

Science Journal

YEAR 5 BIOLOGICAL SCIENCE

Understanding living things
and the amazing ways
they survive!

Name: _____

Class: _____



INVESTIGATE



OBSERVE



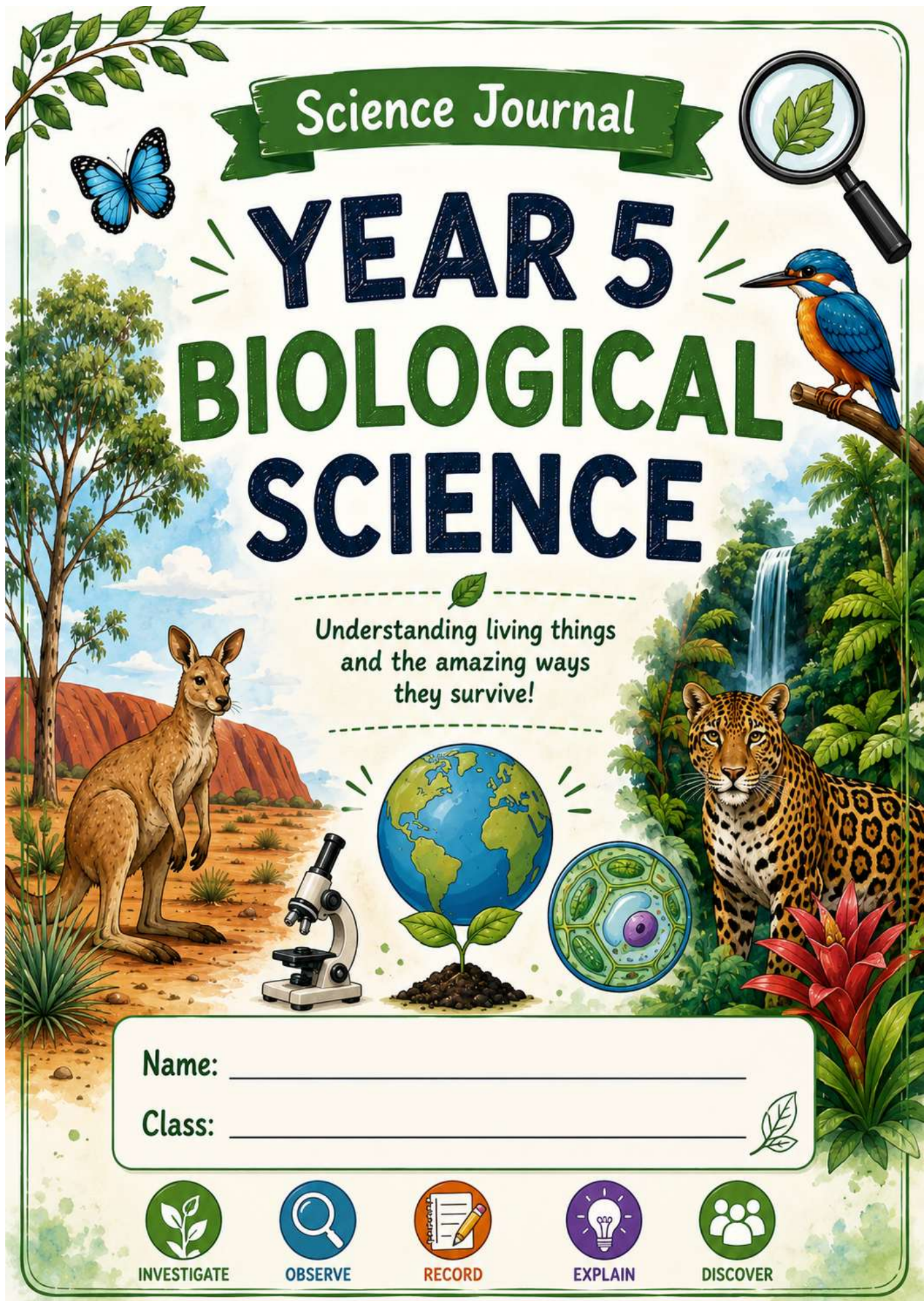
RECORD



EXPLAIN



DISCOVER





Lesson 1 - Around the World Habitats

World Habitat Scientists explore how different environments create different survival challenges for living things.



1. Compare the Habitats

Use the Environment Posters to investigate and complete the table.

Condition	 Australian Desert	 Swedish Boreal Forest	 Mexican Tropical Rainforest
 Temperature / climate			
 Rainfall / water			
 Food / shelter			
 Main survival challenge			

2. Compare

One important difference between two habitats is:



This could affect living things because:



3. Science Question

Write three questions you could investigate later. Use *I wonder* statements:

1. I wonder _____
2. I wonder _____
3. I wonder _____



Lesson 2 – Survival Superpowers

Nature has amazing designs that help living things survive!



Complete the table using the X-ray posters.

Investigate at least 4 organisms, including:



at least one plant



at least one animal



organisms from at least two countries

 Organism	 Habitat Challenge	 Physical / Structural Feature	 How It Helps Survival



Compare

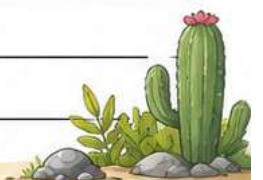
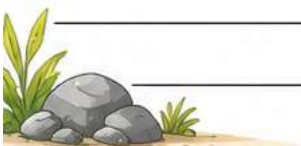
Choose one plant and one animal.



Both the _____ and _____

have features that help them

However, their features are different because





Lesson 3 – Smart Behaviours

Behaviour is
WHAT an organism
DOES!



Use the posters to complete the matrix.

Survival Challenge	 Australia	 Sweden	 Mexico
 Finding food			
 Avoiding predators			
 Extreme temperatures			

Pattern

A pattern I notice is:



Explain



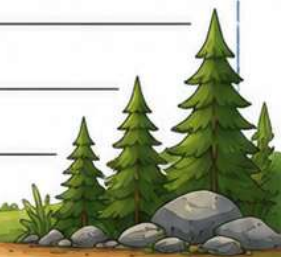
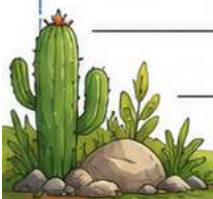
Both _____ and _____

face the challenge of _____

but they use different behaviours. _____



This helps survival because _____





Lesson 4 – Survival Scientist Investigation



Part A – Plan



My Investigable Question



My Reasoned Prediction

I predict that _____

because _____



Safe and Responsible Research

How will you investigate safely and responsibly?

- ☐ Use classroom resources appropriately
- ☐ Move safely when accessing posters/resources
- ☐ Record information accurately
- ☐ Identify sources used



Sources I Will Use

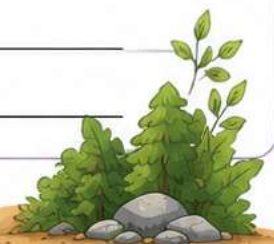
- ☐ Environment Posters
- ☐ X-ray Posters
- ☐ Comparison Posters
- ☐ Previous lesson work



What Will I Compare?

Countries / habitats: _____

Organisms: _____





Lesson 4 – Survival Scientist Investigation

Part B – Collect Evidence



Be a careful researcher!

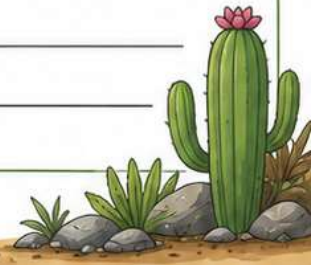
Use the posters and your plan to collect strong evidence about how organisms survive in different habitats.

 Organism / Country	 Habitat Challenge	 Structure or Behaviour	 How It Helps	 Relevant Evidence



Early Pattern

One pattern or relationship I am beginning to notice is:





Lesson 5 – Nature Inspires Humans

Biomimicry Investigation



Look closely at nature! Many human inventions are inspired by the amazing designs and behaviours of living things.

 Organism	 Biological Feature	 What It Does	 Human Application
 Gecko			Climbing / adhesive technology
 Kingfisher			Bullet train
 Lotus leaf			Self-cleaning surface
 Thorny Devil			Water harvesting
 Owl			Quiet technology
 Cactus			Water collection / storage



This table can be completed quickly through class discussion.

Explain ONE Example

Organism: _____

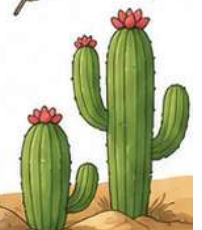
The feature is: _____

Its function is: _____

This knowledge inspired: _____

It helps solve the problem of:

This can help individuals or communities by:





Lesson 6 - Research Investigation

Part A - Complete Your Evidence



Return to your Lesson 4 investigation.

Use all your evidence to deepen your understanding of how organisms survive in different habitats.



Investigation Question _____

Original Prediction _____

 Organism / Country	 Habitat / Challenge	 Structure / Behaviour	 How It Enables Survival

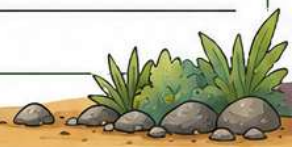


Part B - Compare



A similarity between _____ and _____ is _____

A difference is _____





Part C – Pattern and Relationship



A pattern in my evidence is _____

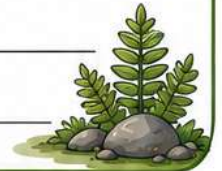


Evidence for this pattern is _____



I found a relationship between _____ and _____

because _____



Part D – Check Your Prediction



☐ Supported

☐ Partly supported

☐ Not supported



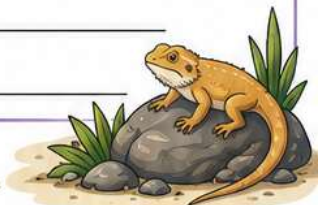
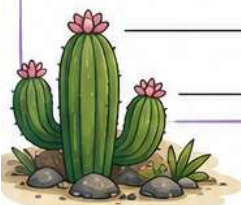
Evidence that supports or challenges my prediction: _____



Part E – Scientific Conclusion



My investigation found that _____



INTERNATIONAL SURVIVAL SCIENCE MUSEUM

STUDENT ASSESSMENT INSTRUCTIONS

YOUR MISSION

You are a Survival Scientist!

Your job is to create an Informative Library Display that teaches visitors:

How do living things survive in challenging environments?

Choose ONE country and habitat as your main focus:



Australian Desert



Swedish Boreal Forest



Mexican Tropical Rainforest

You will also compare your habitat with ONE other country.

YOUR SCIENCE CHALLENGE

Don't just tell your visitors facts — explain the science!



Instead of:

The Arctic Fox has thick fur.



Explain:

The Arctic Fox has thick fur that provides insulation, helping it stay warm and survive cold conditions.



Think:



HABITAT



CHALLENGE



FEATURE OR BEHAVIOUR



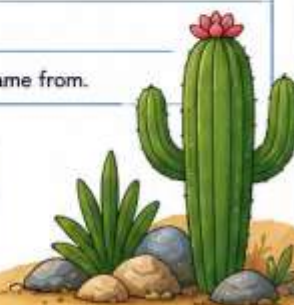
HOW IT HELPS SURVIVAL

WHAT MUST BE IN MY DISPLAY?

YOUR DISPLAY NEEDS	WHAT YOU NEED TO DO
Country & Habitat	Name your country and describe its habitat.
Environmental Conditions	Explain important conditions such as temperature, rainfall and water availability.
Survival Challenges	Explain the problems living things face in this environment.
Structural Features	Explain physical features that help plants and animals survive.
Behaviours	Explain what animals do to help them survive.
Compare	Compare your habitat or organisms with another country.
Pattern	Identify something that happens more than once in your evidence.
Relationship	Explain how an environmental condition is connected to a survival feature or behaviour.
Biomimicry	Explain how people have learned from a living thing to solve a human problem.
Science Helps People	Explain how this scientific knowledge can help people or communities.
Scientific Visuals	Include labelled diagrams and useful captions.
Scientific Language	Use accurate scientific vocabulary.
References	Tell your visitors where your information came from.

REMEMBER

Your visitors should leave your display understanding:
Different environments create different survival challenges.
Living things have physical features and behaviours that help them survive, and people can use scientific knowledge about living things to solve human problems.





INTERNATIONAL SURVIVAL SCIENCE MUSEUM



STUDENT ASSESSMENT INSTRUCTIONS

★ SHOW YOUR BEST SCIENCE

Your display should show a range of examples.

Make sure you include:



plants + animals



structures + behaviours



similarities + differences



evidence + explanations



Use comparison words such as:

both • **similarly** • **however** • **unlike**
whereas • **compared with**

Use scientific words such as:

habitat • environment • survival • structural feature
behaviour • predator • camouflage • evidence
pattern • relationship • biomimicry



NATURE INSPIRES HUMANS

Choose ONE biomimicry example.

Explain:



Living thing



Feature



Function



Human idea



Problem solved



How it helps people



What feature did scientists study?



What does the feature do?



What human design did it inspire?



What problem does the design solve?



How could this help individuals or communities?



SCIENTIST'S FINAL CHECK

Before your museum display is ready for visitors, check:

☐ I identified my country and habitat.



☐ I explained important environmental conditions and survival challenges.



☐ I explained a range of structural features and behaviours.



☐ I included examples from plants and animals.



☐ I explained how features and behaviours help survival.



☐ I compared my habitat or organisms with another country.



☐ I identified a pattern in my evidence.



☐ I explained a relationship shown by my evidence.



☐ I explained one biomimicry example.



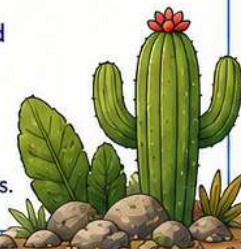
☐ I explained how scientific knowledge can solve a problem and help people or communities.



☐ I used scientific vocabulary and comparison language.

☐ I included labelled diagrams and captions.

☐ I included my information sources.



Your museum visitors should leave your display understanding:

Different environments create different survival challenges.
Living things have physical features and behaviours that help them survive, and people can use scientific knowledge about living things to solve human problems.



AUSTRALIAN DESERT

⇒ Tough. Beautiful. Full of Life. ⇒



Australian deserts are some of the oldest and most unique on Earth. They cover around 18% of Australia and are home to amazing plants and animals that have adapted to harsh conditions.



DID YOU KNOW?



Some parts of the Australian desert have had no rain for **YEARS!**



Daytime temperatures can be over **40°C**, but drop below **0°C** at night.



Plants and animals have clever ways to find, save and use water.



Deserts can be noisy places – wind, insects, birds and animals all play a part!

DESERT LANDSCAPES



SAND DUNES

Shifting sands shaped by wind.



STONY PLAINS

Large areas covered in pebbles and rocks.



SPINIFEX GRASSLANDS

Tough grasses that survive the heat.



ROCKY RANGES

Ancient landforms and canyons.

INCREDIBLE DESERT WILDLIFE



RED KANGAROO

Built for the desert, red kangaroos can go long periods without drinking water.



THORNY DEVIL

This lizard collects water through tiny channels in its skin.



BILBY

Bilbies dig burrows and use their long ears to stay cool.



WEDGE-TAILED EAGLE

Australia's largest eagle, soaring high above the desert searching for food.



BUDGIE (BUDGERIGAR)

These clever birds find water in plants and seeds.

PLANTS OF THE DESERT



MULGA TREE

Deep roots find underground water.



SPINIFEX GRASS

Spiky leaves reduce water loss and protect from animals.



SNAKE BUSH

Small leaves and waxy coating help save water.



STURT'S DESERT PEA

A desert icon that flowers after rain and brightens the landscape.

AMAZING ADAPTATIONS



SAVE WATER

Many plants have tiny leaves or coated leaves to stop water loss.



DEEP ROOTS

Some plants grow roots deep underground to find water.



NIGHT-TIME ACTIVE

Many animals rest during the day and move at night when it's cooler.



COOL SHELTER

Animals dig burrows or hide in shade to escape the heat.



QUICK TO GROW

After rain, desert plants can grow, flower and set seed very quickly!

THREATS & CARE



Climate change – hotter temperatures and less rain affect plants and animals.



Invasive animals – pests like feral cats and rabbits harm native wildlife.



Human impact – off-road driving, litter and clearing damage fragile habitats.



We can all help by respecting Country, staying on tracks, taking our rubbish home and protecting wildlife.

RESPECT THE DESERT



Stay on tracks



Take rubbish with you



Observe wildlife



Leave plants and rocks



Respect Country





SWEDISH BOREAL FOREST

⇒ A Wild, Cool and Wonderful Place ⇒

WHERE IS IT?

The boreal forest (Taiga) stretches across northern Sweden. It is one of the largest forested areas in Europe.

SWEDEN

DID YOU KNOW?



Long, cold winters and short, mild summers shape life here.



The boreal forest stores large amounts of carbon, helping our planet!



In summer, the sun can shine almost 24 hours a day in the north (Midnight Sun).



In winter, you might see the magical Northern Lights (Aurora Borealis).

FEATURES OF THE BOREAL FOREST



CONIFEROUS TREES

Evergreen trees like spruce, pine and fir dominate the forest.



MANY LAKES & RIVERS

Sweden has more than 100,000 lakes and many flowing rivers.



MOSS & LICHEN

Soft mosses and lichens cover the forest floor like a green carpet.



THIN SOILS & ROCK

Much of the land is rocky with thin, nutrient-poor soils.



WETLANDS & BOGS

Bogs and wetlands are home to special plants and animals.

AMAZING ADAPTATIONS



EVERGREEN NEEDLES

Needle-shaped leaves reduce water loss and survive the cold and snow.



CONES THAT PROTECT SEEDS

Pine and spruce cones stay closed in winter and open in warm, dry weather to release seeds.



THICK FUR

Animals grow thick fur in winter to stay warm and camouflaged.



FAT STORAGE

Many animals build up fat in summer to survive long, cold winters.



SLOW GROWTH

Trees grow slowly in the cold climate, some living for hundreds of years!

INCREDIBLE BOREAL WILDLIFE



MOOSE (ÄLG)

Sweden's largest land animal. They love wet areas and browse on leaves and twigs.



EURASIAN LYNX (LODJUR)

A shy and silent hunter with excellent hearing and night vision.



BROWN BEAR (BJÖRN)

Powerful and intelligent. They hibernate during the winter.



GREY WOLF (VARG)

Lives in packs and helps keep the forest ecosystem balanced.



WOLVERINE (JÄRV)

Strong and tough! They can travel long distances in search of food.



CAPercaillie (ORRE)

Sweden's national bird. Males have impressive courtship displays.

PLANTS OF THE BOREAL FOREST



NORWAY SPRUCE (GRAN)

Sweden's most common tree. Provides shelter and food for many animals.



SCOTS PINE (TALL)

Tough and can grow in poor, rocky soils.



BILBERRY (BLÅBÄR)

Sweet berries that ripen in summer and are loved by many!



CLODBERRY (HJORTON)

A special berry found in bogs. A Swedish delicacy!



REINDEER LICHEN (RENLAV)

Important food for reindeer in winter.



FIREWEED (MJÖLKÖRT)

Bright flowers that grow in open areas.

THREATS & SOLUTIONS



DEFORESTATION

Too much logging can destroy habitats. **SOLUTION:** Sustainable forestry practices protect forests for the future.



CLIMATE CHANGE

Warmer temperatures can change the balance of the forest. **SOLUTION:** Reduce emissions and protect forests to fight climate change.



HABITAT FRAGMENTATION

Roads and development can break up habitats. **SOLUTION:** Protect large areas of forest and wildlife corridors.



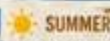
Healthy forests support wildlife, clean air, clean water and a healthy planet. Let's protect Sweden's boreal forests!

A PLACE OF SEASONS



SPRING

Snow melts, rivers flow and new life appears. Plants and animals wake up!



SUMMER

Long days, lush green forests and berries ripe for picking.



AUTUMN

Leaves change colour, harvest time for berries, mushrooms and preparing for winter.



WINTER

Cold, snowy landscapes. Animals survive and the forest rests.

SWEDEN'S FORESTS ARE PRECIOUS

They are home to people, culture, recreation and incredible biodiversity. Respect, explore and help keep them wild for generations to come.

THREE AMAZING PLACES – ONE PLANET

Different places, different climates, unique adaptations – all important!

STUDENTS
COMPARE:



AUSTRALIAN DESERT



SWEDISH BOREAL FOREST



MEXICAN TROPICAL RAINFOREST



CLIMATE



Arid (dry) climate.
Clear skies, very low humidity
and lots of sunshine.



Subarctic climate.
Long, cold winters and
short, mild summers.



Tropical climate.
Warm and humid
all year round.



RAINFALL



Very low rainfall.
Usually less than 250 mm
per year.



Moderate rainfall.
Around 400–700 mm per year,
often as snow in winter.



Very high rainfall.
1,500 – 4,000+ mm
per year.



TEMPERATURE



Hot days, cool nights.
Summer days can be over 40°C.
Nights can drop below 10°C
in winter.



Cold winters, mild summers.
Winters often below –10°C.
Summers around 15–20°C.



Warm all year.
Usually between 20–30°C
with little change.



WATER
AVAILABILITY



Water is scarce.
Very limited water from rain,
underground aquifers
or waterholes.



Water is available.
Rivers, lakes and melting snow
provide fresh water for plants,
animals and people.



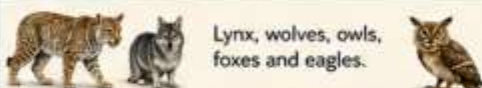
Water is abundant.
Lots of rain keeps rivers
flowing and supports rich
plant and animal life.



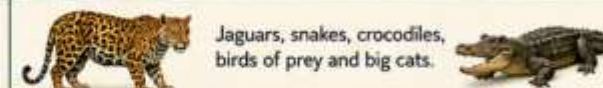
PREDATORS



Dingoes, wedge-tailed eagles,
snakes and lizards.



Lynx, wolves, owls,
foxes and eagles.



Jaguars, snakes, crocodiles,
birds of prey and big cats.



SHELTER



Rock crevices, burrows,
shallow caves and shade
under bushes.



Among trees, in burrows
or dens, and under thick
snow in winter.



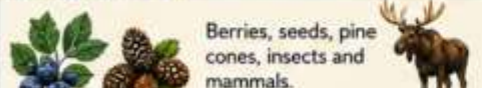
In trees, on branches, under
large leaves and in thick
vegetation.



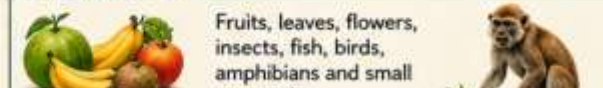
FOOD
SOURCES



Seeds, leaves, insects,
small mammals, reptiles
and nectar.



Berries, seeds, pine
cones, insects and
mammals.



Fruits, leaves, flowers,
insects, fish, birds,
amphibians and small
mammals.



EVERY PLACE IS SPECIAL.



EVERY PLACE IS HOME.



LET'S RESPECT AND PROTECT THEM ALL!



AUSTRALIA



HOW BEHAVIOURS HELP LIVING THINGS SURVIVE.

Australia has hot days, cool nights and limited water in many places. Living things have amazing behaviours that help them survive in these conditions.



1. NOCTURNAL BEHAVIOUR

Some animals are active at night and rest during the day to avoid the heat.



HOW IT HELPS

- Avoids extreme daytime heat.
- Finds food when it is cooler.
- Reduces water loss.



EXAMPLES



Powerful owls hunt at night.



Bilbies search for insects and seeds at night.



Possums come out at night to find food.



2. BURROWING

Many animals dig or live in burrows underground to stay safe and cool.



HOW IT HELPS

- Keeps animals cool in hot weather.
- Protects from predators and bushfires.
- Maintains humidity and saves water.



EXAMPLES



Bandicoots dig burrows to live and raise their young.



Termites build mounds that stay cool inside.



Many reptiles hide in burrows to escape the heat.



3. WATER CONSERVATION

Animals and plants have clever ways to save water in dry environments.



GETS WATER FROM FOOD

Kangaroos get most of their water from plants they eat.



COLLECTS DEW

Thorny devils channel dew to their mouths through tiny grooves in their skin.



USES LESS WATER

Many plants have waxy leaves or small leaves to reduce water loss.

HOW IT HELPS

- Helps living things survive with very little water.
- Prevents dehydration in hot, dry conditions.
- Allows animals to live in areas where water is scarce.



EXAMPLES



Camels store fat in humps and can go long time without water.



Acacia trees have tiny leaves and deep roots to find water.



Black cockatoos eat dry seeds that need very little water.

Different behaviours help living things survive in Australia's unique environment.

Adapt, survive, thrive!





SWEDEN HOW BEHAVIOURS HELP LIVING THINGS SURVIVE.

Sweden has long, cold winters and short summers. Living things have amazing behaviours that help them survive in these conditions.



1. HIBERNATION

Some animals sleep for many months during the long, cold winter to save energy.



HOW IT HELPS

- Saves energy when food is hard to find.
- Keeps animals warm and safe.
- Helps them survive until spring.



EXAMPLES



Hedgehogs sleep in nests made of leaves and grass.



Bears hibernate in dens and don't eat or drink.



Badgers stay in underground sets and live off fat stored in autumn.



2. MIGRATION

Some animals travel long distances to find warmer places with more food during winter.



HOW IT HELPS

- Allows animals to find food and milder weather.
- Helps them avoid the harsh winter.
- They return in spring to breed and raise young.



EXAMPLES



Cranes fly to warmer countries like Spain or Africa.



Swallows migrate all the way to Africa for the winter.



Arctic terns travel the longest distance of any bird - to Antarctica!



3. LIVING IN FAMILY GROUPS

Many animals live in groups or families to help protect each other and survive.



HOW IT HELPS

- More eyes to look out for danger.
- Helps find food and raise young.
- Keeps everyone warm and safe.



EXAMPLES



Reindeer travel and stay together in large herds.



Wolves hunt and care for their pups as a family.



Long-tailed tits huddle in flocks to stay warm in winter.



Different behaviours help living things survive in Sweden's cold climate.



ADAPT • SURVIVE • THRIVE





MEXICO

TROPICAL RAINFOREST

HOW BEHAVIOURS HELP LIVING THINGS SURVIVE

Mexico's tropical rainforest is hot, wet and full of life!



Southern & South-eastern Mexico





1. CAMOUFLAGE

Many rainforest animals blend in with their surroundings so they are harder to see.



HOW IT HELPS:

- ✓ Keeps animals safe from predators.
- ✓ Helps predators get closer to their prey.
- ✓ Makes it easier to hide in the dense forest.

EXAMPLES:



Jaguar
Spotted coat blends with shadows.



Leaf-tailed Gecko
Looks like a leaf.



Stick Insect
Looks like a twig.



2. TREE CANOPY LIVING

Many animals live high in the tree canopy, the top layer of the rainforest.



HOW IT HELPS:

- ✓ Gives access to more food (fruit, leaves and flowers).
- ✓ Keeps animals away from many predators on the ground.
- ✓ Provides shelter and safe places to rest and raise young.

EXAMPLES:



Spider Monkey
Lives high in the canopy and swings through the trees.



Toucan
Uses the canopy to find fruit.



Sloth
Spends most of its life in the treetops.



3. NIGHT HUNTING

Some rainforest animals are active at night (nocturnal) when it is cooler and darker.



HOW IT HELPS:

- ✓ Avoids the daytime heat.
- ✓ Helps them sneak up on prey.
- ✓ Reduces competition with daytime animals.

EXAMPLES:



Ocelot
Hunts small animals at night.



Frog
Catches insects in the cooler night air.



Owl
Hunts in the dark using excellent night vision and quiet flight.

Different behaviours... **ADAPT • SURVIVE • THRIVE!**

Living things in Mexico's tropical rainforest use clever behaviours to stay alive!



SURVIVAL SCIENTIST INVESTIGATION

Explore. Compare. Investigate. Survive!

Different places.
Different challenges.
Amazing adaptations!

	 AUSTRALIA DESERT	 SWEDEN BOREAL FOREST	 MEXICO TROPICAL RAINFOREST
 1 How do animals survive extreme heat?	Beat the Heat! - Nocturnal behaviour – active at night. - Burrowing in cool ground. - Large ears help release body heat. 	Stay Cool in Summer! - Seek shade in cool forests. - Rest during the hottest part of the day. - Find cool water to drink. 	Keep Cool in the Canopy! - Live in shady rainforest layers. - Pant or sweat (some animals). - Drink water and eat juicy fruit. 
 2 How do plants survive with little water?	Save Every Drop! - Waxy leaves to reduce water loss. - Deep roots to reach underground water. - Store water in stems or leaves. 	Built for the Boreal! - Needle-shaped leaves to reduce water loss. - Thick bark protects from drying. - Grow close to the ground. 	Rainforest Survival! - Broad leaves to catch rain. - Drip tips to shed excess water. - Shallow roots spread wide to absorb surface water. 
 3 Which behavioural feature best protects animals from predators?	Hide or Disappear! - Camouflage in sand and rocks. - Burrow to hide underground. - Freeze and stay still. 	Blend and Escape! - Thick fur for camouflage. - Stay in groups for safety. - Quick to climb trees or run. 	Hide in Plain Sight! - Camouflage with colours and patterns. - Stay in trees out of sight. - Use speed to escape. 
 4 How do animals survive cold environments?	Desert Winters! - Some animals slow down their activity. - Burrow to stay warm. - Grow thicker coats. 	Cold Weather Experts! - Thick fur or feathers. - Hibernation to save energy. - Store fat for warmth. 	High Places, Cool Nights! - Move to lower valleys. - Grow thicker hair. - Snuggle in groups. 
 5 Which country has the greatest survival challenges?	Extreme Heat & Drought - Very hot days. - Little rain. - Finding water is hard. 	Long, Cold Winters - Freezing temperatures. - Snow covers food. - Short growing season. 	Rain, Heat & Predators - Lots of rain and insects. - Many predators. - Competition for food and space. 



Every living thing has amazing adaptations.

ADAPT ☆ SURVIVE ☆ THRIVE

Our world is full of challenges – but nature always finds a way!



INVESTIGATE!

Use what you have learned to answer each question.

- 1** How do animals survive extreme heat?
- 2** How do plants survive with little water?
- 3** Which behavioural feature best protects animals from predators?
- 4** How do animals survive cold environments?
- 5** Which country has the greatest survival challenges?



Think like a scientist!
Observe. Compare. Explain.
Draw conclusions!

NATURE INSPIRES HUMANS

Biomimicry.



SCIENTIFIC APPLICATIONS.

Scientists study nature to solve real-world problems and create innovative solutions.



HOW COMMUNITIES USE SCIENTIFIC KNOWLEDGE.

Communities use these ideas to improve lives, build sustainable solutions and protect our future.

ORGANISM

HUMAN DESIGN



GECKO

Tiny hairs on gecko feet create strong grip on almost any surface.



CLIMBING TECHNOLOGY

Adhesive materials and climbing gear inspired by gecko feet improve safety and performance.



KINGFISHER

Long beak and streamlined body reduce splash and drag when diving.



BULLET TRAIN

Shinkansen nose shape inspired by kingfisher beak reduces noise and air resistance.



LOTUS LEAF

Waxy surface repels water and dirt, keeping leaf clean.



SELF-CLEANING SURFACES

Paints, fabrics and building materials mimic lotus leaves to stay cleaner for longer.



THORNY DEVIL

Skin channels water to mouth through tiny grooves.



WATER HARVESTING

Surfaces and materials collect and channel water in dry environments.



OWL

Special feathers reduce noise for silent flight.



QUIET AIRCRAFT

Aircraft wings and engines designed to reduce noise, inspired by owl feathers.



CACTUS

Stores water in thick stems and reduces water loss.



WATER STORAGE

Tanks and materials store water efficiently for homes, farms and communities.

