OUR PLANET **THEIR FUTURE**

OUR PLANET EDUCATORS' PACK

OUR PLANET NETFLIX | WWF

“YOUNG PEOPLE ARE THE FUTURE OF OUR PLANET. WE MUST EQUIP THEM WITH THE INFORMATION, INSIGHT AND PRACTICAL SKILLS TO UNDERSTAND THE IMPORTANCE OF BIODIVERSITY – BOTH INTRINSICALLY AND FOR THE SURVIVAL OF HUMANITY. EDUCATORS HAVE A KEY ROLE TO PLAY IN PREPARING YOUNG PEOPLE FOR THE CHALLENGES THAT LIE AHEAD. THERE CAN BE NO GREATER LEGACY THAN GIVING YOUNG PEOPLE THE TOOLS THEY NEED TO SAVE OUR PLANET.”

SIR DAVID ATTENBOROUGH

OUR PLANET, THEIR FUTURE

WWF's Living Planet Report, released in 2018, revealed the scale of human impact on our precious natural world. The Netflix original documentary series Our Planet tells the story of the one place we all call home, because if we understand our planet, we can create a future where we all thrive.

Today's young people will be the stewards of our planet in the years to come, and the future of all life depends on them gaining the knowledge, skills and passion for nature necessary to transform humanity's relationship with the natural world and build a more sustainable future.

This educators' pack is designed to be used alongside the wealth of free videos and interactive tools on OurPlanet.com. The resources delve deeper into the biomes and issues highlighted in the Our Planet series, but it is not necessary for students or staff to have seen the series itself to benefit from these activities and resources.

INSPIRE

- Bring the story of our planet to life for young people with the wealth of spectacular videos available for free on OurPlanet.com. These videos can be used to support lessons in geography, science, media studies, citizenship, environmental education and more. Use the Our Planet guide to using video in the classroom to stimulate constructive discussions and engaged critical thinking.
- Highlight how young people worldwide are already taking action to create a sustainable future for our planet – follow the Youth Voices for Our Planet blog.
- Introduce the story of Our Planet to youth audiences using the Our Planet Powerpoint presentation.

CONNECT

- Draw on our free downloadable primary and secondary classroom resources and educator guides to build a deeper understanding of our living planet, the links between our lifestyles and the health of the natural world, and the actions needed to bring our planet back from the brink.
- Seize unique opportunities to connect live with inspiring guest speakers and projects around the world via Skype in the Classroom, bringing the topics and issues of Our Planet to life.
- Get outside and discover the natural world around you with the Our Planet Seek app.

ACT

- Get involved in the Our Planet global citizen science project with iNaturalist.org, and join a worldwide network of youth-led biodiversity action projects.
- Speak up and add youth voice and pledges of action to the global movement to save our planet.

OUR PLANET EDUCATION & YOUTH RESOURCES

- **Reporting on our living planet**
  A youth-orientated summary of WWF's Living Planet Report 2018, with facts and stats about the current state of our planet and the urgent need for action to reverse the decline of wildlife.
- **Our Planet assembly pack**
  Customisable PowerPoint and presenter guide for a teacher or student led presentation on the state of our planet and the path to a sustainable future (suitable for ages 7-16)
- **Classroom biome resource packs x 5**
  Youth-orientated briefings, educator notes and worksheets for Forests & Jungles, Seas, Frozen Worlds, Freshwater and Grasslands (suitable for ages 7-11)
- **Our Planet Futures Summit toolkit**
  A toolkit for a 0.5 - 2 day workshop in which young people roleplay an international summit and seek to define a sustainable future for our planet (suitable for ages 11+)
- **Our Planet live**
  Skype in the Classroom microsite with a range of exclusive and unique opportunities for live guest speakers, virtual field trips and international classroom collaborations associated with the topics of Our Planet (all ages)
- **Seek for Our Planet**
  A special app for android and apple devices, created by iNaturalist and WWF, that helps any budding naturalists to find and identify local wildlife. Earn in-app badges and participate in monthly global challenges.
- **Citizen Science for Our Planet**
  A toolkit for schools, colleges, universities and youth groups. Use iNaturalist, the new Seek app, or the offline recording tools provided to monitor local biodiversity and initiate a biodiversity action plan to improve conditions for wildlife in your community (Launching June 2019).

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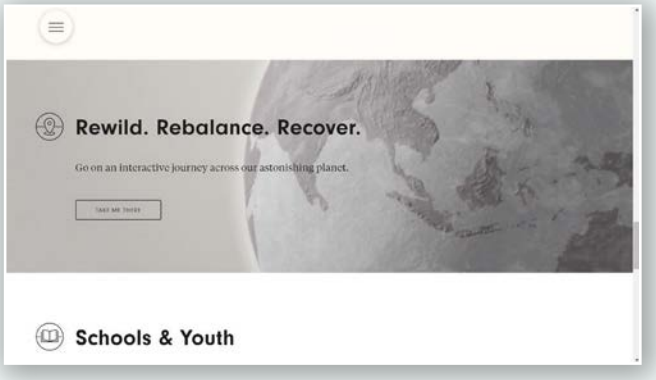
USING OURPLANET.COM IN THE CLASSROOM



The Our Planet series, streaming on Netflix, illustrates how the different biomes, species and natural systems of planet Earth connect and support each other to maintain human life and all the living things with which we share our home. The rich content and interactive tools on OurPlanet.com dives into more detail about the key species, locations and processes mentioned in the series.

The Our Planet website has two key sections that offer stimulating opportunities for teacher-led or student-led learning.

Discover
Browse a searchable library of high quality videos perfect for classroom inspiration and student-led research into the places, species, and issues featured in Our Planet.

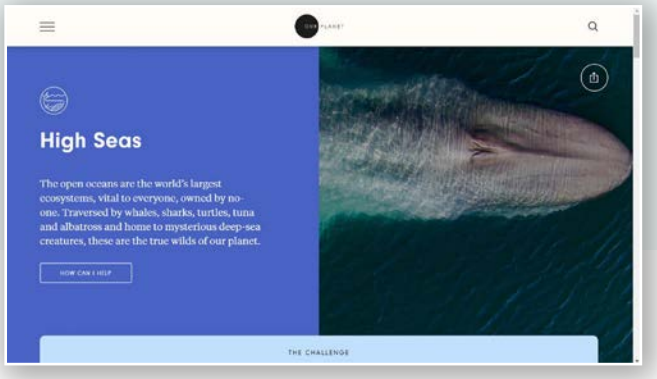
Videos are grouped into sections to match the focus of each episode of Our Planet. The first section, Our Story, looks at the big picture, with a selection of unique perspectives and insights into the state of our planet and how we got to where we are today.

If you are working with younger age groups or sensitive young people we advise viewing the videos before screening them in the classroom or assigning playlists for students to watch independently, in case of content or messaging that could cause distress.

Explore Our Planet
The explorable globe allows individual students, small groups or whole classes to embark on a voyage of discovery into the interconnected workings of our planet. As they follow connections around the planet, short videos pinned to the globe bring concepts and locations to life.

Student-led
Students may be assigned research tasks in the form of a topic presentation task or a quiz sheet, and through seeking the information required they will gain a valuable insight into the connections between topics and issues.

Teacher-led
The explorable globe makes a perfect visual aid for interactive whiteboards, especially for geography lessons. It allows you to illustrate the locations of focus species and biomes, and the scale of impact of human behaviour on our planet over time. Switch information layers on and off to suit the focus topic.



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OUR PLANET VIDEO

DISCUSSION GUIDE FOR EDUCATORS

OurPlanet.com provides a wealth of high quality video content that can introduce new ideas and stimulate discussion amongst students of all ages. The following tips will help you make the most of this free bank of videos and the insight they bring to the current state of our planet and the decisions we must make for the future.

1. Provide a framework

It is useful to give some context for the video before playing it, so that students have a sense of why they are watching it and how to frame their thoughts about what they see. It might not be that you tell them anything about the content, but you could ask them to hold certain questions in mind when they are watching. These could include:

a) How does this video make you feel?

b) What is the message of this video?

c) Where was this video filmed and what can we tell about that place?

d) How do you think the film-makers created the video? What challenges might they have faced?

2. Capture ideas and perspectives while they are fresh

Give your students sticky notes to write their thoughts down as they watch the video. You could give them different coloured notes for 'happy', 'sad' or 'surprising' thoughts, or restrict them to noting down single words that convey the feelings and themes they feel are brought up by the video.

After the video has finished you can use these as a starting point for discussions in pairs, small groups or the whole class. Alternatively, you can ask everyone to stick them up on the wall and see what common themes emerge.

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3. Give time for reflection

Watching a video is a private experience, and each student may pick up on different aspects of the video as interesting, moving or surprising. It can be very valuable for students to hear a range of different perspectives on a video and can help them to understand that people see things differently and that there is more than one valid viewpoint. There may be scientific facts in the video, but every viewer may feel a different response to these facts, and may have different opinions about the way the video communicates those facts.

Give the students some quiet time after viewing a video to compose their thoughts and make notes. This allows them to gain confidence in their perspective before they hear another from a teacher or fellow student, which might otherwise influence them.

4. Encourage diverse perspectives

When students start voicing their thoughts about a video, ensure that your prompts and reactions don't lead your students towards one particular reading. You can praise an interesting or eloquently expressed response without suggesting that it is the 'correct' response. When you have heard one student's thoughts you can invite diversity by asking specifically if any other student has a perspective that is completely different or even opposed.

5. Let the students lead

One of the best ways to avoid influencing your students' reactions and missing out on interesting and unexpected observations is to stay out of the discussion altogether. Introduce a structure for student-led discussion of videos and use it whenever you show content in class. Over time the students will increase in confidence and these discussions will become more and more fluid.

This set of rules provides a good starting point for student-led discussions.

1. Every student contributes – however briefly
2. Respect every contribution by listening attentively and quietly
3. Every contribution should respond constructively to previous contributions by including at least one of these three elements:
   a) Agree with a point made in a previous contribution and explain why you think the same
   b) Build on a point made in a previous contribution to explore an idea further
   c) Challenge a point made in a previous contribution by explaining why you see it differently
4. When finished, select the next student to contribute until everyone has spoken.

This format encourages active listening and avoids students straining to get attention so that they can make a point, which is distracting for them and other students.

© Gisle Sverdrup / Silverback Films / Netflix

6. Build suspense

Students will be especially attentive if they are curious about what they are about to watch, or if they have built up expectations that they are eager to test.

One way to create this sense of suspense is to give some details about the video or its subject and ask the class to discuss their ideas for what they might be about to see. For example, you could say that the video is to do with their project on African grasslands, but is filmed in a restaurant in New York. Their theories – or lack of them - about what the connection could be will increase their anticipation of the film itself and add an extra dimension to the discussion afterwards.

Alternatively, you could start to play a video and then pause it halfway through for a discussion about what they think will happen next and what they think will be the key message of the video.

7. Embrace the magic of the movies!

A huge amount of work goes into creating high quality films – especially natural history documentaries capturing elusive and unpredictable wildlife in environments that are dangerous or difficult for humans. Our Planet offers spectacles and insights from the natural world that have never been captured in such high quality before, and there is every reason for you and students to get excited about watching them. The tips above can ensure that the videos provide a jumping off point for a rich educational journey, but should not detract from the joy and wonder felt by students in watching the videos in class.

Dim the lights, maybe even crack out some popcorn, and let the videos take you and the class on a journey. You might wish to view videos twice on either side of a discussion, so that students can relax into the experience without worrying about missing details they need for a class analysis. Alternatively you could end a lesson with a viewing of the next video up for discussion in a future lesson – or one chosen by the students from a selection that will not be subject to analysis.

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OUR STORY

OUR BALANCED PLANET

Our planet has evolved over billions of years to form the carefully balanced system that now gives us all that we need to stay alive. We could think of it as a huge tree of life, with millions of leaves. All the leaves are connected, keeping the tree alive. If one branch, or too many leaves, on the tree is damaged then the consequences for the whole tree can be devastating. In the same way, all life on Earth is connected.

© Sophie Lanfear / Silverback Films / Netflix

Our planet is made up of huge areas called biomes. These are places where animal species have adapted to the climate and plants in their environment. The spectacularly beautiful frozen poles of the Arctic and Antarctica are one biome that most people never visit. Grasslands, which may be called the prairies in the United States or savanna in Africa, are vast spaces roamed by grazing animals. The temperature, amount of water or light, and soils shape what life exists in a biome. Biomes can contain many different ecosystems.

© Ben Mcdonald / Silverback Films / Netflix

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EVERYTHING IS CONNECTED

Our planet is so vast that it can be easy to forget how delicately it is balanced. Each biome is closely connected to the others and a change in one will affect the others. Like throwing a stone into a pond, the ripple effect of any changes touches every part of our planet.

Forests are more than just a collection of trees. They are a set of ecosystems which are home to the greatest variety of species on earth. If we cut them down, we don't just lose the clean air that we breathe. We set off a series of knock-on effects that can be felt across the planet. If less carbon is absorbed by forests global warming increases. This in turn will lead to the melting of the ice caps and rising sea levels which could see cities such as Mumbai and New York flooded within the next 100 years.

SPECIAL QUALITIES

Our planet has special qualities that help it stay healthy. We can think of these as the building blocks for our planet's life support system. Each one can be linked to a different biome.

Space (grasslands)
Huge expanses of land where animals can migrate over hundreds of miles in their search for food and water.

Resilience (forests)
The ability to bounce back and grow again after extreme events such as fires or drought.

Diversity (jungles)
A rich variety of life which sees thousands of species interact in a complex web.

Flow (freshwater)
A constant flow of fresh water that keeps all living things alive.

Ice (frozen worlds)
An 'air-conditioning system' that keeps our planet cool while supporting diverse life in the harsh polar regions.

Abundance (coastal seas)
Oceans teeming with life, where thriving populations of smaller creatures ensure food for larger predators and humans.

Hotspots (High seas)
Places in the ocean where nutrients rise from the bottom and cause concentrations of diverse life.

A NEW EPOCH

Today our planet is facing its biggest challenges ever – and that's because of us. Human activity is changing every part of our planet. These changes are so great that scientists are saying that we have entered a new age – the Anthropocene epoch, meaning 'the age of humans'.

Humans have only been around for 200,000 years, a tiny sliver of time in comparison to the 4.6 billion years of our planet's history. Yet in that time we have had a greater impact on our planet than any other species – and our impact is increasing. We have spread into almost every part of the planet, cutting down forests to create farm land and, over time, settling into huge cities. Technological changes have led to the growth of industries and we now consume more of the earth's resources than ever before.

OUR ACTIONS HAVE LED TO CLIMATE CHANGE, AS WE CONTINUE TO BURN VAST AMOUNTS OF FOSSIL FUELS, PUMPING CARBON DIOXIDE INTO THE EARTH'S ATMOSPHERE.

FACING THE FUTURE

Climate change means that today one in six species on our planet is at risk of extinction and the total number of mammals has decreased by a quarter since 1970. Our planet's wildlife is being pushed into an ever-smaller area, with just a quarter of ice-free land considered wild today, compared to half three centuries ago.

In this new epoch, we face stark choices. If we continue to take more from our planet than we put back then we risk its very survival. But this could also be an epoch of opportunity. We understand what is happening and how we can change the way we live to shape a better future for our planet, where human beings can thrive alongside nature. By making the right choices now we can nurture our planet's special qualities and protect the Earth for many generations to come.

ACTIVITIES

These activities for classes or youth groups are intended to allow young people to develop their critical thinking skills and participate actively in their learning. Through discussion and debate they will explore their own values and attitudes, and by looking at issues that are important to them and their future it is hoped that they will develop a commitment to playing a part in shaping a brighter future for our planet.

WE ARE ALL IN THE SAME BOAT

ACTIVITY 1

AGES 8 – 14

20 MINUTES

This introductory activity may be used across the age range 8 – 14 years. Young people use a cartoon as stimulus material to develop a deeper understanding of the concept of interdependence. Cartoons can be a useful way of engaging young people's interest in an issue as they decode the immediate and then explore the 'bigger picture' of the message that it conveys.

LEARNING OUTCOMES

- Young people will build their understanding of the concept of interdependence
- Young people will consider the effective use of cartoons
- Young people will develop their group work skills

RESOURCES NEEDED

- A copy of the cartoon. Show this on the interactive whiteboard or photocopy one for each group of 4 young people.
- A large sheet of paper and pens for each group of 4 young people.

WHAT TO DO

Show young people the cartoon and ask them, in groups of four, to look closely at the image. What is happening in the picture? What is the main message that the cartoon is trying to convey? Do they think that the cartoon conveys this message well? What might be a good caption for the cartoon?

Now use the cartoon to draw out the concept of interdependence. Ask them to write the word in the middle of a large sheet of paper and around it note down as many thoughts as they can. Young people should note down everything at this point, without discussion. After a short time, bring the whole class together and ask each group to share their ideas before coming to a shared class understanding of the term.

Link this back to the cartoon and consider the idea that everything on our planet is connected. Can young people think of some examples of this? For example, if we all ate less meat then it is likely that less grassland and forest would be cleared to make way for agricultural production.

Finally explain to young people that they will be deepening their understanding of interdependence in the next lesson.


What are you doing?! STOP!!!
Why should I? I'm only drilling under my own seat!
Diversity
Resilience
Community

BIOME BULLETINS

ACTIVITY 2

AGES 8 – 11

TWO SESSIONS 50 MINUTES

This part of the lesson, which spreads over two sessions, is aimed at young people aged 8 – 11, and further develops their understanding of the concept of interdependence. After considering the special qualities of our planet's biomes young people go on to create news reports from each one.

LEARNING OUTCOMES

- Young people will understand the importance of different biomes and their qualities for the future of our planet.
- Young people will use their knowledge and understanding to write a short news script
- Young people will develop their presentation skills
- Young people will develop their group work skills

RESOURCES NEEDED

- Four of the Special Qualities sheet, cut up, so that each pupil (in a class of 28) has one statement. Note that you may need to duplicate some statements if you have more than 28 young people.
- A set of the Biome Pictures, pinned up around the classroom.
- A copy of a different Biome Briefing sheet for each group of 4 young people.
- A brief news report on an environmental issue to show to the class.
- One copy of the News Report task sheet for each group of 4 young people.

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WHAT TO DO

SESSION 1

If Part 1 was carried out during a different session you will need a quick recap on the concept of interdependence. We, together with every living thing, depend on our one planet, Earth. If we look after and protect it then it will go on providing all that we need long into the future. It's up to us!

Give each pupil a slip of paper with a Special Quality on it. Ask them to move around the classroom telling others what their Special Quality is and exploring it together. After a short time ask young people to find others with the same Special Quality. In their groups they should think together about which biome their Special Quality might be linked to. Once everyone has decided, each group should move to stand in front of the relevant Biome picture.

Now ask each group to take the Biome Picture to their table and give each one the relevant Biome Briefing sheet. Ask young people, as a team, to read the sheet and consider the following questions:

1. What are the characteristics of this biome? Think of the climate, habitats, species that live there etc.
2. Why is this biome important? What special qualities does it have?
3. What threats are there to the biome?
4. How can the biome be protected?

Finally explain to young people that they will be working together to produce a short report with an item of news from their biome. Can they think of an issue that would be particularly relevant to their biome? For example, overfishing means that nine out of ten valuable large fish have been removed from the world's oceans.

SESSION 2

Begin the session by recapping on some of the challenges to their Special Qualities that biomes face. Explain to young people that they are going to produce a short news report on some of these issues. Show a recent news report on an environmental issue and consider together what the key parts of a good news report are. These might include an introduction where the reporter explains the story, interviews that present different viewpoints, a summary of the main points and a lead in to the next news item.

In their groups ask young people to write a short news script using the News Report task sheet. They should agree on each person's role (news presenter, interviewer, interviewees, camera person etc). Once young people have had the opportunity to write their scripts, give them time to rehearse and film them. You may wish this to take place over several lessons, but doing this activity relatively quickly and spontaneously also works well.

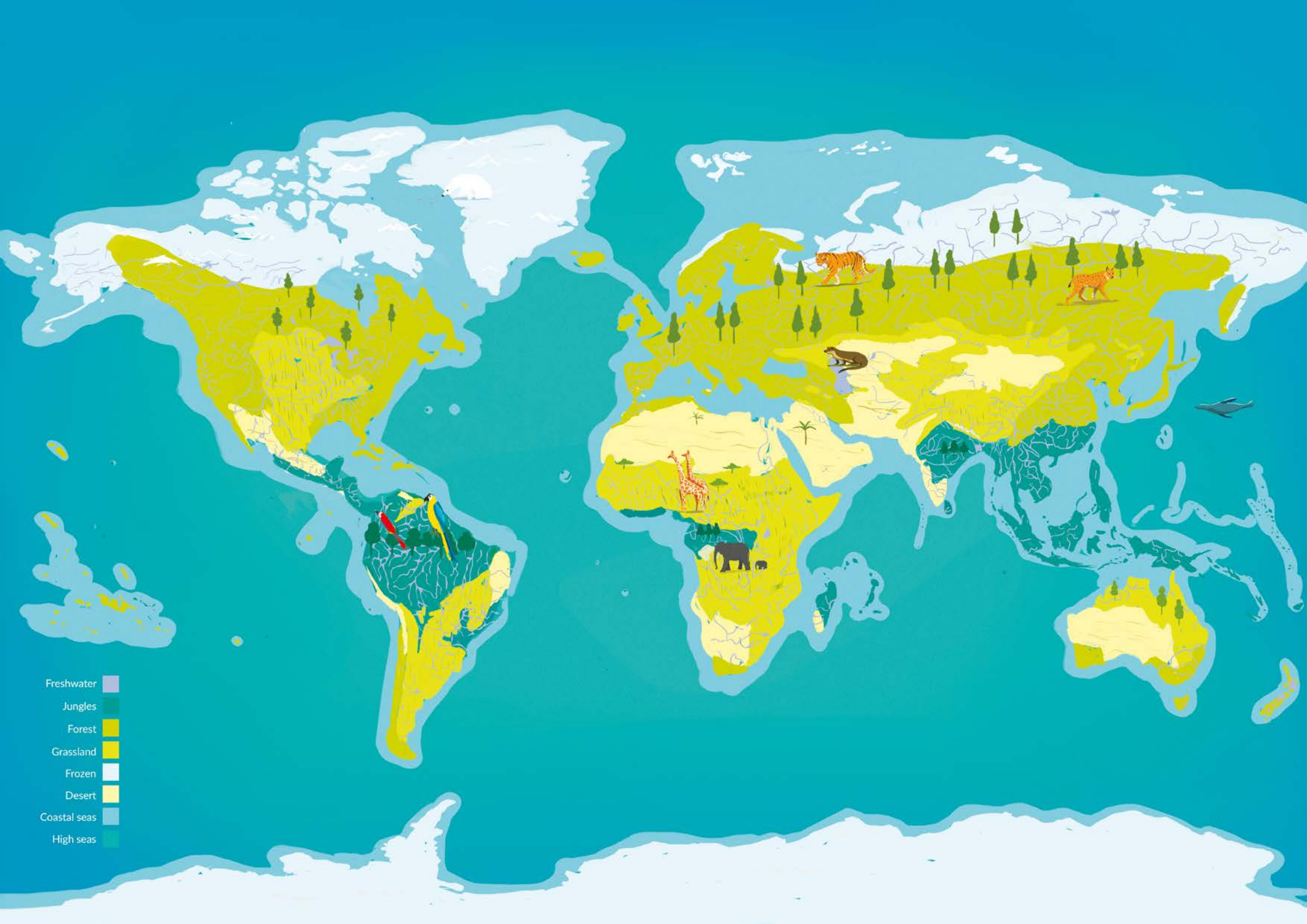
Once the films have been made, allow each group time to show their news report to the rest of the class.

EVALUATION/REFLECTION

Young people should think about what worked well in each news report and what could be improved. Did the messages come across clearly? Refer back to the cartoon and ask young people what they have learned about interdependence. Can they think of some action that they can take to protect the Special Qualities of our planet's biomes?

EXTENSION WORK

Edit the ideas into a film that could be shown in a school assembly.


Freshwater
Jungles
Forest
Grassland
Frozen
Desert
Coastal seas
High seas

NEWS REPORT WORKSHEET

Every biome on our planet provides us with something special that we need to survive. You are going to prepare a script for a news report from your biome. You'll be reporting on an event that's taking place and will need to make sure that everyone who watches your report will be encouraged to do something to protect our precious planet.

Here are some handy tips to remember as you write your news report script.

GET A GOOD STORY

- What makes this story important?
- Why will it be interesting for your audience?
- Telling the story to a friend will help you get your main ideas clear.

HOOK PEOPLE IN

- How are you going to present the story in a way that makes people want to watch?
- Who will you interview? Having two interviewees with different viewpoints helps.

GET THE INFORMATION ACROSS

- What is happening?
- Why is it happening?
- Who or what is affected?
- How has this happened?
- Guide your audience through your story

AND REMEMBER...

- Keep your script short and snappy
- Write as you speak and try to keep your script informal.
- Use short, clear sentences.
- Make sure that your message is clear – tell people what they can do.
- Don't let the interviews go on for too long – a few sentences are all you need.
- Say who the interviewees are and where they come from.
- Remember to thank interviewees.
- Summarise your report at the end and remember to sign off and introduce the next item.

EXTENSION ACTIVITY
Prepare and film the news report, including images or footage sourced online.

BUILDING BIOMES

ACTIVITY 3

AGES 11 – 14

1 HOUR

This activity allows young people to exchange information in an interactive way and then use it to explore what steps can be taken to protect the Special Qualities of the different biomes on our planet.

LEARNING OUTCOMES

- Young people will become familiar with the concept of interdependence
- Young people will reinforce their own learning by sharing information with others
- Young people will reflect on what steps they can take to bring about change
- Young people will develop their groupwork skills

PREPARATION AND CLASSROOM ORGANISATION

You will need a fairly large space so that young people can move around easily.

RESOURCES NEEDED

- A copy of the Biome Factsheet. You will need to cut this up so that each pupil can be given a slip of paper. There are 28 slips in total so you will need to duplicate several if you have larger numbers of young people.
- The biome images from the Our Planet assembly pack, printed and stuck up around the room.

WHAT TO DO

Recap on the introductory activity and the concept of interdependence. Then give a slip of paper with a statement from the Biome Factsheet to each pupil explaining that they are going to be sharing this information with others. Ask them to read their statement to make sure that they understand it.

Now ask young people to move around the room sharing their statement with as many people as possible. They should add in their own knowledge and explain their statement by giving examples if they can. Young people should also discuss links between their own statements and those of others.

After young people have had the chance to share their information, if they have not naturally already done so, ask them to form groups with those whose statements link to their own. Draw attention to the Biome Pictures around the room and ask each group to move to the picture of the biome that they feel is most relevant to their group.

EVALUATION/REFLECTION

In their groups, ask young people to think about how the Special Quality of their biome contributes to keeping our planet healthy. Our planet is made up of a system of inter-connected, wild habitats. None can work alone and to thrive we all need to work in harmony with nature. It would be helpful to refer back to the cartoon and the concept of interdependence.

Finally, ask young people to discuss with a partner what practical steps can be taken by themselves or the wider school community that will help preserve the special qualities of their biome. For example, encouraging people to eat fish that has an MSC label will help ensure that oceans are protected.

BIOME FACTSHEET

SPECIAL QUALITY

Our planet has space. Grasslands once covered a quarter of the Earth. Their fertile soils make them perfect for farming. This space has been used by people for 10,000 years to grow crops and support herds of livestock.

SPECIAL FEATURE

Grasslands support huge numbers of grazing animals such as zebra, antelope and wildebeest which need space to roam and feed.

THREATS

As more and more land is used to grow crops and feed livestock, animals are forced to compete with people for space.

By 2000 over 45 per cent of temperate grasslands had been converted for use by people.

WHAT CAN WE DO?

We can stop our planet's space being given over to huge plantations that grow just one crop.

With farming methods improving all the time we can grow all we need using less space.

SPECIAL QUALITY

Forests cover one-third of our planet's land. They have the resilience to survive harsh conditions and spring back to life after severe setbacks.

SPECIAL FEATURE

About 30 per cent of our planet's land is covered by forests which can survive extreme conditions such as fires, drought or cold.

Some forest trees produce seeds which have a tough outer coat and need fire to germinate.

THREATS

Around 1.6 billion people depend on forests for their living.

Yet forests are being cleared to make way for agriculture – an area of forest the size of 27 football fields is cut down every minute.

WHAT CAN WE DO?

People have used forests for thousands of years but they lose their resilience if too much is taken from them.

We need to manage forests sustainably so that their natural resilience can help them survive.

BIOME FACTSHEET

SPECIAL QUALITY

Biodiversity is the huge variety of animals and plants, and the places that they live, which give us all we need to survive.

The Amazon rainforest is thought to be home to 10 per cent of all known species on Earth.

SPECIAL FEATURE

Jungles are home to more species than any other land habitat, with many still undiscovered.

The biodiversity of jungles has given us medicines. Seventy per cent of the plants that can be used to make anti-cancer medicines are only found in jungles.

THREATS

The growing demand for products such as timber, minerals, beef and agricultural commodities (such as soybean and palm oil) means that jungles are being cut down.

Our planet has now lost half of its natural forests.

WHAT CAN WE DO?

We need to make sure that we do not take too much from jungles.

We can make sure that logging is done responsibly. Managing cattle and agriculture better and encouraging the production of non-wood products (such as wild rubber or nuts) will help to protect the biodiversity of jungles.

SPECIAL QUALITY

Less than 1 per cent of the world's water is fresh and accessible.

Yet freshwater habitats, such as lakes, rivers and wetlands, are home to more than 10 per cent of all known animals and about 50 per cent of all known fish species.

SPECIAL FEATURE

A flow of water is needed for drinking, growing crops, manufacturing, producing energy, and transport. Freshwater provides fish that feeds tens of millions of people.

Wetlands prevent flooding and help keep nature clean and healthy by dissolving polluting materials.

THREATS

Dams divert and disrupt the natural flow of rivers, which affects wildlife and people.

About a quarter of the world's river basins run dry before they reach the sea because so much water has been taken from them.

WHAT CAN WE DO?

To keep water flowing, all users need to work together.

Protecting rivers from pollution, not taking too much water, and planning and managing dams carefully will all protect these vital habitats.

BIOME FACTSHEET

SPECIAL QUALITY

Ice covers nearly 11 per cent of the Earth's land area, with Antarctica accounting for about 85 per cent of this.

The Arctic is a frozen ocean. With its vast sea ice, it covers over one sixth of our planet's surface.

SPECIAL FEATURE

The ice edge is a critical habitat for many species. When sea ice melts it releases freshwater and nutrients, making it a very important feeding zone.

The ice-covered polar regions help regulate the Earth's climate. The whiteness of the ice sheets reflects heat from the sun and the darkness of the polar oceans absorbs it.

THREATS

Most scientists agree that burning fossil fuels is causing the polar ice to melt, threatening the future of our planet.

With less sea-ice, the oceans are becoming warmer and sea levels are rising. Coastal areas, including many large cities such as New York and Mumbai, are at risk of flooding.

WHAT CAN WE DO?

We need to act now to stop the climate change which is threatening the polar regions.

Every one of us can reduce our carbon footprint by taking simple steps such as using less electricity, walking or cycling to school, or eating less meat.

SPECIAL QUALITY

The coastal seas are one of the most densely populated areas on earth. About 70 per cent of the world's population lives within 60km of the coast.

Many communities of animal species find food, protection from predators and safe places to breed and raise young in shallow coastal waters.

SPECIAL FEATURE

Shallow coastal waters, including estuaries, salt marshes, and mangrove forests, teem with life.

Coral reefs are home to a quarter of all marine life on the planet.

THREATS

Over 700 million people around the world depend on fishing for their livelihoods.

Yet around one-third of important marine habitats such as seagrass beds, coral reefs and mangroves have been destroyed.

WHAT CAN WE DO?

We must take care of all parts of the coastal seas communities if they are to continue providing us with food.

We need to fish responsibly, not taking too much, and begin protecting coastal environments we can enjoy them long into the future.

BIOME FACTSHEET

SPECIAL QUALITY

The oceans cover more than 60 per cent of our planet's surface.

Their surface waters teem with microscopic life which create feeding hotspots for many marine species.

SPECIAL FEATURE

Across the vast blue stretches of the ocean concentrations of tiny sea creatures called plankton form hotspots and provide food for many species higher up the food chain, including sharks and whales.

Microscopic algae, called phytoplankton, also absorb carbon dioxide from the air and convert it into the oxygen that we breathe.

THREATS

We are taking too much from the oceans by overfishing.

Today 90 per cent of valuable large fish have been removed from the world's oceans. This threatens to turn them from hotspots for life to empty blue deserts.

WHAT CAN WE DO?

We need to bring in laws to protect the oceans. Only around 4 per cent of the world's oceans are currently protected.

Marine protected areas will allow fish to grow in size, numbers and varieties found so that the oceans can stay healthy and provide for people and animals alike.

OUR PLANET SCHOOL DISPLAY

ACTIVITY 4

© Gisle Sverdrup / Silverback Films / Netflix

AGES 5 – 11

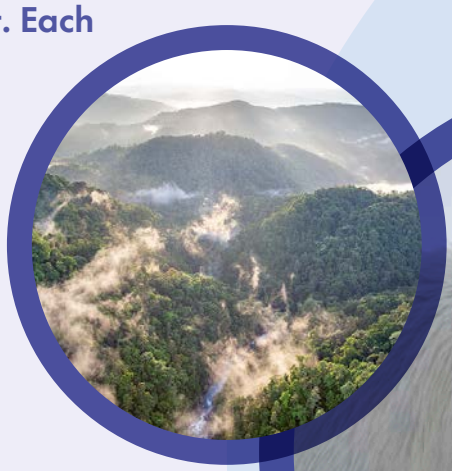
30 - 60 MINUTES

Create a planet earth display using photo montage, natural materials or recycled rubbish that you have collected in a litter pick.

Around the planet you could place key facts about species, places or issues to inform your school community about the state of our planet. Each class could research a particular country or biome and display their pictures and facts around the planet with wool and pins to the relevant locations.

EXTENSION ACTIVITIES

- Create a way for students and teachers to add their name and personal pledges for our planet to the display.
- Use this display as the centrepiece to showcase work from a year of environment-focused projects and activities, or to show the results from a school nature photo / drawing / poetry challenge.
- Display environment-themed news stories clipped from newspapers and magazines around the planet throughout the term.



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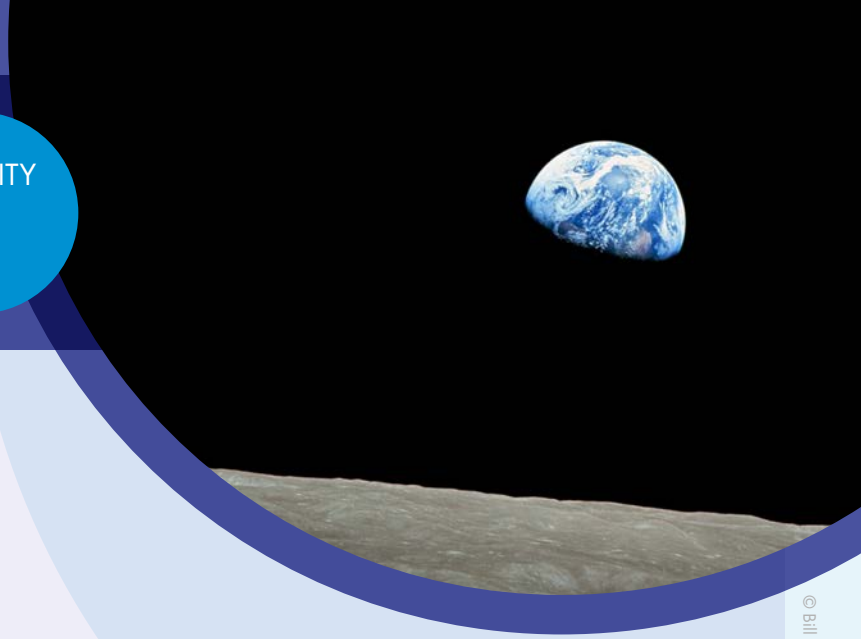
OUR PLANET NETFLIX

WWF

EARTH FROM SPACE

ACTIVITY 5



© Bill Anders / NASA

AGES 5 – 16

30 MINUTES

This activity is suitable for any age, and is aimed at prompting discussion of how our attitudes to our planet are shaped by scientific understanding and by imagery. The discussion prompts provided are loosely split by primary and secondary age ranges, but the focus of the discussion can be adapted to fit the ability of a group and the learning objectives of a lesson.

Show the Anders Earthrise photo from the Our Planet Assembly Pack Powerpoint, or distribute printed copies for young people to discuss in pairs or small groups.

Explain the story behind the photo:

Earthrise is a photograph of Earth and some of the Moon's surface that was taken from lunar orbit by astronaut William Anders on December 24, 1968, during the Apollo 8 mission. The astronauts would have seen earth 'rise' above the lunar landscape but in fact it was them that were moving around the moon towards the side facing earth. The moon is locked in 'synchronous rotation' with earth which means it is always the same side that faces our planet, so for an astronaut standing on the surface of the moon earth would remain in the same place in the sky.

Give the group some or all of the following prompts. These are best given on at a time to ensure that time is spent on each.

PRIMARY

1. What thoughts or feelings does the photo inspire in you? Write a list of words.
2. What features or qualities of planet earth can you see from this distance? What can you not see?
3. If you were an alien visitor to planet earth and this was your first sight of our world, what would you think?
4. Humans used to think that they lived on a flat surface. How do you think might change the way people think or behave to know that the earth is a ball floating in space?
5. You and every other human who has ever lived was born on this ball of rock and water floating in space. It is the only place where the land, food, water and air that we need to survive can be found. We now know that we are using up more of these resources each year than the planet can replace. If you could write a message in huge letters on the moon so that everyone on planet earth could read it, what would it say? (Images of the moon could be printed out for these messages to be written on).

SECONDARY

1. Consider why this photo has been described as "the most influential environmental photograph ever taken".
2. Humans knew that the earth was round and floating in space long before this photo was taken. Why might it make a difference for us to see it with our own eyes?
3. Looking at this photo, list the ways that you think different parts of the planet may affect each other directly. Think about natural processes and human activity.
4. Can you think of an image that might be taken now or in the future and have a similar impact in how it makes people feel about the planet?


© Bill Anders / NASA

SPECIAL QUALITIES SHEET

OUR PLANET NEEDS...

SPACE

Huge expanses of land where animals can migrate over hundreds of miles in their search for food and water.

RESILIENCE

The ability to bounce back and grow again after extreme events such as fires or drought.

DIVERSITY

A rich variety of life on earth which sees thousands of species interact in a complex web.

FLOW

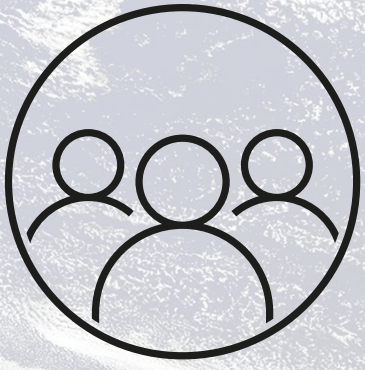
A constant flow of fresh water that keeps all living things alive.

ICE

An 'air-conditioning system' that keeps our planet cool while supporting diverse life in the harsh polar regions.

ABUNDANCE

Oceans teeming with life, where thriving populations of smaller creatures ensure food for larger predators and humans.



HOTSPOTS

Places in the ocean where nutrients rise from the bottom and cause concentrations of diverse life.