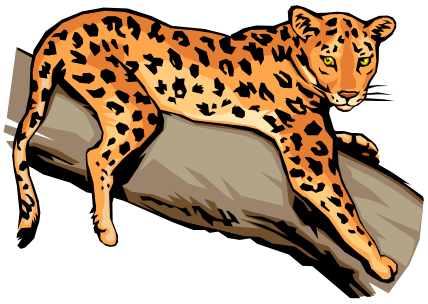
Like all big cats, they can run very fast and pounce. Their powerful front legs help them to climb trees easily. Their colour and spots make it very hard to see them in the wild. They have long sensitive whiskers to help them feel their way through the undergrowth at night when they are hunting. They can see up to six times better than people.

The leopard lives in many different places. It is the only big cat in Africa that lives in the rainforest, the grasslands, and the desert. Leopards have a territory that is about 30 sq km. They sleep during the daytime in trees.

The leopard lives alone. It spends its time checking its territory. It will spray logs and trees with urine. This tells other leopards that it belongs to them. If another leopard comes into its territory there will be a fight.

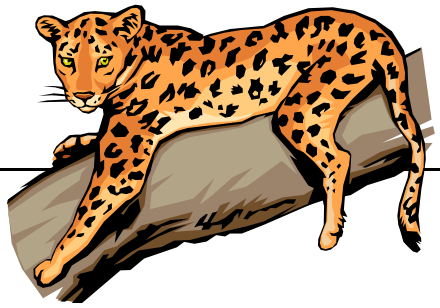
A female leopard will stop wandering when she has cubs and will live in a den. The mother has two or three cubs. She keeps them hidden in her den for the first eight weeks. They learn to hunt by pouncing on her tail. They start hunting mice and rats and then move on to bigger things. When they are about two years old, they leave their mother to find a territory of their own.

Leopards are very skilful hunters. They eat many different kinds of animals and so they are able to live in many different places. They hunt in the middle of the night. They sneak up on their prey and pounce. They kill their prey by sinking their very long teeth into the animal's neck. When it has caught and killed an animal it will sometimes drag it up a tree so that other animals can't take it off them.



People are cutting down trees to grow food and this is taking away the leopard's territory. Farmers will sometimes kill hungry leopards to protect their farm animals. Leopards are also killed by hunters for their beautiful fur.

LEOPARDS



Set 2:4 ACTIVITIES

REMEMBERING - What are the facts

1. What family does the leopard belong to ?
2. When and where do leopards sleep ?
3. Write 2 questions like the ones above.
   You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw pictures to show how a leopard hunts and kills its prey
   Include labels to explain what is happening in your drawing.

5. Use your heading and trigger words from one paragraph to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the great life of a leopard.

7. ***Comic Strip***
   Make a comic strip about a leopard with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help leopards survive

8. ***Information Web***
   Make a list of all the leopard's physical features mentioned in the report.
   Brainstorm how these features help them to survive.
   Show your thinking as an INFORMATION WEB.

Example :  → spots on their coat → good camouflage when hunting

EVALUATING - How safe is the leopard

9. ***Predator Rating—***give leopards a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

10. ***The leopard is a very successful mammal***
    Design a new predator that would make life difficult for the leopard.
    Think about the features the predator would need to catch and kill leopards.

Remember to include pictures and labels to explain your interesting ideas

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Gorillas are huge mammals. They belong to the ape family and are very clever.

Mountain gorillas have long arms and shorter legs. The male is twice as big as the female. They have thick, black shaggy hair which keeps them warm and dry when they have to sit in the cold mountain rain. When a male is fully-grown, the hair on its back turns silver grey.

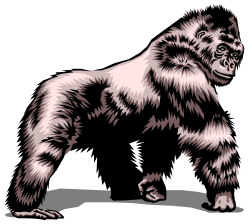
They can only be found in Africa, living high up in the mountains in misty forests. Because they are so big they spend most of their time on the ground. They have an area which they move around in during the day. At night time they stop to make nests from leaves and branches. The babies sleep in their mother's nest. All the other gorillas make their own nests.

Mountain gorillas live in family groups. These groups are made up of females and their babies, and some young males. A silverback will be in charge of the group. He will sort out any problems. He must be strong enough to fight off any other male gorilla who doesn't have a group and wants to take over.

Gorillas spend half of the day feeding. They need a lot of food every day. They are able to eat lots of different plants so there is always plenty of food. The silverback decides where the group goes each day to find food and when they will stop to rest or make nests for the evening.

Gorillas have only one baby every three or four years. This means that the baby can spend a very long time with its mother learning all the rules for being part of the group.

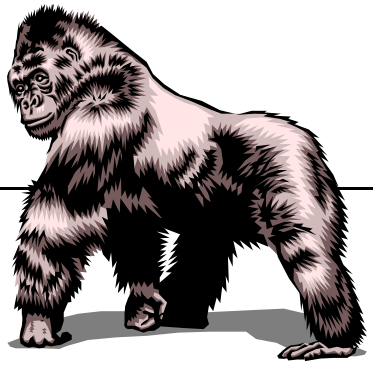
Gorillas have no natural predators. If other animals come too close to a gorilla family the silverback will stand up on his legs, beat his chest and look very angry and fierce.



If gorillas are left alone they survive easily. Because they are such amazing animals, hunters have killed many of them for trophies. Today there are only about 500 mountain gorillas left.

GORILLAS

Set 2:4 ACTIVITIES



REMEMBERING - What are the facts

1. Where do mountain gorillas live ?
2. What is a silverback ?
3. Write 2 questions like the ones above.
   You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what happens when a group of gorillas think there is danger.
   Include labels to explain what is happening in your drawing.
5. Use your heading and trigger words from one paragraph to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the great life of a mountain gorilla.
7. ***Comic Strip***
   Make a comic strip about a gorilla with speech bubbles or captions.
   Include some information from the report.

ANALYSING - Identifying the features that help gorillas survive

8. ***Information Web***
   Make a list of all the gorilla's physical features mentioned in the report.
   Brainstorm how these features help them to survive.
   Show your thinking as an INFORMATION WEB.

Example :  → thick shaggy hair → keep them dry in the rain

EVALUATING - How safe is a gorilla

9. ***Predator Rating—***give gorillas a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report and your own ideas.

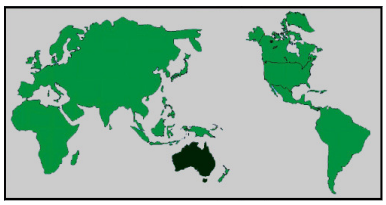
CREATING - Coming up with new ideas

10. ***Hunters are the only real threat to mountain gorillas***
    Suggest some ways that gorillas could organise themselves against the threat of hunters. Think about
    - early warning systems
    - hiding places

    Design a new super gorilla that could defend itself against men and their guns.

Remember to include pictures and labels to explain your interesting ideas

MAMMALS of AUSTRALIA



Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Mammals are animals that produce milk to feed their young. Marsupials are a special kind of mammal who bring up their babies in a pouch.

Most marsupials are found in Australia. All of Australia's native mammals are marsupials. Marsupials are able to live in lots of different habitats. Some live in burrows (wombats), some live mainly in trees (koalas), and some move around without having a home or a nest (kangaroos).

Marsupials, like all mammals, are warm blooded. This means they are able to keep their body at the same temperature no matter what the weather is like. They usually have fur to stop heat from escaping. When they are too hot they sweat which helps them cool down. Each marsupial has other physical features that help it survive.

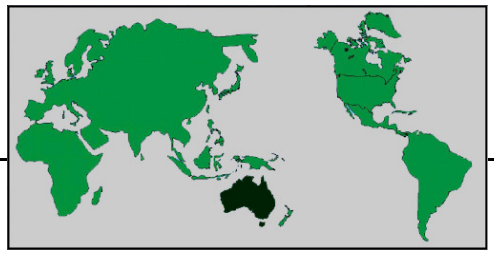
Most mammal babies grow inside the mother for many months before being born. Marsupials do this differently. The babies are born early on when they are very small, blind, and helpless. They crawl up their mother's body until they find her pouch. They find a nipple in the pouch and stay attached for weeks or sometimes months, feeding from their mother's milk. The pouch protects them until they are ready to explore the world around them.

Because they are warm-blooded, marsupials have to eat a lot. Most of their time is spent finding food. Some only eat plants (kangaroos and wombats) and some eat mostly meat (Tasmanian devils). They usually sleep or hide from predators during the day and look for food at night.

Most marsupials live alone and only worry about looking after themselves. They protect their own feeding area to make sure they have enough food to stay alive. Their brains are not as well developed as other mammals and so they don't organize themselves into fixed groups or herds. Marsupial males are not interested in the females except at mating time and they will not look after the young.

People usually think of marsupials as pests. They upset farmers by killing farm animals, by breaking down fences, or eating the food that is meant for their stock. Some are hunted for meat and for their skins. Their wild habitats have also been destroyed to make way for farms, towns, and cities. Most marsupials in Australia are now protected by laws.

MAMMALS of AUSTRALIA



Set 3:1 ACTIVITIES

REMEMBERING - What are the facts

1. How are marsupials different from other mammals ?
2. How do marsupials stop heat from escaping ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what happens when a marsupial baby is born.
   Include labels to explain what is happening in your drawing.

5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about "Marvelous Marsupials".

7. ***A day in the life of a marsupial***
   Use the information in the report to describe a day in the life of a marsupial.
   You can do this by writing a marsupial story or as a marsupial comic strip with captions.
   Try to include as many facts about marsupials as you can.

ANALYSING - Identifying the features that help marsupials survive

8. ***Information Web***
   List all the physical features of marsupials mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

   Example : **MARSUPIALS** → warm-blooded → can live in many places

CREATING - Coming up with new ideas

10. ***The Ultimate Marsupial***
    Design a new super marsupial that would have a great chance of surviving in Australia
    - Draw this new creature and label all its useful features
    - Describe its habitat and what it needs to survive
    - What does it eat and how does it get its food
    - How does it protect itself from being preyed upon by other animals and the threats of man

    Remember to include diagrams, labels, and descriptions to explain your interesting

RED KANGAROOS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Red kangaroos are the largest of the marsupials and are famous for their hop.

Their very powerful back legs work like springs. The kangaroo can hop as far as eight metres and as high as three metres. They have a long tapering tail which balances the body as they hop. They stand upright on their legs and can be as tall and as heavy as a man. They have much shorter front legs.

Red Kangaroos live in the central part of Australia which is mainly desert. They do not have a place that is home and can cover large distances in search of food. They rest in the shade of scattered trees during the day and sometimes dig holes and lie in the cool sand. They also keep cool by panting and by licking their front legs and fur.

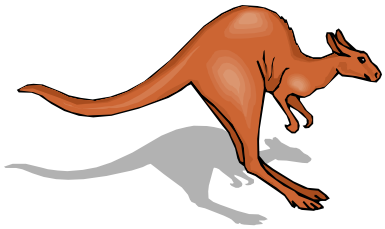
Kangaroos move around during the night eating grass and plants. When there is water they will drink it but if they get enough green food they do not need it.

Kangaroos give birth to one baby at a time. The baby spends the first three months in its mother's pouch drinking its mother's milk. After seven months the young kangaroo will leave the pouch for good, but it will still stay around its mother for some time to learn how to find food and for protection. If food is scarce, the mother's milk will dry up and the baby in the pouch will die to allow the mother to survive.

Red kangaroos move about in feeding groups called mobs. These are not fixed groups like a herd. Being part of a mob helps them to warn each other of danger. They will stamp their back feet or thump their tail and the mob will scatter in all directions. Males fight over females. The strongest males get to mate with the females. They box or wrestle each other with their front legs. They also support themselves on their tail and use their powerful back legs to kick each other.

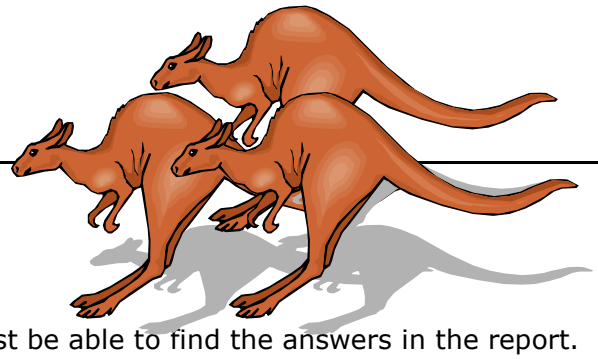
An adult kangaroo has little to fear from predators. They can easily escape because of their speed and because they can leap high in the air. They can also kill predators with one kick from their powerful legs. Large hawks and packs of hungry dingoes hunt kangaroos, but they look for a sick adult or a young kangaroo that has wandered away from its mother.

People are not usually interested in living in the desert so the red kangaroos' habitat is not in danger. Sheep farmers on the edge of the desert have made life easier for kangaroos. They provide short grass for their sheep which the kangaroos like to eat. Because of this the government has to make sure the number of kangaroos don't get out of control. They shoot between one and two million red kangaroos each year.



RED KANGAROOS

Set 3:2 ACTIVITIES



REMEMBERING - What are the facts

1. What does a kangaroo use its tail for ?
2. Where do red kangaroos live ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what happens when a group of red kangaroos think there is danger. ***Include labels to explain what is happening in your drawing.***

5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about red kangaroos
7. ***A day in the life of a red kangaroo***
   Use the information in the report to describe a day in the life of a red kangaroo.
   You can do this by writing a kangaroo story or by making a comic strip with captions.
   Try to include as many facts about red kangaroos as you can.

ANALYSING - Identifying the features that help red kangaroos survive

8. ***Information Web***
   List all the physical features of the red kangaroo mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

   Example :  → lick fur → helps to keep them cool

EVALUATING - How safe is the red kangaroo

9. ***Predator Rating***—give red kangaroos a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating***—give red kangaroos an extinction rating from 1 to 10
    1= no risk of extinction ***10 = very close to extinction***
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

11. ***Red Kangaroo Upgrade—overcoming natural threats***
    Make some improvements to the red kangaroo's physical features and the way it behaves to help it survive the following changes to its habitat.
    - A large, very fast predator is introduced to the central part of Australia
    - It gets much hotter in the desert and all the remaining trees die.

12. ***Action Plan—taking the nuisance out of red kangaroos***
    Come up with some stunning new ideas so that red kangaroos are no longer pests
    - Design some way of stopping kangaroos from eating the grass meant for sheep
    - Design another way of controlling the number of red kangaroos

Remember to include diagrams, labels, and descriptions to explain your interesting ideas

TASMANIAN DEVILS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The Tasmanian devil is a meat eating marsupial.

It is about the size of a small dog. It has thick black fur with some white markings. The devil's head is big for the size of the rest of its body. Long whiskers on its face and front legs help it to feel its way when hunting at night. It has a wide gaping mouth and lots of very sharp teeth that it shows if it feels in danger. The inside of its ears turn bright red when the animal gets upset. They are called devils because they look fierce and bad tempered and because of the spine chilling screams they make at night.

Tasmanian devils can only be found in Tasmania. They live anywhere in the bush. They will use any place they can find to hide and shelter during the day. They make dens or nests in burrows, hollow logs, or in small caves.

Devils give birth to lots of babies at one time. The mother has only four nipples in her pouch so the babies who get to the pouch first are the ones that live. They stay in the pouch attached to a nipple for about four months. Then they live in the den until they are ready to go out on their own in the bush.

Devils eat meat. They come out at night to search for food. Young devils will climb trees to catch and eat sleeping birds. Older devils are mainly scavengers. They use their good sense of smell to find dead animals. Dead sheep and cattle provide food in farming areas. They also eat animals that have been killed on the road. With their powerful jaws and strong teeth they will eat everything including bones and fur. They can eat a huge amount of food at one time.

As with most marsupials, they prefer to live by themselves and hunt alone. They do not form packs but they will often gather to feed off a large dead animal. This always results in lots of squabbling and biting.

In Tasmania there are no longer any natural predators for adult devils. Owls will hunt young devils. Large devils will eat small devils if they are hungry enough. In summer the numbers increase as the young devils come out of their nests but over half of them die in the first few months because of competition for food.

Tasmanian devils were almost wiped out by the early settlers because they thought that they killed their livestock. Today laws have been made to protect them. They do well living alongside man. They are helpful because they clean up farms and roads.

TASMANIAN DEVILS

Set 3:3 ACTIVITIES

REMEMBERING - What are the facts

1. Where are the Tasmanian devil's whiskers ?
2. Why are they called Tasmanian devils ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what a Tasmanian devil does when it feels in danger.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the Tasmanian devil.
7. ***A day in the life of a Tasmanian devil***
   Use the information in the report to describe a day in the life of a Tasmanian devil.
   You can do this by writing a Tasmanian devil story or as a comic strip with captions.
   Try to include as many facts about Tasmanian devils as you can.

ANALYSING - Identifying the features that help Tasmanian devils survive

8. ***Information Web***
   List all the physical features of the Tasmanian devil mentioned in the report.
   Brainstorm ways which these features help the animal to survive.
   Present this information as an INFORMATION WEB.

Example :  → young devils can climb trees → catch sleeping birds

EVALUATING - How safe is the Tasmanian devil

9. ***Predator Rating—***give Tasmanian devils a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report or your own ideas.
10. ***Extinction Rating—***give Tasmanian devils an extinction rating from 1 to 10
    1= no risk of extinction ***10 = very close to extinction***
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

11. ***Tasmanian Devil Upgrade—overcoming threats***
    Make some improvements to the Tasmanian devil's physical features and the way it behaves to help it survive the following changes to its habitat.
    - Dingoes (large wild dogs) are introduced to Tasmania
    - There is a huge bush fire that destroys all the native bush

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.
12. ***Action Plan—save the Tasmanian devil***
    Tasmanian devils are helpful because they clean up farms and roads.
    Design a poster, a bumper sticker, a road sign to make the people of Tasmania aware of the benefits of having Tasmanian devils in the bush.

WOMBATS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The wombat is a large, burrowing marsupial. It is the largest burrowing animal in the world.

Wombats look very cuddly. They are built especially for burrowing. The body is sturdy with a short tail and short, powerful legs. They have a thick neck and a blunt shaped head, which is used to bulldoze anything that gets in its way.

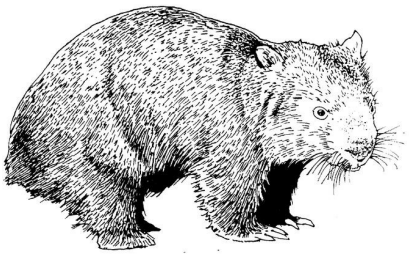
They spend over half of their life in their burrows. The burrow protects the wombat from the heat, cold, rain, bushfires, and predators. They dig their burrows in banks or the side of hills. They scrape with their sharp front claws and shove the soil backwards with their back legs, leaving a pile of earth outside. A burrow may be 30 metres long with several openings and may connect with others.

Wombats only have one baby at a time. The wombat has a backwards opening pouch that protects the very small, young wombat from flying dirt when the mother wombat is digging. The young wombat comes out of the pouch after six months. It will follow its mother around for another five to ten months before going off to find its own place to live.

Wombats eat grass, roots, and herbs. They will spend from three to eight hours a night grazing. They have special front teeth which they use for grazing. These grow all the time because they get worn down.

Wombats live alone except when breeding and raising babies. They will not share their feeding ground with any other wombats. They get rid of other wombats by snorting and by chasing them away. They mark out their area by leaving their scent and their droppings. Any new object in its feeding area is likely to be marked with the wombat's cube shaped droppings. The special cube shape means that the droppings are less likely to fall off these objects.

Wombats are not able to see very well. They use smell and hearing to avoid predators. Their natural enemies are Tasmanian devils and eagles. If threatened a wombat can move surprisingly quickly over a short distance and will dive into a nearby hollow log or burrow. The skin on its bottom is very tough and thick which protects it from bites and claws. If a predator follows a wombat into its burrow the wombat will use its bottom to trap the predator against the wall and crush its skull.



A lot of the wombat's natural habitat is being destroyed to make way for farms. Farmers consider them a pest because they damage fences and dig up crops. Many wombats are killed by cars on the roads at night.

WOMBATS

Set 3:4 ACTIVITIES

REMEMBERING - What are the facts

1. What are wombats especially built for?
2. How long is a wombats burrow?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show that you understand how the backwards opening pouch works.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem) about the wombat.
7. ***A day in the life of a wombat***
   Use the information in the report to describe a day in the life of a wombat.
   You can do this by writing a wombat story or by making a comic strip with captions.
   Try to include as many facts about wombats as you can.

ANALYSING - Identifying the features that help wombats survive

Information Web

8. List all the physical features of the wombat mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

Example :  → special teeth → grazing grass

EVALUATING - How safe is the wombat

9. ***Predator Rating—***give wombats a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating—***give wombats an extinction rating from 1 to 10
    1= no risk of extinction ***10 = very close to extinction***
    Give reasons for your rating using information from the report and your own ideas.

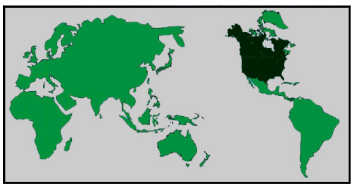
CREATING - Coming up with new ideas

11. ***Wombat Upgrade—overcoming threats***
    Make some improvements to the wombat's physical features and the way it behaves to help it survive the following changes to its habitat.
    - A large powerful digging mammal that likes the taste of wombat meat is introduced by farmers to get rid of the wombat pest
    - There are lots of floods and wombat burrows keep filling up with water

12. ***Action Plan—taking the nuisance out of wombats***
    Come up with some stunning new ideas so that wombats are no longer pests
    - Design a wombat proof fence
    - Keep wombats from damaging crops
    - Keep wombats off the road at night

Remember to include diagrams, labels, and descriptions to explain your interesting

MAMMALS of NORTH AMERICA



Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Mammal is the name given to any warm-blooded animal that has hair on its body, gives birth to live babies, and produces milk to feed its young. This group includes humans.

These physical features mean that mammals are much better equipped than other animals for survival. Mammals change the food they eat into heat which the blood carries around the body. The mammal is therefore able to keep its body at a constant temperature no matter what the surrounding weather. The hair or fur on its body helps to hold in the heat in cold weather. Many mammals also have sweat glands which cool the skin and take heat away, allowing them to live in hot places. Every species of mammal has other special physical features that help them survive.

Unlike other animals, mammals can be found in many different habitats. In North America habitats vary from snow in the north to forests and deserts further south. Some mammals live in burrows, some live in trees, while others wander freely through the wilderness. They will usually establish a home range or territory from which they will discourage other groups or members of their species.

Mammals must eat all the time because they need fuel to burn to keep up their body temperature. Some eat meat, some eat only plants, and some eat both. They have a selection of food that they eat and they have worked out ways to go about collecting it. Some species are better at doing this than others and find it easier to survive.

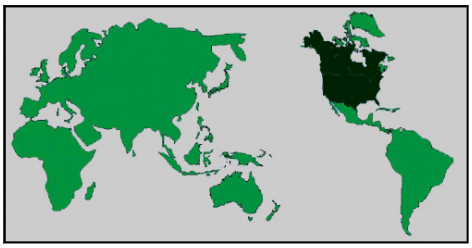
All mammal species have very strong instincts to reproduce. They have a mating season during which the males will fight over the females. In many cases only the strongest males get to mate which means that the babies born are strong and more likely to survive. If the species is small in size and easily caught by predators they usually have a greater number of babies to make sure that some survive. Most mammal babies grow inside the mother for many months. When the baby is born it is fed from mammary glands which deliver milk directly into the mouth of the young.

Most animals act on instinct but mammals have the ability to learn. They are able to recognise each other and talk to each other. Because of this many mammals live in social groups or families and have rules that must be followed. Because they are fed on their mothers' milk, young mammals have a much longer childhood than other young animals that have to find their own food. This means they have the chance to copy and learn adult behaviour.

Every species preys on other species but may also end up as food themselves. Over time, species work out how to recognise predators and avoid being eaten. Predators will often look for weak or sick animals to attack. Getting rid of these weak animals is nature's way of keeping a species fit and healthy so that it will be able to cope with changes in the future.

Mammals always compete with each other for space especially with humans. Most large mammals cannot live in the places that man creates such as cities. Natural habitats are constantly shrinking as the human population increases and man needs more space for his activities. Man has also managed to threaten many mammal species through hunting for food and sport or because the species is considered a nuisance. In some cases species have become extinct because man has introduced species into a habitat and destroyed the balance of nature.

MAMMALS of NORTH AMERICA



Set 4:1 ACTIVITIES

REMEMBERING - What are the facts

1. How does hair and fur help a mammal ?
2. Why do mammals have to eat all the time ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a diagram to show how a mammal keeps its body at a constant temperature.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about "Marvelous Mammals".
7. ***A day in the life of a mammal***
   Use the information in the report to describe a day in the life of a mammal.
   You can do this by writing a mammal story, a mammal diary, or as a comic strip with captions.
   Try to include as many facts about mammals as you can.

ANALYSING - Identifying the features that help mammals survive

8. ***Information Web***
   List all the physical features of mammals mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

   Example : **MAMMAL** → warm-blooded → can live in lots of different temperatures

CREATING - Making improvements

9. ***The Ultimate Mammal***
   Design a new super mammal that would have a great chance of surviving in the harsh winters of North America
   - Draw this new creature and label all its useful features
   - Describe how it copes with the cold and snow in winter, and the heat in summer
   - What does it eat and how does it get its food
   - How does it protect itself from being preyed upon by other animals

   Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

MOOSE

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The moose is one of the largest land mammals in North America and is a member of the deer family.

It can be very frightening close up. The male (bull) is larger than the female (cow) and the height of its shoulders can be two metres. It has a long nose and a drooping lip. The front legs are longer than the back legs which give it a humpbacked look. The moose has long, reddish brown or black hair, which is very important for survival during the extremely cold winter. Moose have excellent hearing. Their large ears are able to rotate 180 degrees. Their sense of smell is also very good which means they can find food below deep snow. Their eyesight is poor but they can detect moving objects. The male has massive shovel-shaped antlers which are flat with small prongs projecting from the edges. These are important for attracting a mate and as a sign of dominance when competing with other males at mating time.

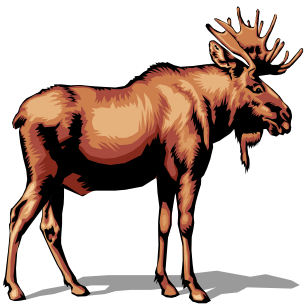
Moose are found in Alaska, Canada, and northern parts of America. They prefer to live in forests or wooded areas near lakes and rivers. Their long legs mean they can move about in snow up to 70cm deep in winter. However, if the snow is any deeper than that they get trapped and become easy prey for wolves.

In the mating season rival males will compete for females. They engage in violent battles by placing their antlers against each other and trying to push each other over. The cow has one or two calves, which will feed from her for six months. The calves can browse and follow their mother after three weeks. The young will stay with their mother for a year until a new calf is ready to be born. The young moose is then driven off by the mother to face the dangers of the wilderness by itself. Moose live for an average of 12 years in the wild.

Moose are plant eaters. Most of their time is spent eating as they need 20kg of food per day. They eat plants growing on the forest floor and use their bottom lip to strip leaves from trees. In summer water plants are their main food. They like wallowing in the deep mud along the shore or submerging themselves in water while feeding. Moose are good swimmers. They can dive to six metres in search of plants growing at the bottom of lakes. They also spend a lot of time in the water to escape sucking flies and mosquitoes. Food can be a real problem in winter and is the main threat to their survival.

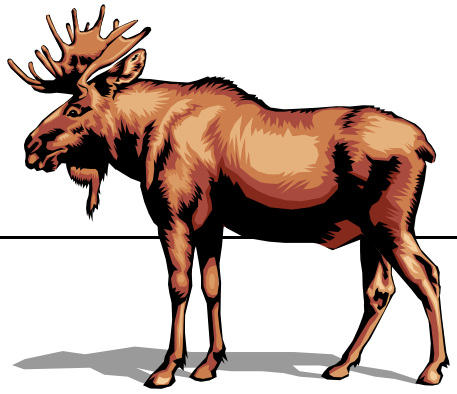
Most of the year the moose is a silent animal. They do not form herds as other deer do and usually live alone except for mating when they will gather in groups. Mothers are very aggressive and protective of their calves.

A healthy full-grown moose has little to fear from most predators. When a moose charges, it kicks forward with its very large front hooves and have been known to fight off entire wolf packs. Despite the careful attention of the mother to their calves, up to a half of all moose die in their first year from attacks by predators, drowning while trying to swim across lakes, starving to death in winter, or dying from diseases.



Moose can be quite a nuisance to man. They eat crops and young trees, stand on airfields, wander the city streets, and collide with cars and trains. They are hunted for meat and sport but are not considered a threatened or endangered species. In fact, moose populations increase very quickly unless they are limited by predators, hunters, or bad weather.

MOOSE



Set 4:2 ACTIVITIES

REMEMBERING - What are the facts

1. Why does the moose have a humpbacked look ?
2. What are the antlers used for ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show how the moose behaves in water.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of a moose.
7. ***A day in the life of a moose***
   Use the information in the report to describe a day in the life of a moose.
   You can do this by writing a moose story, a moose diary, or as a comic strip with captions.
   Try to include as many facts about moose as you can.

ANALYSING - Identifying the features that help moose survive

8. ***Information Web***
   List all the physical features of the moose mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

   Example :  → long hair → keeps it warm in extremely cold winters

EVALUATING - How safe is the moose

9. ***Predator Rating—***give moose a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report and your own ideas.

10. ***Extinction Rating—***give moose an extinction rating from 1 to 10
    1= no risk of extinction ***10 = very close to extinction***
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

11. ***Moose Upgrade—overcoming natural threats***
    Make some adaptations to the moose's physical features, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started ...
    - Better care for young moose
    - Better features for coping with deep snow
    - Improving the food supply in winter

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—taking the nuisance out of moose***
    Come up with some stunning new ideas so that moose are no longer pests.
    Think about
    - keeping moose off streets and airports
    - protecting crops and young trees from moose

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

BEAVERS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The beaver is a large North American mammal that spends a lot of its time in the water. It is the largest member of the rodent family.

Adult beavers grow to about one metre in length, not counting their tail. Their eyes are small and their ears and nostrils can be closed when they are underwater. The front feet are short and have heavy claws. These work like hands and are used for feeding, grooming, digging, and building dams and lodges. Their back legs are large and the feet are webbed for swimming. Their fur is almost waterproof. They have a large flat tail that looks like the end of a canoe paddle. They use this as a warning signal by slapping it on the water and to help with swimming. They can stay under water for 15 minutes at a time. They have large, very sharp, front teeth which they use to cut down trees up to 75cm thick.

Beavers live by rivers, streams, ponds and lakes. They are most at home in water. They can move about on land but are slow and awkward and only do so to reach nearby trees for their building projects. They are one of the few animals that change their environment in a big way to provide themselves with living space and protection. They start by building a dam across a stream using sticks, bark, mud and logs, which they cut down themselves. This floods an area of the nearby woods and creates a pond. In this pond they build a lodge, a dome shaped mound of sticks and mud, which rises above the surface of the pond. The living space is then hollowed out above the water level from the inside. The lodge has several underwater entrances. Other animals suffer from winter cold and hunger while beavers stay warm in their lodge with an underwater supply of food. They can survive for up to four months while the pond is iced up.

Beavers usually stay with one mate for life and never separate until one of them dies. Beavers breed once a year, giving birth during spring. They have a litter of between two and six. The young take to the water very quickly and are skilful swimmers after a week. Beavers have been known to live for up to 20 years.

In spring and summer beavers feed on grass, leaves, and ferns. In winter they eat bark. Their winter food is stored underwater near the lodge.

Beavers are very social animals. They work together building and repairing dams and lodges, and gathering and storing food for winter. Family groups are usually made up of two adults, several two year olds, and the young from the current year. Large lodges may have several family groups. The young beavers leave when they are two years old and have learnt all the skills they need to survive. They will often travel downstream, find a mate, and start on their own dam and lodge.

The otter is the beaver's most serious enemy although bears, hawks, bobcats, owls, and coyotes prey on beavers as well. The lodge provides the beaver with a secure shelter as many predators are unwilling to take the time to dig through the walls to get at the beavers below.

Man has been the biggest threat to beavers. The region was originally explored because of the huge demand for beaver fur. Today, people pollute the water and deforest the trees that the beavers depend on. In return, beavers create problems for man by chewing down his trees and creating floods with their dams. But the work that beavers do is very important for the environment. They create wetland habitats for other animals such as fish, turtles, frogs, birds and ducks.

BEAVERS

Set 4:3 ACTIVITIES

REMEMBERING - What are the facts

1. What do beavers use their tail for ?
2. How long can a beaver stay under water ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture to show what a beaver's lodge looks like and how it works.
   Include labels to explain what is happening in your drawing.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of a beaver.
7. ***A day in the life of a beaver***
   Use the information in the report to describe a day in the life of a beaver.
   You can do this by writing a beaver story, a beaver diary, or as a comic strip with captions.
   Try to include as many facts about beavers as you can.

ANALYSING - Identifying the features that help beavers survive

8. ***Information Web***
   List all the physical features of the beaver mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB

Example :  → webbed back → good for swimming

EVALUATING - How safe is the beaver

9. ***Predator Rating—***give beavers a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report and your own ideas.

10. ***Extinction Rating—***give beavers an extinction rating from 1 to 10
    1= no risk of extinction ***10 = very close to extinction***
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

11. ***Beaver Upgrade—overcoming natural threats***
    Make some adaptations to the beaver's physical features, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started ...
    - Improvements for dam and lodge building
    - A new improved lodge design that is more comfortable and gives better protection

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—saving beavers from human threats***
    - Make a list of the ways that human activity is endangering beavers
    - Write an action plan—the steps you would have to take to change the situation
    - Design some of the following to get your message across to the world about the importance of beavers
      - a radio, TV, or newspaper advertisement, billboard signs, bumper stickers

SKUNKS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Skunks are mammals that belong to the weasel family. They are famous for the disgusting smell they can produce when threatened.

The most common skunk, the striped skunk, is the size of a house cat. They have small heads and eyes, pointed snouts, and short legs. They are slow moving animals that are never in a hurry, moving at a deliberate waddle or a slow trot. While they seem to be fearless, in fact their eyesight, sense of smell and hearing is poor and it may just be that they are not very aware of what is going on around them. Skunks are easy to spot. They have shiny black fur with two wide, white stripes on their backs that meet at the head, and a large bushy tail. The skunk's bold colouring is like a warning to its enemies not to bother them.

Skunks are found throughout America and the southern parts of Canada. They are able to live in a wide variety of habitats including forests, farms, and even in the suburbs. They make sure they are never far from a water supply. They like to use burrows abandoned by other animals or they may dig their own. They may also use a protected place such as a hollow log, or a space beneath a building, as a den. They like a warm, dark, easily defendable site.

A skunk will give birth to a large litter of between four and seven babies. This is important because the lifespan of a skunk in the wild is only about two years. The young are weaned at six to seven weeks and then begin to hunt with the mother. They are often seen traveling in single file behind her. As with most mammal mothers, she is fiercely protective of her young.

Skunks eat a wide range of food. They travel at night looking for field mice and other small mammals. They also dig for insects, eat fruit, and any dead animals they may find which helps keep roadways and neighbourhoods clean. In autumn they eat a lot and get fat. When there is heavy snow during winter they spend more time in their dens. They get drowsy and sleep a lot but do not hibernate.

Skunks are quiet animals that don't seem to mind being around other animals and even people. Females often share territories and dens during cold weather. As many as ten skunks have been found together in some winter dens.

Despite their small size and their slow careless movements, skunks have very few natural predators. If threatened, the skunk will face its enemy, arch its tail, chatter its teeth, and stomp the ground with its front feet. The skunk will then turn around, raise its tail, and spray its terrible scent from glands at the base of its tail. It can squirt this spray for up to three metres and repeat the spray five or six times if it needs to. If this spray gets in the eyes it is very painful and can cause temporary blindness. The smell is so bad it will make the predator feel sick. Most predators have learnt to stay away. The biggest threat to a skunk is being hit by a car on the road.

Skunks are very adaptable animals often living in close proximity to man. There are reports of them entering homes through pet doors, dining with the family cat, and finding a quiet closet to spend the night. They annoy humans by getting into their rubbish while looking for food. They will also dig up their lawns looking for insects.

SKUNKS

Set 4:4 ACTIVITIES

REMEMBERING - What are the facts

1. What are skunks famous for ?
2. Why are skunks easy to spot ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture or pictures to show all the things a skunk does when it feels threatened.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of a skunk.
7. ***A day in the life of a skunk***
   Use the information in the report to describe a day in the life of a skunk.
   You can do this by writing a skunk story, a skunk diary, or as a comic strip with captions.
   Try to include as many facts about skunks as you can.

ANALYSING - Identifying the features that help skunks survive

8. ***Information Web***
   List all the physical features of the skunk mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

Example :  → bold colouring → warning to enemies

EVALUATING - How safe is the skunk

9. ***Predator Rating—***give skunks a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report or your own ideas.
10. ***Extinction Rating—***give skunks an extinction rating from 1 to 10
    1= no risk of extinction ***10 = very close to extinction***
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Coming up with new ideas

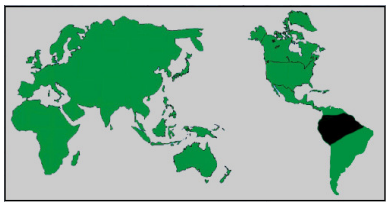
11. ***Skunk Upgrade—overcoming natural threats***
    Skunks have a lifespan of only 2 years in the wild. Make some adaptations to their physical features, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started …
    - Improvements to senses, sight, hearing, smell
    - Better features for catching small mammals at night
    - Cooperate more with other skunks

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—taking the nuisance out of skunks***
    Come up with some stunning new ideas so that skunks are no longer pests.
    Think about ….
    - Protection against skunk spray
    - Keeping skunks out of household rubbish

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

MAMMALS of the AMAZON



Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Mammal is the name given to any warm-blooded animal that has hair on its body, gives birth to live babies and produces milk to feed its young. This group includes humans.

These physical features mean that mammals are much better equipped than other animals for survival. Mammals convert the food they eat into heat which the blood carries around the body. Therefore the mammal is able to keep its body at a constant temperature no matter what the surrounding weather is like. The hair or fur on its body helps to hold in the heat in cold weather. Many mammals also have sweat glands which cool the skin and take heat away, allowing them to live in hot places. Every species of mammal has other special physical features that they have adapted over time to increase their chances of survival in their chosen habitat.

Unlike other animals, mammals can be found in many different habitats from the coldest artic ice to the hottest desert. The tropical rainforest of the Amazon is a hot, steamy jungle with a huge variety of plants and animals. Some mammals live high up in the forest canopy and others live on the forest floor. As with any habitat, mammals in the rainforest will usually establish a home range or territory which they discourage other groups or members of their species from entering.

Mammals must eat regularly because they need fuel to burn to maintain their body temperature. Each species of mammal occupies a place in the food chain. Some are meat eaters (carnivores), some eat only plants (herbivores), and some eat both (omnivores). They have a selection of food that they eat and they have established ways to go about collecting it. Some species are more efficient than others and are able to survive more easily.

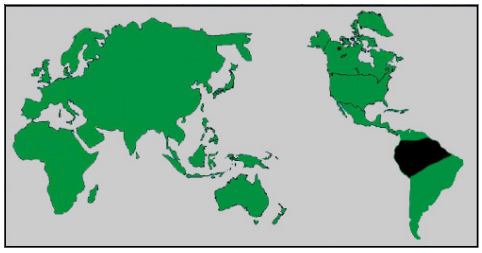
All mammal species have very strong instincts to reproduce. Each species will have a mating season during which the males will compete to mate with the females of the species. In many cases only the strongest males get to mate which ensures that the offspring produced are strong and more likely to survive. If the species is vulnerable to predators and has a short lifespan, they usually produce a greater number of off-spring than those who are larger and have less to fear. Mammals will also adapt the frequency of their pregnancies depending on the size of the population and the supply of food. In most mammals babies develop inside the mother who keeps them alive and well feed by an organ called the placenta. Once the baby is born it is fed from mammary glands which deliver milk directly into the mouth of the young.

Most animals act on instinct but mammals have the ability to learn social behaviour. Mammals can recognise each other and communicate with each other. In many cases they form social groups or families that have complicated rules which must be followed. This may include helping each other out. Because they are fed on their mothers' milk and have a long childhood, the young have the opportunity to copy and learn this adult behaviour.

Nothing is wasted in nature. Most species hunt other species and are also hunted themselves. The smaller a mammal is the more vulnerable it is to being preyed upon by larger mammals. Over time all species developed strategies to avoid being eaten by predators. Large animals may not be at risk but must protect their young because even the biggest mammals lose 50 percent of their young to predators. Predators will also single out the weaker animals. This is natures way of keeping a fit and healthy population of a species which will better adapt in future generations.

Mammals always compete with each other for space, especially with humans. Man is much more intelligent than the other mammals and is able to dominate them. This is especially the case in the Amazon rainforest which is being destroyed at an alarming rate. The people who live there are poor and selling logs from the rainforest to other countries provides them with much needed money. Clearing the land also provides land for farmers and places for people to live away from the crowded cities. However, the mammals that live in the rainforest are usually unable to live anywhere else and once the rainforest is gone they will become extinct.

MAMMALS of the AMAZON



Set 5:1 ACTIVITIES

REMEMBERING - What are the facts

1. How does hair and fur help a mammal ?
2. Why do mammals have to eat all the time ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a diagram to show how a mammal keeps its body at a constant temperature.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about "Marvelous Mammals".
7. ***A day in the life of a mammal***
   Use the information in the report to describe a day in the life of a mammal.
   You can do this by writing a mammal story, a mammal diary, or as a comic strip with captions.
   Try to include as many facts about mammals as you can.

ANALYSING - Identifying the features that help mammals survive

8. ***Information Web***
   List all the physical features of mammals mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

   Example : **MAMMAL** → warm-blooded → can live in lots of different temperatures

CREATING - Making improvements

9. ***The Ultimate Mammal***
   Design a new super mammal that would have a great chance of surviving in the canopy of the tropical rainforest in the Amazon.
   - Draw this new creature and label all its useful features
   - Describe how it copes with the hot, wet conditions high up in the forest canopy
   - What does it eat and how does it get its food
   - How does it protect itself from being preyed upon by other animals

   Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

ARMADILLOS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

Armadillos are the only mammals with shells. The nine-banded armadillo is the most common of the armadillos.

The nine-banded armadillo has long pointy ears, a long snout, and is the size of a cat or small dog. Armadillos have an excellent sense of smell and good hearing but they are almost blind and can't see colours.

The most obvious feature of this very unusual looking mammal is the joined plates that cover its back and sides which look like the armour worn by medieval knights. The armour is made of bone and consists of a large shield over the shoulders, a second shield over the rump, and nine bands in the middle. These are connected by soft skin and each band overlaps the band before it. These narrow plates give it flexibility around its middle. Its short legs and long tail are also covered with bony rings. The armour protects the armadillo from attack by predators and from sharp, thorny vegetation in the forest undergrowth.

When the armadillo is in water the heavy armour shell causes it to sink and allows the armadillo to walk across the riverbed under water. It can hold its breath for as long as six minutes. If it wants to get across a wider stretch of water the armadillo swallows air until its stomach inflates to twice its normal size. It is then buoyant enough to swim across.

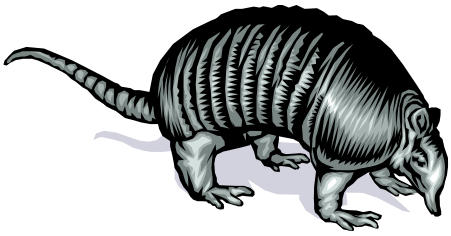
Armadillos survive best in warm conditions. They have a low body temperature with very little body hair and their armour provides little insulation against the cold. The hot tropical rainforest is ideal. They are very active burrowers who dig underground about 50cm below the surface. Their burrows may be up to ten metres in length with several entrances. They use grass, leaves, and other vegetation to create a nest or bedding area. A single armadillo may have as many as 15 different burrows in the area it lives in.

Armadillos are mainly insect eaters (insectivores). The forest floor of the rainforest provides an enormous variety of food to feed from. They make a lot of noise when foraging and can usually be seen rummaging through leaf litter for insects with their snout close to the ground. Food can be smelt up to 20cm below the surface and is dug out using their large front claws. They dig, push their nose into the loosened soil, and shoot out their long, sticky tongue to collect ants, beetles, termites, worms, and grubs. They are usually active at night and hide during the day but in cooler seasons they will forage during the warm daylight hours and return to a burrow in the evening.

Nine-banded armadillos always give birth to four identical babies. The babies are well developed at birth with their eyes open. Their skin is like soft pink leather and slowly hardens. They quickly begin to move around the burrow and after a few weeks will begin to forage for food with the mother. They are fully mature after one year. Armadillos have the ability to delay pregnancies for up to two years if the conditions are not favourable for the young. Their life span in the wild is between four to seven years.

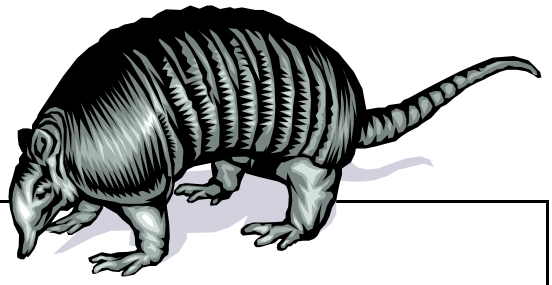
During the breeding season a male and female armadillo will share a burrow. However, for the rest of the time armadillos live alone. Any contact with another armadillo is very brief and they do not fight over territories.

Armadillos are hunted and eaten by larger mammals. When it feels threatened an armadillo will run away and find a place to hide or burrow underground with amazing speed. Once it is inside a burrow it is very hard to remove. It will present its armoured back to the opening so there is nothing to grab onto. The armour also acts as barbs that dig into the earth if a predator tries to drag it out. If an armadillo is startled by a noise it will jump a metre straight up in the air. This will surprise a predator and give the armadillo time to escape.



Armadillos are hunted by man for their meat, which is considered a delicacy, and for their decorative shell. Although their natural rainforest habitat is being destroyed, the nine-banded armadillo is able to survive in other habitats and is now very common further north of the Amazon rain forest. In fact it is now the official state mammal of Texas. Armadillos are helpful to farmers because they eat many insects that are harmful to crops.

ARMADILLOS



Set 5:2 ACTIVITIES

REMEMBERING - What are the facts

1. How big is an armadillo ?
2. What makes the armadillo different from every other mammal ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a picture or a series of pictures to show what happens when an armadillo is startled.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of an armadillo.
7. ***A day in the life of an armadillo***
   Use the information in the report to describe a day in the life of an armadillo
   You can do this by writing an armadillo story, an armadillo diary, or as a comic strip.
   Try to include as many facts about armadillos as you can.

ANALYSING - Identifying the features that help armadillos survive

8. ***Information Web***
   List all the physical features of the armadillo mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

   Example :  → armour → protection against attack by predators

EVALUATING - How safe is an armadillo

9. ***Predator Rating—***give armadillos a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating—***give armadillos an extinction rating from 1 to 10
    1= no risk of extinction ***10 = very close to extinction***
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Making improvements

11. ***Amardillo Upgrade—overcoming natural threats***
    Make some adaptations to the armadillo's physical features, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started ...
    - Better equipment for finding food
    - Better defense against larger mammal predators
    - Making better use of its ability to jump a metre straight up in the air
    - Improvements to insulation

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—saving armadillos from human threats***
    - Make a list of the ways that human activity is endangering armadillos
    - Write an action plan—the steps you would have to take to change the situation
    - Design some of the following to get your message across to the world
      - a radio, TV, or newspaper advertisement, billboard signs, bumper stickers

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

VAMPIRE BATS

Bats are the only mammals that can fly. The vampire bat is one of nearly 1,000 known bat species and is greatly feared because of stories associated with vampires.

Vampire bats are very adaptable and can live in a wide variety of warm habitats. In an undisturbed rainforest they exist in small groups of 20-100 individuals. They live in caves or hollow trees, roosting during the day by hanging upside down.

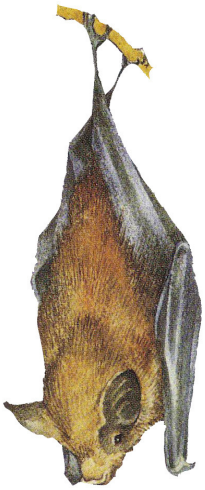
The vampire bat has one source of food, the blood of other mammals. When a bat approaches its prey it lands close to the sleeping animal, usually a larger mammal such as the tapir. The bat will walk or hop up to it then climb up and find a suitable meal site. These bats have special heat sensors in their noses to find veins that are close to the skin. They lick the site with their tongue, shave off hair, and then slice off a circular piece of skin with their razor sharp teeth. The bite is painless and rarely wakes a sleeping victim. The bat then laps up the blood that oozes from the wound. There is a chemical in the bat's saliva that keeps the blood from clotting. They may often feed for 30 minutes and drink 50 to 100 percent of their own body weight. They have expandable stomachs which become so swollen they find it hard to fly after feeding. Because blood is 80 percent water, the bats will begin urinating as soon as they start feeding to get rid of excess water.

Studies have shown that up to 30 percent of the bats in a group will not find food on a given night. They can't survive more than two days without a meal so it is common for a bat that has fed to vomit up some of its meal for an unfed bat in its group, knowing that the other bat will do the same for it on another occasion.

The body of a vampire bat is the size of a man's thumb and it has a wingspan of about 20cm. Bat wings are actually long fingers covered by thin skin. Unlike other bats, the vampire bat can run and hop along the ground. It has to be light on its feet to avoid detection when approaching its prey. It has very strong hind legs and can spring into the air from the ground without spreading its wings. Jumping is its main way of avoiding the kicking hooves and swishing tails of the large mammals it wishes to feed on. It has a clawed thumb that comes out of the front edge of the wing, which is used for climbing around on its prey.

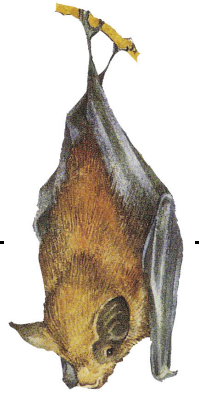
The mother usually gives birth to only one baby bat after a gestation period of seven months. The newborn bat is well developed and its eyes are open at birth. It is fed milk by its mother for two months and then begins to feed on blood that the mother regurgitates. When they are four months old they go hunting with the mother. The life span of a vampire bat is at least 12 years in the wild.

Vampire bats are very social animals. They will belong to a group of about 20 females and their young, protected by a lone adult male. Young females usually stay with their mother when they reach maturity which means that many of the group will be related. They recognise each other and greet each other when returning from feeding. When they are roosting they cling together in a tight cluster. They spend most of the day grooming each other which helps to create a strong social bond, and keeps them clean. The group stays together over a long period of time. Some females have been observed roosting together for 12 years.



Man is rapidly destroying the rainforest, the natural habitat of the vampire bat, and the land is now being used to raise cattle. This is providing the vampire bat with an unlimited food supply. As a result vampire bat populations have increased enormously. Groups of up to 2,000 are now found near herds of cattle and horses. Farmers attempt to control them because large numbers of vampire bats stress cattle and they can carry diseases that affect cattle and humans. Unfortunately, methods such as dynamiting caves mean that millions of harmless bats are often destroyed at the same time.

VAMPIRE BATS



Set 5:3 ACTIVITIES

REMEMBERING - What are the facts

1. Where do vampire bats live ?
2. What percentage of bats find food each night ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw a series of pictures or a flow chart to show what happens when a vampire bat feeds.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of a vampire bat.
7. ***A day in the life of a vampire bat***
   Use the information in the report to describe a day in the life of a vampire bat
   You can do this by writing a vampire bat story, a vampire bat diary, or as a comic strip.
   Try to include as many facts about vampire bats as you can.

ANALYSING - Identifying the features that help vampire bats survive

8. ***Information Web***
   List all the physical features of the vampire bat mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

   Example :  → heat sensor in the nose → can find veins close to the skin

EVALUATING - How safe is a vampire bat

9. ***Predator Rating—***give vampire bats a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating—***give vampire bats an extinction rating from 1 to 10
    1= no risk of extinction ***10 = very close to extinction***
    Give reasons for your rating using information from the report andyour own ideas.

CREATING - Making improvements

11. ***Vampire Bat Upgrade—overcoming natural threats.***
    Make some adaptations to the vampire bat's physical features, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started ...
    - Improving the food supply to make sure everyone gets fed every night
    - Some additional equipment to make feeding easier
    - A better deal for male bats—what happens to them?

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—saving vampire bats from human threats***
    - Make a list of the ways that human activity is endangering vampire bats
    - Write an action plan - the steps you would have to take to change the situation
    - Design some of the following to get your message across to the world
      - a radio, TV, or newspaper advertisement, billboard signs, bumper stickers

SLOTHS

Headings and Trigger words
Use this column to write down a heading and trigger words to summarise each paragraph.

The sloth is a tree dweller and is considered to be the slowest moving of all mammals.

A sloth is about the size of a domestic cat but there is very little similarity to any other animal. They have a small rounded head, big eyes, inconspicuous ears, a flattened face, and long gangly legs. Most mammals have seven neck bones. Three toed sloths have nine. This allows them to turn their head through a 270-degree arc which is very alarming to see. Their long limbs and feet are specially designed for their treetop life style. Their toes have long curved claws which are perfect for hanging upside down from tree branches. They also walk upside down along branches and vines using these hook-like feet. Their feet are completely useless for standing on therefore they are helpless on the ground. They are only able to drag themselves along with their claws.

Their habitat is high up in the forest canopy of the tropical rainforest of the Amazon basin in South America. They spend most of their time sunning, sleeping, or feeding on leaves. They are very hard to see because they move so rarely. When they do, it is very slowly with a deliberate action, almost as if they were in slow motion. It can take them a day to move from one tree to another. They prefer trees with plenty of thin overlapping branches or vines which enable them to transfer from tree to tree. The only time they will come down to earth is to defecate and urinate every six to eight days.

Three-toed sloths eat only leaves. Their senses of sight and hearing are not very well developed so they forage using their sense of smell and touch. They hook nearby branches with their claws and pull them over to nibble on. Because they are so very slow and non-competitive they usually eat the worst leaves in the forest which have a high cellulose content and are difficult to digest. The sloth have a specially adapted stomach to cope with this but the rate of digestion is still very slow. It can take several days for the food to be passed through the gut and broken down. Although the sloth is a mammal and is warm blooded, it also depends on thermoregulation to maintain its body temperature, using the sun to warm up and moving into the shade to cool down. When the sloth's temperature drops the digestion rate slows down even further. During the rainy season when sloths are under the cover of leaves to stay dry, they have been known to starve to death even though their bellies are full with food. The sloth’s inactivity and slow, lethargic movements are the result of its low energy diet and helps to conserve the little energy they do get.

Sloths avoid any behaviour that would attract attention to themselves because once spotted by a predator, they have few defences. Their slow and deliberate style of moving helps them avoid detection by large birds of prey such as hawks and harpy eagles who rely on prey moving against a background. Each hair on the sloth’s body has a very small groove where algae grow. The green colouration that results also makes them very difficult to spot. They spend most of their time at the top of trees on thin branches out of reach of most ground based or tree climbing predators such as jaguars, ocelots, boas, and anacondas. Obviously they cannot rely on speed to escape but can do severe damage with a swipe of their claws.

Sloth mothers give birth to one baby, once a year, after a six-month pregnancy. As with everything else, they give birth hanging upside down from a tree branch. The young sloth is weaned from milk after about six weeks but will continue to ride on its mother for another five months. During this time the young sloth learns from its mother which leaves are to be eaten and where to find shelter. Until six months old, the young sloth keeps at least one foot on its mother at all times while reaching for leaves to eat. Eventually the mother just moves away and keeps on going to another part of her home range. Sloths live for 10-20 years in the wild.

Sloths are not social animals. They are rarely seen with other sloths and they communicate very little with one another. Their main vocalizations are whistle-like sounds.

Sloths are obviously very dependant on their rainforest habitat for survival. Deforestation by man is severely endangering the species.

SLOTHS

Set 5:4 ACTIVITIES

REMEMBERING - What are the facts

1. How is the sloth able to turn its head 270 degrees ?
2. What do sloths spend most of their time doing ?
3. Write 4 questions like the ones above. You must be able to find the answers in the report.

UNDERSTANDING - Show that you understand the information

4. Draw pictures or diagrams to show how a sloth can die of starvation with its belly full.
   Include labels to explain what is happening in your drawings.
5. Use just your heading and trigger words from one paragraph in the report to rewrite the paragraph in your own words. If you have time, have a go at another one.

APPLYING - Using the information in another way

6. ***Poetry***
   Write an acrostic poem (or any other kind of poem or rap) about the life of a sloth
7. ***A day in the life of a sloth***
   Use the information in the report to describe a day in the life of a sloth.
   You can do this by writing a sloth story, a sloth diary, or as a comic strip with captions.
   Try to include as many facts about sloths as you can.

ANALYSING - Identifying the features that help sloths survive

8. ***Information Web***
   List all the physical features of the sloth mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

Example :  → moves slowly → can't be seen by hawks

EVALUATING - How safe is a sloth

9. ***Predator Rating—***give sloths a predator rating from 1 to 10
   1 = no danger from predators ***10 = very high danger from predators***
   Give reasons for your rating using information from the report or your own ideas.

10. ***Extinction Rating—***give sloths an extinction rating from 1 to 10
    1= no risk of extinction ***10 = very close to extinction***
    Give reasons for your rating using information from the report and your own ideas.

CREATING - Making improvements

11. ***Sloth Upgrade—overcoming natural threats***
    Make some adaptations to the sloth's physical features, or the way they behave, to make them more competitive in nature.
    Here are some ideas to get you started ...
    - Solve the problem of a slow digestion rate when there is no sun
    - Provide a better defense against hawks and harpy eagles
    - Avoid having to come down to earth

    Remember to include diagrams, labels, and descriptions to explain your interesting ideas.

12. ***Action Plan—saving sloths from human threats***
    - Make a list of the ways that human activity is endangering sloths
    - Write an action plan—the steps you would have to take to change the situation
    - Design some of the following to get your message across to the world
      - a radio, TV, or newspaper advertisement, billboard signs, bumper stickers

LEARNING OUTCOMES IN SCIENCE and ENGLISH

Reading across the Curriculum 1: Mammals is the first in a series of resources designed to help teachers teach comprehension strategies and to integrate their reading instruction into other curriculum areas; providing the opportunity to combine skills instruction with the exploration of worthwhile content. This resource consists of ***20 information reports*** on mammals across a wide spread of reading ages, which allow the whole class to be involved in a scientific investigation as part of the instructional reading programme.

Learning Outcomes in Science

The question underlying the investigation of mammals is

"What are the features of these animals that help them to survive?"

This investigating question promotes a much higher level of thinking than the customary "find out about a mammal" research task.

Big Ideas underlying the content

- Animals have different structural, physiological, and behavioural features that help them survive
- Some features are visible and can be easily observed. Others are internal.
- Species become endangered or extinct for a variety of reasons.
- Usually extinction results from the inability of a species to survive environmental change or changes in the factors that stabilise their population.
- A relationship exists between the physical features of a mammal and how the mammals features enable it to survive

Students are encouraged to

- Identify the physical features of a species - how they help the mammal survive
- Assess the animal's weaknesses
- Identify factors that will threaten or endanger the species
- Look for solutions - how might the species overcome the problem - future adaptations

Learning Outcomes in English - Report Writing

The texts for instructional reading provide strong models of the information report genre. The logical progression for students having explored the structure and language features of the information report during reading instruction, is to have a go at writing their own.

The summarising of information during the comprehension strategy instruction (Step 3 of "The 3 Steps") develops the note taking skills required for individual research, moving students away from a cut and paste mentality.

Purpose of the Information Report

- To record, organise and store factual information on a topic
- To define, classify, and describe the phenomena of our world

Text Structure

- Introduction - a general classification and / or a general statement
- Body of the report - a series of paragraphs about various aspects of the subject
  Reports in this resource cover the following - physical features, habitat, feeding behaviour, social behaviour, reproduction, predators, man and mammals
  (NB: Set 1 does not include all of these)
- Information Reports do not have an ending or conclusion

Language Features

- Written in the timeless present tense
- Descriptive language but factual and precise rather than imaginative
- Contains technical vocabulary
- Style is formal and objective - author doesn't express opinions or arguments

Oral Language

The instructional reading process outlined also provide huge opportunities for the development of oral language skills.

COMPREHENSION STRATEGY INSTRUCTION—What is it?

A 'good reader' needs to develop a wide range of skills and strategies. Learning to decode marks on a page and recognize an extensive list of words is the first step. Many children can do this fluently and yet do not demonstrate much understanding of the material they have just read. They are under the misconception that a good reader is a fast reader. The reality is that fast reading can be achieved without any processing of text or construction of meaning, taking place.

A good reader is a reader who

- Understands that reading is about constructing meaning not just consuming text
- Understands that this is a very active process involving a mental dialogue with the author and their own prior knowledge and personal experience
- Varies the speed of reading depending on the monitoring of that process

A good reader is like a detective, taking time to look for clues, making sure that they get the facts right, and always thinking about the information; looking for the big picture.

Research into how the construction of meaning (comprehension) takes place has uncovered the following

- It is a very complex process
- There are a number of interdependent strategies used
- These strategies are employed at an automated level in a split second

Quality comprehension instruction recognises this and slows down the reading process, insisting on careful clarification of meaning, attention to how the text is structured, and providing for the explicit, direct instruction of these strategies to solve comprehension problems.

It focuses on developing the metacognition of the reader, making them aware of the thinking (or processing) that is going on in their head, teaching them how to think (or process) if it is not happening, and how to get this internal monologue really sharp through 'thinking aloud'.

"The goal with comprehension strategy instruction … is to teach students to take over their own reading and thinking. When teachers and students read texts together, the teacher is not asking questions but rather participating in a real conversation. The students make predictions, talk about the questions that occur to them as they read, report the images they get during reading, discuss parts of the text that are hard to understand, and generate interpretations, including summary interpretations. After the early stages of comprehension strategies instruction-that is after the teacher is no longer introducing the strategies– the teacher's role in the conversation is limited to prompting students to be active in deciding how they might process the text at this point." (Pressley, 2006)

Pressley, M (2006) *Reading Instruction that Works:The case for balanced teaching*. New York: Guilford Press.

COMPREHENSION STRATEGIES—What are they?

For the purposes of this resource, comprehension strategies have been grouped into two categories.

1. ACTIVE READING strategies

These occur at the time of reading and are fundamental to the concept of "***digging around in the text for clues to make sure we have got the meaning right"*** emphasising the role of the reader as an active rather than a passive participant in the reading process.

As they occur during the meaning making stage they are considered to be **SENTENCE LEVEL COMPREHENSION STRATEGIES** as they are occurring at the sentence level.

These strategies are listed on the next page and are representative of the findings from current reading research on comprehension. In reality, as they occur in the head of the reader, they are all very interdependent and intertwined with each other.

The approach suggested here is to explain, model and practice each one individually and then guide the student through integrating them and acknowledging their use through "thinking aloud" in a guided reading group.

The speed that these strategies will be acquired will depend on the individual learner. Some students already do this very intuitively and pick up the metacognition very quickly. Other will take a considerable amount of time.

This explicit instruction and practice of these strategies occurs during **STEP 2** of **"The 3 Steps"**

2. PROCESSING INFORMATION strategies

These occur after reading in the sense that they are reflective strategies aimed at constructing the big picture from the text and therefore are **TEXT LEVEL COMPREHENSION STRATEGIES.**

To transfer information from short term memory it is important to do something with it, hence the notion of "***use it or lose it"***.

IDENTIFYING TEXT STRUCTURE

Research tells us that good readers make use of text structure to organise and make sense out of ideas in text.

Narrative Text

There are immediate comprehension gains for readers who are introduced to story webbing or story grammar. For further details on teaching text structure in narrative text see the "Short Stories" series by Handy Resources.

Non Fiction—Information reports

The text structure in transactional or non fiction text is not as evident as in narrative text where there is a plot to hang information on. The information reports in this resource are a good starting point because the text is factual and clearly divided into subtopics for each paragraph.

STEP 3 of the Guided Silent Reading process involves summarising chunks of information by deciding on a heading and reducing the ideas to trigger words, thereby creating a text structure.

BLOOM'S TAXONOMY FOLLOW UP ACTIVITIES

These are activities designed for students to work at independently after a reading session has been completed. The higher levels require in depth processing of the text and develop critical and creative thinking— important comprehension strategies.

COMPREHENSION STRATEGIES TO BE TAUGHT

During Guided Reading the teacher models and students practise the comprehension strategies by "Thinking Aloud"

ACTIVE READING *"Digging around for clues"*

Developing Sentence Level Comprehension

Step 2

Making connections to prior knowledge
Good readers make connections between what they are reading and their own prior knowledge and personal experience. This helps them build their own interpretation of the information or story.

"I read about that in an encyclopaedia. It said..."
"That has happened to me. Last week I..."
"I know about that because…"

Visualising the action
Good readers play back the action in their heads to help them understand what is happening.
Good readers look for descriptive words in the text and allow them to paint pictures in their heads.

"I have a picture in my head of how that looks…"
"I can see how that works. It goes like this…"
"I have a good picture of that character. He has.…"

Making connections to something else in the text
Good readers gather clues and make connections between pieces of information (reading between the lines) to fill in the gaps.

"It said in the last paragraph that …..."
"I think it means … because it said…"

Asking questions - wondering
Good readers are always looking for clues as they are reading - posing questions, talking to themselves about the unfolding of information or the story and about significant language features.

"I wonder what that looks like?"
"I don't understand what that means?"
"I wonder what will happen next?"

Forming and revising hypotheses
Good readers use their inferences to form hypotheses or expectations about information (non fiction) or where the story is heading (narrative). They are always weighing up the evidence and are quick to revise a hypothesis if there is new information.

"I think it must live all by itself because…."
"I think it has a very short life span…"
"I think this is not going to work out because…"

PROCESSING INFORMATION *"Use it or lose it"*

Developing Text Level Comprehension

Step 3

Identifying text structure
Good readers look for headings and trigger words to summarise information (non fiction)

"Look for text structure as you read.
Decide on a heading for this paragraph and trigger words to remind you of the main ideas (non fiction)

Good readers use what they know about text structure to hang the story on as they read it (narrative)

"What can we add to our story web?" (narrative)
ie problem, response, action, outcome"

Independent Follow up Activities

Applying (Bloom's Level 3)
Good readers are able to present information found in the text in a new way

Follow up Activities
See examples in Handy Resources

Analysing (Bloom's Level 4)
Good readers can take the text apart and put it back together in a way that has meaning to them

Follow up Activities
See examples in Handy Resources

Evaluating (Bloom's Level 5)
Good readers can make judgments about the text based on their understanding of the genre

Follow up Activities
See examples in Handy Resources

Creating (Bloom's Level 6)
Good readers can generate new solutions to the problems, ideas or issues that have been raised in the text

Follow up Activities
See examples in Handy Resources

See pages 51 and 52 for "The Big Picture—Where comprehension strategies fit into Reading Instruction".

THE BIG PICTURE — Where comprehension strategies fit into

EMERGENT READING STAGE → **EARLY**

Learning the Code →

Making Meaning →

Thinking Critically →

The Reading Process

1. Recognising words ie. decoding the letters to get the words →
2. Looking up those words in a mental dictionary →

Bottlenecks to Comprehension

Decoding → Vocabulary →

Decoding Strategies

Strategies to be taught

1. Phonics or phonological awareness
2. Word structure
   - Compounding
   - Affixing
   - Syllabification
3. The processing strategies
   - Attending and searching
   - Predicting
   - Cross-checking and Confirming
   - Self-correcting

1. Use the context
2. Use prior knowledge
3. Look for known words within words
4. Dictionary look up

Teaching Approaches

1. Direct Instruction
- Phonics (first 2 years at school)
- Word structure
- Decoding Strategies
  "Three Searchlights"
  "Word Detective"

2. Practice in context
- Guided Reading - practice of all the above

1. Direct instruction
- vocabulary strategies

2. Practice in context
- Guided Reading and Guided Silent Reading

reading instruction

READING STAGE → **FLUENT READING STAGE**

3. Processing those words in linguistic chunks so that the meaning of the sentence is clear

4. Organising the linguistic information from successive sentences into a structure that can be remembered

Sentence Level Comprehension

Text Level Comprehension

Comprehension Strategies

Active Reading
"Digging around for clues"

1. Making connections to prior knowledge
2. Making connections to information in the text
3. Visualising the action
4. Asking questions
5. Forming and hypotheses
6. Revising hypotheses

Processing Information
"Use it or lose it"

1. Identifying text structure
   - Narrative Text—Story Webs
   - Non fiction Text– Heading Trigger words
2. Bloom's Thinking Skills
   - Applying
   - Analysing
   - Evaluating
   - Creating

1. Direct Instruction
- Explicit teaching and modelling of the comprehension strategies

2. Practice in context "The 3 Steps"
- Guided Silent Reading - ***Step 2***
  - Detailed Retelling

1. Direct Instruction
- Explicit teaching and modelling of
  - text structure
  - Bloom's thinking skills

2. Practice in context "The 3 Steps"
- Guided Silent Reading - ***Step 3***
  - Add to Story Web - Narrative
  - Heading and trigger words - Non fiction

3. Follow up Activities

Adapted from Tom Nicholson's "The Reading Process"

Lesson Format for Comprehension Strategy Instruction

The Three Steps provides a systematic, structured process for the teaching and practicing of comprehension strategies. As such it is highly predictable for the teacher and the students, allowing the learner to 'get control of the bits and then put them all together. In the early stages it may take 20 minutes to complete two paragraphs of text as routines are established. In time, the quantity of text processed increases and the learners are able to take much more responsibility for constructing meaning as they become more fluent.

Handy Resources Information Reports

The information on page 3 and the charts on pages 55-57 provide some outlines to this Guided Reading process. The following is a much more in-depth look.

For each paragraph follow the three steps

Step 1: Set a Purpose - "Think of a heading while you are reading."
This provides a focus for active reading of text rather than just churning through the passage.

Read the chunk of text silently

Provide a copy of the Step 2 chart (page 56) which the students can use to mask the rest of the passage to prevent them reading on.
Fast finishers can start recording their choice of a heading and trigger words in the margin while waiting for slower readers to complete the silent reading.

Step 2: Detailed Retelling (Sentence Level Comprehension strategies)

This is the most complex part of the process and these routines will need to be developed over time. Use your professional judgment to work at the level that the students are ready for. ***Keep modeling the mental processing by thinking aloud.***

Initial routine

Students can : 1. Read out "the next bit of information"
2. Use "I think that means" to put information in own words

Detailed retelling involves locating the first piece of information (it may be a sentence or part of a sentence—rarely more than a sentence), reading it out and then attempting to put in your own words starting with "I think this means…" Initially this may not produce much variation from the actual text. It does, however, quickly reveal whether the student has correctly interpreted the piece of information. If the response is weak, then the teacher models a better response and then calls on someone else to process 'the next piece of information". This is very different from the traditional response which is to ask a clarifying question. You are trying to move away from this approach where the student relies on you unpacking the text with your questioning. Initially there may be significant pauses because of the thinking that is required—a good sign.
Keep the momentum going as you need to keep everyone engaged. When it gets bogged down step in and model the internal dialogue—get it back on track.

Second Phase

Students can : Continue to do 1 and 2
3. Use a targeted strategy in isolation

Once the students are comfortable with this routine you can start to introduce the strategies (see chart on page 56). The suggestion is to introduce one at a time and give as much practice as is needed before introducing another one.
"Making a connection to something you know" is usually the easiest one to start with.
Of course the piece of information may not lend itself to connections to prior knowledge in which case you just move on to the next piece of information.
The student should still start with "I think that means…"

Step 2: Detailed Retelling continued

Third Phase

Student can : Continue to do 1 and 2
4. Select from all the strategies as appropriate
5. Identify the strategy they have used

Once all five strategies have been introduced and a reasonable level of fluency has been attained you can move on to this third phase where the student can use any of the strategies as they think aloud about the piece of information they are processing. Once they have finished their turn, or during their thinking aloud, they can indicate the strategies they are using.

Additional scaffolding you can use to get students started

1. Teacher models; student has a go at the same piece of information
   They have the security of having heard what you have said and can just repeat that or add a bit of their own thinking to it.
2. Student has a go but is weak (or the message is not right); Teacher models a better response from the same piece of information
   This is always the preferred response from the teacher rather than engaging in questioning during Step 2.
3. Teacher models every 2nd piece of information, then every third piece, gradually withdraws as the group members become more confident and understand the routine.

Step 3: Decide on a Heading (Text Level Comprehension strategies)

Students can : Justify a choice of heading
Agree on a heading

A list of headings is provided (Chart page 57). Students choose the one that best summarises the information in the paragraph that has just been processed. Encourage "thinking aloud" to justify choices. This is where you can do some questioning to clarify ideas and clear up misconceptions.

Identify Trigger Words

Students can : Reduce pieces of information down to trigger words

A trigger word is a word that will trigger off recall of that piece of information. Encourage students to reduce information down to the bare minimum—a very useful skill for gathering research information, moving the learner away from a cut and paste mentality.

To introduce this routine start by reading out each piece of information and asking the group for a trigger word(s).

Discuss as a group

Record individually

Eventually the group will be able to do this processing individually and come up with their own lists.

Cover the text and take turns at retelling using Trigger Words only

This is the test of how well they have processed the paragraph and how carefully they have selected trigger words.

Do this in pairs to speed up the process.

Move on to the next paragraph

CHARTS FOR TEACHING THE THREE STEPS

The following charts are designed to be used with the group during reading instruction.

CHART 1 Page 55
Provide a laminated copy of this chart for each student to use during the initial phase of Comprehension Strategy Instruction.
Purpose:
A constant visual reminder of the Three Steps.
A screen to cover the next chunk of text (discourages reading on)
A marker to help students find and keep the place during detailed retelling
A screen for buddy retelling when students are supposed to be using headings and trigger words to retell, not the original text.

CHART 2 Page 56
This is an expanded version of CHART 1 including all the comprehension strategies. Use this once the initial "I think that means…" phase is well established.
Continue to use as text marker and text screen

CHART 3 Page 57
An outline of the Three Steps process to use as a whole class reminder (enlarge to A3)

THE THREE STEPS

STEP 1 : Read Silently
Think about a heading

CLASSIFICATION
Where the mammal fits in the living world

REPRODUCTION
How the mammal reproduces

PREDATORS
Who eats the mammal

SOCIAL BEHAVIOUR
How the mammal behaves towards other members of its species

MAN AND MAMMALS
How the mammal gets on with man

HABITAT
Where the mammal lives

FEEDING BEHAVIOUR
How the mammal gets food

PHYSICAL FEATURES
Features of the mammal's body

STEP 2 : Detailed Retelling

Start with **"I think that means . . . . ."**
Check whether you understand the message by putting it in your own words

STEP 3 : Decide on a Heading

Look for Trigger words

With a buddy try to retell the paragraph using only your heading and your trigger words

THE THREE STEPS

STEP 1 : Read Silently
Think about a heading

CLASSIFICATION
Where the mammal fits in the living world

REPRODUCTION
How the mammal reproduces

PREDATORS
Who eats the mammal

SOCIAL BEHAVIOUR
How the mammal behaves towards other members of its species

MAN AND MAMMALS
How the mammal gets on with man

HABITAT
Where the mammal lives

FEEDING BEHAVIOUR
How the mammal gets food

PHYSICAL FEATURES
Features of the mammal's body

STEP 2 : Detailed Retelling

Start with

"I think that means . . . . ."
Check whether you understand the message by putting it in your own words

Use COMPREHENSION STRATEGIES to overcome roadblocks

1. Make a connection to something you know
"I know that because . . . "

2. Visualise what the words are saying
"I have a picture in my head of . . . "

3. Make a connection to something else in the text
"In the last paragraph it said that . . . "

4. Ask questions about the information
"I wonder why . . . ?"

5. Form an hypothesis about what is going on
"I think this is because . . . "

STEP 3 : Decide on a Heading

Look for Trigger words

With a buddy try to retell the paragraph using only your heading and your trigger words

Good Readers are
READING DETECTIVES

They are always . . .

- **Looking for clues**
- **Making sure they get the facts right**
- **Thinking about the information**

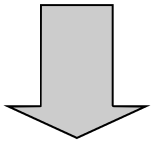
Be a Reading Detective Today

We are learning to read non fiction text using

THE THREE STEPS

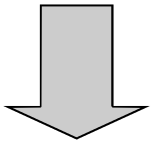
1. Set a Purpose
Read Silently

"Knowing what to look for"



2. Detailed Retelling

"Making sure we have got the message right"



3. Decide on a Heading
Look for Trigger Words

"Summarising new information we have found"

Sample Activity: Information Web

ANALYSING - Identifying the features that help wombats survive

Information Web

List all the physical features and behaviours of the wombat mentioned in the report and brainstorm ways which these help the animal to survive. Present this information as an INFORMATION WEB.

MAKING SMALL GROUP INSTRUCTION HAPPEN—Suggestions for classroom organisation

Option 1—Starting out

This option involves a five day cycle with the teacher seeing 2 groups a day for 20 minutes each—a reasonable amount of time for intensive comprehension instruction using "The Three Steps". The information report can be broken into two or more parts and the group will cover 2-3 paragraphs per session.

Contact for all students every second day is important for developing fluency with the 3 steps process and allows for careful scaffolding of the activities.

Spend time teaching the activities so that the work is of a high standard and demonstrates the higher level thinking that is required.
Allow time somewhere else in your programme for the presentation of work to an audience (very motivating for the students).
Note the allocation of time for a personal reading programme—the opportunity to practice the strategies you are teaching at a recreational level. As this is a non fiction programme it is a good idea to encourage non fiction text reading during this time which could involve a self directed research project with the presentation of findings and hence some accountability. However there is nothing wrong with some of this time being purely for reading without a work outcome.

10 Min: Shared Reading—whole class instruction (a chance to review strategies with the whole class using blown up material)

40 Min: Guided Silent Reading—small group instruction programme (see timetable)

10 Min: Wrap up-sharing successes

	Day 1		Day 2		Day 3		Day 4		Day 5	
	First 20 mins	Second 20 min	First 20 mins	Second 20 min	First 20 mins	Second 20 min	First 20 mins	Second 20 min	First 20 mins	Second 20 min
Group 1 RA 7-8	GSR with Teacher "Dolphins" Part 1	Bloom's Activities Levels 1 and 2 "Dolphins"	Bloom's Activities Levels 1 and 2 "Dolphins " contd	Personal Reading programme	Spelling Activity	GSR with Teacher "Dolphins" Part 2	Bloom's Activities Higher levels "Dolphins"	Bloom's Activities Higher levels "Dolphins" contd	Personal Reading programme	Spelling Activity
Group 2 RA 8-9	Independent brainstorm of prior knowledge about Elephants	GSR with Teacher "Elephants" Part 1	Bloom's Activities Levels 1 and 2 "Elephants"	Bloom's Activities Levels 1 and 2 "Elephants" contd	Personal Reading programme	Spelling Activity	GSR with Teacher "Elephants" Part 2	Bloom's Activities Higher levels "Elephants"	Bloom's Activities Higher levels "Elephants" contd	Personal Reading programme
Group 3 RA 9-10	Personal Reading programme	Independent brainstorm of prior knowledge about Wombats	GSR with Teacher "Wombats" Part 1	Bloom's Activities Levels 1 and 2 "Wombats"	Bloom's Activities Levels 1 and 2 "Wombats" contd	Personal Reading programme	Spelling Activity	GSR with Teacher "Wombats" Part 2	Bloom's Activities Higher levels "Wombats"	Bloom's Activities Higher levels "Wombats" contd
Group 4 RA 10-12	Bloom's Activities Higher levels	Personal Reading programme	Independent brainstorm of prior knowledge about Beavers	GSR with Teacher "Beavers" Part 1	Bloom's Activities Levels 1 and 2 "Beavers"	Bloom's Activities Levels 1 and 2 "Beavers" contd	Personal Reading programme	Spelling Activity	GSR with Teacher "Beavers" Part 2	Bloom's Activities Higher levels "Beavers"
Group 5 RA 12-14	Bloom's Activities Higher levels	Bloom's Activities Higher levels contd	Personal Reading programme	Independent brainstorm of prior knowledge about Sloths	GSR with Teacher "Sloths" Part 1	Bloom's Activities Levels 1 and 2 "Sloths"	Bloom's Activities Levels 1 and 2 "Sloths" contd	Personal Reading programme	Spelling Activity	GSR with Teacher "Sloths" Part 2

Option 2: Later on

As the routines become more established and the students become fluent with the 3 steps and the comprehension strategies, you may wish to change the classroom organisation. Here is a suggestion. The lowest reading group will benefit from daily contact even though this is for a shortened time (10 mins). The other groups can meet for 30 mins on a four day cycle. As the processing of information speeds up, this may be enough time to process the complete information report and set up the independent work activities. If not, then continue to divide the report into 2 and do it in two sittings. It is better to take longer and do it properly than to rush through it and perpetrate superficial reading strategies.

10 Min: Shared Reading—whole class instruction (a chance to review strategies with the whole class using blown up material)

40 Min: Guided Silent Reading—small group instruction programme (see timetable)

10 Min: Wrap up-sharing successes

	Day 1		Day 2		Day 3		Day 4	
	First 10 mins	Second 30 min	First 10 mins	Second 30 min	First 10 mins	Second 30 min	First 10 mins	Second 30 min
Group 1 RA 7-8	GSR with Teacher Sea Otters Part 1	Bloom's Activities Levels 1 and 2	GSR with Teacher Sea Otters Part 2	Bloom's Activities Levels 1 and 2	GSR with Teacher Sea Otters Part 3	Bloom's Activities Higher levels	GSR with Teacher Sea Otters Part 4	Bloom's Activities Higher levels
Group 2 RA 8-9	Sharing activities with peers	GSR with Teacher Gorillas	Selected follow up activities Could be set up as a work contract which also includes spelling activities etc		Selected follow up activities Could be set up as a work contract which also includes spelling activities etc		Personal Reading programme which could involve own research topic	
Group 3 RA 9-10	Personal Reading programme which could involve own research topic		Sharing activities with peers	GSR with Teacher Kangaroos	Selected follow up activities Could be set up as a work contract which also includes spelling activities etc		Selected follow up activities Could be set up as a work contract which also includes spelling activities etc	
Group 4 RA 10-12	Selected follow up activities Could be set up as a work contract which also includes spelling activities etc		Personal Reading programme which could involve own research topic		Sharing activities with peers	GSR with Teacher Skunks	Selected follow up activities Could be set up as a work contract which also includes spelling activities etc	
Group 5 RA 12-14	Selected follow up activities Could be set up as a work contract which also includes spelling activities etc		Selected follow up activities Could be set up as a work contract which also includes spelling activities etc		Personal Reading programme which could involve own research topic		Sharing activities with peers	GSR with Teacher Armadillos

Set 1: SEA MAMMALS
Possible Headings and Trigger Words

Set 1:1
SEA MAMMALS

Classification
- Warm-blooded
- Hair on bodies
- Live babies
- Feed on own milk

Habitat
- Most of time in water
- Some rest on shore
- Come out of water to breathe

Physical features
- Warm blooded-keep warm
- Lot of fat
- Sleep without drowning
- Flippers

Feeding Behaviour
- Good supply
- Some eat meat
- Some eat plants
- Eat every day
- Lots of time finding food

Reproduction
- Mammals have babies
- Grow inside mother
- Fed with mother's milk

Social Behaviour
- Remember each other
- Talk to each other
- Babies stay with parents
- Others help with babies

Predators
- Sharks
- Killer whales
- Man

Set 1:2
DOLPHINS

Classification
- Mammals
- Whole lives in water

Habitat
- Oceans
- All over the world
- At home in water

Physical features
- Body shape for swimming
- Flippers instead of arms
- Breathe—hole in top of head
- Dive to 500m
- Blubber under the skin

Feeding behaviour
- Eat fish, squid
- Bounce noises off fish
- Catch fish with pointed teeth
- Swallow don't chew

Reproduction
- One baby
- Calf
- 1 metre at birth
- Born under water
- Pushed to surface to breathe
- With mother 3-6 years

Social behaviour
- Friendly
- Swim, play with others
- Help out when sick
- Work together to catch fish

Set 1:3
WALRUSES

Classification
- Large mammals
- Most of time in sea

Habitat
- North Pole
- Spend day in freezing water
- Rest, sunbathe on rocks, ice floes

Physical features
- Some hair
- Layer of fat

Flippers
- instead of legs
- Very strong
- Paddle shape
- Good for swimming

Tusks
- Used to defend
- Pull themselves out of water

Reproduction
- Pup every 2 years
- Ride on mother's back
- With mother - 2 years

Feeding Behaviour
- Eat meat
- Food on ocean floor
- Shellfish
- Suck out soft part
- Sometimes a small seal

Social Behaviour
- Gather on ice floes
- Help each other out

Set 1:4
SEA OTTERS

Classification
- Mammals
- Most of time in sea

Habitat
- Beds of seaweed near shore
- Spend time floating on backs

Physical features
- Metre long
- Webbed back feet
- Front feet like hands

- Very thick fur
- Traps air
- Waterproof

Reproduction
- 1 baby
- Helpless without mother
- Sits on mother's stomach
- Floats on surface while mother goes for food
- Swims, dives after 6 months

Feeding Behaviour
- Need lots of food
- Collect from sea floor
- Underwater for 4 mins
- Rest their food on chest
- Open with rock

Predators
- Large sea mammals
- Eagles take floating babies

Social Behaviour
- Live in groups
- Wrapped in seaweed while sleeping

Set 2 : MAMMALS OF AFRICA
Possible Headings and Trigger Words

Set 2:1
MAMMALS Of AFRICA

Classification
- Warm-blooded
- Hair on bodies
- Live babies
- Mother's milk

Physical features
- Keep body at same temp
- Fur, hair keeps them warm
- Other features for survival

Habitat
- hot desert
- cold mountains
- burrows
- roam - no home

Feeding Behaviour
- Meat eaters
- Plant eaters
- Eat every day
- Most of time looking for food

Reproduction
- All mammals have babies
- Small mammals have lots
- Babies develop inside mother
- Mother feeds them milk

Social Behaviour
- Some live in family groups
- Others help with babies
- Longer childhood than other animals

Predators
- Work out ways to avoid predators
- Large mammal must protect young

Man and mammals
- Man destroy habitats
- Some mammals wiped out

Set 2:2
ELEPHANTS

Classification
- Largest / heaviest land mammal

Physical features
- Trunk - smell danger
  - suck water
  - lift objects
- Tusks - to dig
  - get bark
  - lift things

Habitat
- No place is home
- Food and water=happy
- Sleep standing up

Feeding Behaviour
- Plant eaters
- Most of time eating
- Trunk - gets food off trees
- Tusks - dig up roots
- Learn where to find food, water

Social Behaviour
- Females live in groups
- Stay in group born into
- Oldest female leader
- Fully grown males leave

Reproduction
- Calf every 4-6 years
- Lots for calf to learn
- All the family help
- Younger females look after babies

Predators
- Predators leave them alone
- Drought - biggest worry

Man and elephants
- People take up habitat
- Hunters kill for tusks

Set 2:3
LEOPARDS

Classification
- Cat family

Physical features
- Very fast
- Pounce
- Climb trees
- Colour and spots
- Long sensitive whiskers
- Very good eyesight

Habitat
- Rainforest
- Grasslands
- Desert
- 30sq km territory
- Sleep in trees during day

Social Behaviour
- Lives alone
- Checks territory
- Marks territory
- Will fight with other leopards

Reproduction
- Cubs–lives in a den 2 or 3 cubs
- Hides them for 8 weeks
- Learn to hunt
- Own territory after 2 yrs

Feeding Behaviour
- Skilful hunters
- Lots of different food
- Hunts at night
- Sneak up
- Bite prey's neck
- Takes kill up a tree

Man and leopards
- Destroy habitat
- Kill to protect farm animals
- Hunted for fur

Set 2:4
GORILLAS

Classification
- Huge mammals
- Ape family
- Very clever

Physical features
- Arms longer than legs
- Male much bigger
- Thick black shaggy hair
- Males become silverbacks

Habitat
- Only Africa
- Live mostly on the ground
- Have an area
- Make nests at night
- Each has own nest
- Babies sleep in mother's nest

Social Behaviour
- Live in family groups
- Silverback is in charge
- Fights off other male gorillas

Feeding Behaviour
- Spend 1/2 day feeding
- Need lots of food
- Plenty of food available
- Silverback decides where to feed

Reproduction
- 1 baby every 3-4 years
- Baby - long time with mother

Predators
- No natural predators
- Silverback scares off threats

Man and gorillas
- Hunters kill for trophies
- Only 500 left

Set 3 : MAMMALS OF AUSTRALIA
Possible Headings and Trigger Words

Set 3:1
MAMMALS of AUSTRALIA

Classification
- Mammals-milk for young
- Marsupials-pouch

Habitat
- Mainly Australia
- Burrows
- Trees
- Some have no home or nest

Physical features
- Warm-blooded
- Fur to keep warm
- Sweat to cool down
- Have other features

Reproduction
- Babies grow inside mother
- Marsupials born when very small
- Find mother's pouch
- Attach to a nipple
- Protected by pouch until ready to explore

Feeding Behaviour
- Have to eat a lot
- Spend lots of time finding food
- Some eat plants
- Some eat meat
- Look for food at night

Social Behaviour
- Most live alone
- Protect feeding area
- Not smart enough to organize groups
- Males only interested in females for mating
- Males don't look after

Man and marsupials
- Seen as pests
- Kill farm animals
- Eat stock's food
- Break down fences
- Hunted for meat and skins
- Man destroys habitat
- Now protected by law

Set 3:2
RED KANGAROOS

Classification
- Largest marsupial
- Famous for hop

Physical features
- Back legs like springs
- Long tapering tail
- Short front legs

Habitat
- Central Australian desert
- No place that is home
- Rest in shade
- Dig holes in cool sand

Feeding Behaviour
- Eat grass and plants
- Feed at night
- Don't need water if green food available

Reproduction
- 1 baby at a time
- 3 months in mother's pouch
- Leaves pouch after 7 months
- Stays with mother

Social Behaviour
- Feeding groups-mobs
- Stamp feet or tail - danger
- Strongest males get to mate

Predators
- Escape predators with speed
- Kick to defend
- Hawks dingoes look for sick or young

Man and kangaroos
- Habitat (desert) not in danger
- Farmers provide grass
- Govt controls numbers

Set 3:3
TASMANIAN DEVILS

Classification
Meat eating marsupial

Physical features
- Thick fur
- Black and white markings
- Powerful jaws
- Long whiskers
- Shows its sharp teeth
- Seems bad-tempered
- Spine chilling screams

Habitat
- Can live anywhere in bush
- Keep hidden during the day

Reproduction
- Many babies—only the strongest survive
- In pouch for 4 months
- Stay hidden in a den

Feeding Behaviour
- Eat meat
- Search for food at night
- Can climb trees—eat birds
- Eat anything / everything
- Good sense of smell
- Eat lots at a time

Social Behaviour
- Live and hunt alone
- Squabble over food

Predators
- No natural predators for adults
- Owls hunt young
- Numbers kept down by competition for food

Man and Tas devils
- Now protected
- Clean up farms and roadside

Set 3:4
WOMBATS

Classification
- Mammal
- Largest burrower

Physical features
- Short tail
- Powerful legs
- Thick neck
- Blunt head
- Bulldoze anything

Habitat
- Burrow—half life
- Protection
- Digs - banks, side ofhills
- 30 metre burrow

Reproduction
- 1 baby
- Backwards opening pouch
- In pouch for 6 months
- With mother for 5-10 months

Feeding Behaviour
- grass, roots, herbs
- 3-8 hrs grazing at night
- front teeth-always growing

Social Behaviour
- Loner
- Don't share feeding ground
- Marks territory with dropping

Predators
- Tas devils, eagles
- Rely on smell, hearing
- Quick over short distance
- Hides in burrow, hollow log
- Very tough skin protects bottom
- Uses bottom to crush

Man and wombats
- Habitat destroyed for farms
- Damage fences
- Dig up crops
- Road kill at night

Set 4 : MAMMALS OF NORTH AMERICA
Possible Headings and Trigger Words

Set 4:1
MAMMALS OF NORTH AMERICA

Classification
- Warm-blooded
- Hair
- Live babies
- Mother's milk

Physical features
- Constant temperature
- Hair, fur keeps warm
- Sweat glands keep cool
- Species have other features

Habitat
- Many different habitats
- Snow , forest, desert in North America
- Burrows, trees, wander freely
- Establish home territory

Feeding Behaviour
- Need to eat all the time
- Eat meat, plants or both
- Work out ways of collecting
- Some more successful at this

Reproduction
- Strong instincts to reproduce
- Males fight over females during mating time
- Small species have more babies

Social Behaviour
- Recognize each other
- Talk to each other
- Form social groups
- Long childhood
- Copy, learn adult behaviour

Predators
- Species work out how to avoid
- Weak animals get picked off

Man and mammals
- Compete for space
- Humans take wild habitats
- Hunt for food and sport
- Consider species a nuisance
- Some species extinct

Set 4:2
MOOSE

Classification
- Largest land mammal in Nth America
- Member of deer family

Physical features
- Bull 2 m high at shoulder
- Front legs longer than back
- Long hair
- Excellent hearing, poor sight
- Very good sense of smell
- Antlers for display

Habitat
- Alaska, Canada, America
- Forest and woods
- Near lakes and rivers
- Don't like heat
- Some snow OK

Reproduction
- Males fight for mates
- 1 or 2 calves
- Feed from mother for 6 mths
- Stay with mother for a year
- Live for 12 years

Feeding Behaviour
- Plant eaters
- Most of time spent eating
- Forest feeding in winter
- Water plants in summer
- Spend a lot of time in water
- Hard to find food in winter

Social Behaviour
- Most of the year alone
- Gather in groups during mating

Predators
- Well able to defend from wolves
- Lose a lot of young in first year

Man and moose
- Nuisance to man
- Hunted for meat and sport
- Not threatened species

Set 4:3
BEAVERS

Classification
- Large mammal, largest rodent
- Lots of time in water

Physical features
- 1 metre in length
- Ears, nostrils close in water
- Front feet like hands
- Large back feet webbed
- Fur almost waterproof
- Large flat tail
- 15 mins underwater
- Large very sharp teeth

Habitat
- Rivers, streams, lakes, ponds
- Slow, awkward on land
- Change environment
- Build dams and lodges
- Stay safe and warm in winter

Reproduction
- 1 mate for life
- Breed once a year
- Litter between 2-6
- Learn to swim quickly
- Live for up to 20 years

Feeding Behaviour
- Summer - grass,leaves,ferns
- Winter - bark
  - store food underwater

Social Behaviour
- Work together building
- Also gather and store food
- Live in family groups
- Young beavers leave when 2yrs start own lodge

Predators
- Safe from predators in lodge
- Otters, bears, bobcats etc

Man and beavers
- Hunted for beaver fur
- Man spoils habitat
- Beavers create problems
- Beavers do an important

Set 4:4
SKUNKS

Classification
- Mammals, weasel family
- Disgusting smell

Physical features
- Size of a cat
- Never in a hurry
- Eyesight, smell, hearing poor
- Shiny black fur
- White stripes

Habitat
- America, southern Canada
- Farms, forest, suburbia
- Never far from water supply
- Live in burrows
- Must be warm, dark, dry, defendable

Reproduction
- 4-7 babies
- Lifespan only 2 years
- Weaned at 6-7 weeks
- Young hunt with mother
- Mother very protective

Feeding Behaviour
- Wide range of food
- Look for food at night
- Keep roadways clean
- Get fat in autumn
- Sleep lots in winter

Social Behaviour
- Don't mind being around other animals and people
- Share dens in cold weather

Predators
- Few predator because of spray
- Biggest threat is from cars on the road

Man and skunks
- Very adaptable
- Live close to man
- Annoy humans going

Set 5 : MAMMALS OF THE AMAZON
Possible Headings and Trigger Words

Set 5:1
MAMMALS of The AMAZON

Classification
- Warm-blooded
- Hair
- Live babies
- Mother's milk

Physical features
- Constant temperature
- Hair, fur keeps warm
- Sweat glands keep cool
- Different species have different features

Habitat
- Many different habitats
- Amazon a hot steamy jungle
- Some - forest canopy
- Some - forest floor
- Establish a territory

Feeding Behaviour
- Eat all the time
- Part of the food chain
- Eat meat, plants or both
- Work out ways of collecting
- Some more successful at this

Reproduction
- Strong instincts to reproduce
- Males fight to mate with females
- Vulnerable species have more babies
- Babies grow inside mother
- Feed milk from mammary glands

Social Behaviour
- Recognize each other
- Talk to each other
- Form social groups with rules
- Long childhood
- Copy, learn adult behaviour

Predators
- Species work out how to avoid
- Large animals have to protect young
- Weak animals- picked off
- Keeps species strong

Man and mammals
- Compete for space
- Man destroying wild habitat
- Many rainforest species have nowhere to go

Set 5:2
ARMADILLOS

Classification
- Only mammal with a shell
- 9-banded-most common

Physical features
- Pointy ears, long snout
- Size of a cat
- Excellent smell, hearing
- Poor sight
- Armour plating
- Inflates stomach for buoyancy

Habitat
- Likes warm conditions
- Lives in burrows

Feeding Behaviour
- Insect eaters
- Smell food 20cm below surface
- Dig with front paws
- Collect insects-long sticky tongue

Reproduction
- 4 identical babies
- Well developed at birth
- Out of burrow after 2 weeks
- Can delay pregnancy
- Life span 4-7 years

Social Behaviour
- Share burrow while mating
- Otherwise loners

Predators
- Preyed on by larger animals
- Runs quickly for a burrow
- Hard to get out of burrow
- Jumps 1m in the air if startled

Man and armadillos
- Hunted for meat, shell
- Survive in other habitats

Set 5:3
VAMPIRE BATS

Classification
- Only flying mammal
- 1000 species
- feared

Habitat
- Like warm habitats
- Groups of 20-100
- Caves or hollow trees
- Roost during the day hanging

Feeding Behaviour
- Only eats blood
- Prey doesn't know (asleep)
- Feed for 30 mins
- Laps blood from a wound it makes
- Drink 50-100% bodyweight
- Urinate—gets rid of excess water
- Share food with bats who miss out

Physical features
- Size of man's thumb
- Wingspan 20cm
- Runs and hops
- Strong hind legs
- Clawed thumb for climbing

Reproduction
- 1 baby after 7 months
- Well developed baby
- Fed milk for 2 months

Social Behaviour
- Groups of 20 females and young, lone male
- Females stay with mother
- Recognize each other
- Groom each other-social bond

Man and vampire bats
- Rainforest being destroyed
- Farming has increased food supply
- Farmers try to get rid of them

Set 5:4
SLOTHS

Classification
- Tree dweller
- Slowest mammal

Physical features
- Size of cat
- Not like any other animal
- 270 degrees head turn
- Claws - hanging
- Walks upside down on branches
- On the ground-useless

Habitat
- Forest canopy of-rainforest
- Mostly sunning, sleeping, feeding
- Very slow-hard to see
- Come to earth to defecate

Predators
- Hawks, harpy eagles, big cats

Defenses
- Slow movements
- Stay on thin branches

Feeding Behaviour
- Only leaves
- Rely on smell and touch
- Trouble with digestion
- Slow movements because of low energy diet

Reproduction
- 1 baby once a year
- Weaned after 6 weeks
- Ride on mother - 5 more months
- Learns what leaves to eat
- Live 5-10 years

Social Behaviour
- Not social animals
- Little communication

Man and sloths
- Man destroying habitat
- Endangering species