



so what?

Saving our world's habitats & animals together!

Age 7-11 Teaching Pack



Tiger

So What?

About Us

The future of some of the world's most captivating animals is hanging in the balance! - So What? The mountain gorilla's habitat is being encroached upon by an ever-increasing human population! - So What? The tiger is being hunted to supply high value products such as skins, bones, tonics and meat! - So What? The lion's dwindling habitat has led to most of its populations becoming too small and isolated from one another! - So What?

So What? (Saving our world's habitats & animals together) is the UK based educational website that aims to bring wildlife conservation into the classroom. The purpose of So What? is to encourage more schools and teachers to run So What? clubs, or challenge their students to complete a So What? conservation research topic, all in order to help young people to learn more about the conservation of some of the world's most threatened animals.

The purpose of So What? is simple: to make it easier for schools and teachers to inspire a future generation of wildlife conservationists. A future generation which will not reply "So What?" when faced with the struggles of modern day conservation, but instead be dedicated to saving our world's habitats and animals together.

Matthew Payne

So What?

Website: <http://www.sowhatuk.com>

Facebook: <http://www.facebook.com/SoWhatUK>

Twitter: https://twitter.com/#!/SoWhat_UK

so what?

Contents Page

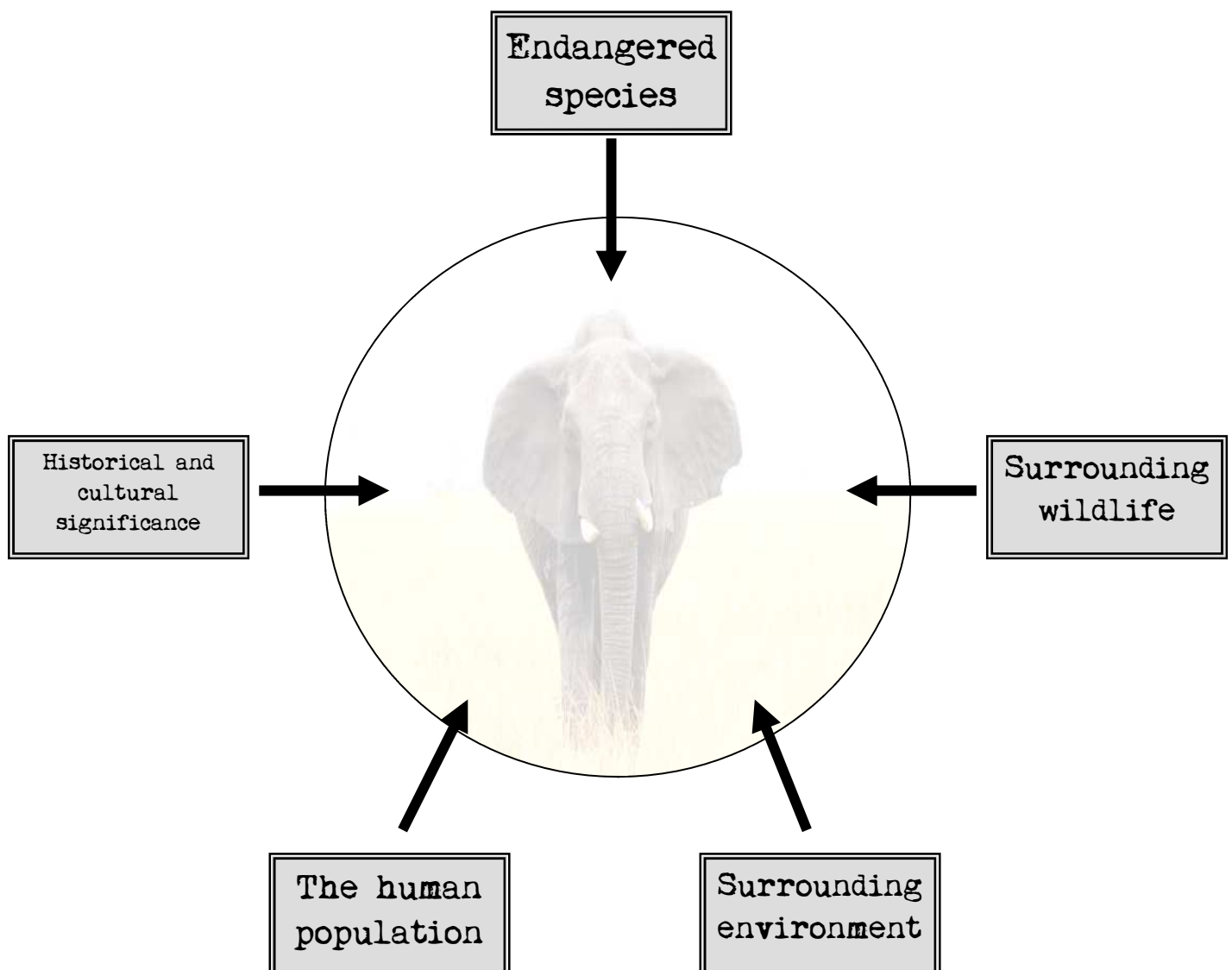
Contents Page

Education model	Page 4
Session titles	Page 5
Session objective overview	Page 6
Curriculum links	Page 7
What is a tiger?	Page 8
What other wildlife does the tiger live alongside?	Page 11
Where does the tiger live?	Page 14
What is the tiger's relationship with people?	Page 17
Buddha, the tigress and her five cubs	Page 20
How can we help the tiger?	Page 24
How did we do?	Page 30
Teaching pack resources	Page 33
Thank you	Page 48

so what?

Education Model

The So What? age 7-11 Education Model illustrates the holistic approach to conservation which the age 7-11 teaching packs take. The objective of the Education Model is to ensure that children taking part in the sessions learn about every issue a conservationist must consider when trying to preserve a threatened animal.



so what?

Session Titles

Endangered
species



What is a tiger?

Surrounding
wildlife



Which other wildlife does
the tiger live alongside?

Surrounding
habitat



Where does the tiger
live?

The human
population



What is the tiger's
relationship with people?

Historical and
cultural
significance



Buddha, the tigress and
her five cubs

Developing own
conservation
resource



How can we help?

Self evaluation



How did we do?

Session Objective Overview

Endangered
species



I can research factual
information about tigers.

Surrounding
wildlife



I know which other wildlife tigers live
alongside.
I can classify animals in groups.

Surrounding
habitat



I know which environments tigers live in.
I know how tigers are adapted to their
environments.

The human
population



I understand the relationship between
tigers and the surrounding human
population.
I can give my opinion clearly.
I can listen to and challenge the view
of others.

Historical and
cultural
significance



I can recount a traditional
story.

Developing own
conservation
resource



I can design and create my own
conservation advert as part of a group.
I can work effectively as part of a
group.
I can clearly explain the reasons behind
my choices.
I can present my advert clearly.

Self evaluation



I can critically evaluate the
effectiveness of my own conservation
advert.
I can make realistic suggestions about
how I could improve my advert.

so what?

Curriculum Links

Endangered
species



Literacy, ICT and science

Surrounding
wildlife



Numeracy, ICT and
science

Surrounding
habitat



Geography and science

The human
population



Speaking and listening

Historical and
cultural
significance



History and literacy

Developing own
conservation
resource



PSHE and depending on
the activity (E.g. T-shirt
design would be linked to
art)

Self evaluation



PSHE and literacy

What is a tiger?



session 1

What is a tiger?

Session objective:

I can research factual information about tigers.

Session opener:

For 3-5 minutes, get the children to note down everything they know about tigers on a sheet. It is important that this sheet is kept so it can be used at the end of these sessions to assess the impact of the So What? teaching pack.

Session introduction:

Share the children's facts from the session opener and mind map their findings on a interactive whiteboard (IWB).

Explain that today they are going to be researching facts about wild tigers.

In mixed ability pairings, ask the children to generate three questions they want to answer about tigers.

Less able or special needs children (SEN) may require teacher support. You may wish to challenge your more able children by asking them to come up with more questions, focusing particularly on

the tiger's anatomy and how it is built to help it hunt large prey.

Before researching, share questions as a class and note down good examples on the IWB, coloured paper or post—its. The questions could also be placed up on a display wall.

Mixed ability group work:

In mixed ability pairs, children should use laptops, or any available books, to research the answers to their questions. A list of recommended websites and books can be found in the resources section on the So What? website. If you do not have sufficient internet access, then you may wish to download facts for your children to read prior to this session from our list of recommended websites.

Challenge:

You may wish to challenge your pupils further by showing them a picture of a tiger and asking the pupils to research whether there is only one subspecies of tiger? If not, how many are there and where can they still be found in the wild? How can you tell each subspecies apart from one another?

session 1

What is a tiger?

Using A3 pieces of plain paper, children can note down the facts and answers they find through their research. Again, these sheets could be put up on a display after the session.

You also may wish to model how to make good notes from research prior to the children starting this activity.

For the mixed ability work, teacher support may be required to support the research and note taking of less able or SEN children. Own session outcomes regarding the number of facts researched should be set for this activity. These outcomes should depend on the ability of the children and the time available for research.

Encourage the children to add illustrations, but ensure that they label these clearly.

Extension activity:

If some groups finish early, show them a picture of a white tiger on the internet (You can find one in the resource section on page 34). Do not tell the children the cat's name, just ask them tell you the obvious differences from an orange tiger and challenge the

children to use the internet to find out more facts about it.

End of session review:

To assess the children's achievement, ask each group to share with another group on their table their facts about tigers, and if applicable, white tigers. Focus on how the tiger is built to hunt large prey. After this, ask the children to share with the class a group/ or individual, who they think has achieved today's objective and why.

Try to reinforce the main threats facing tigers (the children will hopefully have researched this anyway).

- Habitat loss due to the ever increasing human population.
- Loss of prey due to hunting and over-grazing of farmland.
- Trophy hunting and poaching.
- Conflict with humans over livestock.
- Lack of local and national law enforcement.
- Tigers are being hunted to meet the demands of the illegal wildlife trade market, e.g. the Asian medicinal market.

Which other wildlife
does the tiger live
alongside?



Session 2

Which other wildlife does the tiger live alongside?

Session objectives:

I know which other wildlife tigers live alongside.

I can classify animals in groups.

Session opener:

In talk partners, ask the children to list as many of the facts that they can remember from the last session about tigers. Mind map the facts on a IWB.

Session introduction:

Tell the class that in order to preserve a threatened animal such as the tiger, you must always consider the surrounding wildlife. Discuss as a class why they think this is important.

Explain that today the children are going to research the different types of wildlife that live in the same environments as the tiger.

Show the class the information collection sheet (from the resource section on page 35). Explain that they will be using this sheet to classify the animals they are researching. The sheet has a box for consumers, producers, tiger prey and not tiger prey.

Recap or explain to the class what consumers and producers are.

(Consumers eat other organisms, producers make their own food and are food sources for other organisms).

Quickly, model and share as a whole class how to fill in the sheet for a worm, elephant and quiver tree.

Time challenge (10-15 minutes):

In pairs, the children should use the internet to find as many names as they can of animals that live alongside tigers in Asia. The children must correctly classify the animals on their sheet. The pair with the most animals wins.

Show a larger version on the IWB and quickly fill in a selection of the children's findings.

Mixed ability paired work:

Children to use the internet to research facts and create a fact file either as a pair, or individually if they would rather, detailing facts about one of the animals that lives alongside the tiger.

Session 2

Which other wildlife does the tiger live alongside?

Must achieve:

To have at least four different sections in their fact file and a labelled diagram.

animals it lives alongside, as they may be just as important to its survival.

Should achieve:

To have at least five different sections in their fact file and a labelled diagram.

Could achieve:

To have at least five different sections in their fact file, a labelled diagram and a clear introduction and conclusion.

Teacher support should be focussed on the less able or SEN children who are working with other pupils.

Extension activity:

What is your chosen animal's relationship with the tiger? Is it hunted by the tiger or does it pose a threat to the tiger? How is it different to the tiger? Children to add this information to their fact file.

End of session review:

Share fact files with each other and discuss who has achieved the session objectives. Focus on the fact that in order to save the tiger, you must understand its relationship with the

Where does the tiger live?



Session 3

Where does the tiger live?

Session objectives:

I know which environments tigers live in.
I know how tigers have adapted to their environments.

Session opener:

Reinforce what an animal needs to live in an area. What do they think the tiger needs? Children to discuss in talk partners. List their ideas on the IWB.

Session introduction:

Tell the children that today they are going to learn where tigers live and why they are adapted to live in these habitats and not others.

Using the map on the IUCN website (<http://maps.iucnredlist.org/map.html?id=15955>), show the class the current range of the tiger within Asia.

Focus on populations which are fragmented from others. Ask the children what they think the problem with this is? Discuss how this is important for the conservation of species. If a population is isolated, it limits the animals' genetic diversity. Family members start breeding; this can result in lowered genetic diversity and

lead to them being susceptible to disease and/or physical defects.

Take the time to show the 13 countries which the tiger currently lives in and the locations of these countries in relation to each other and the UK. Ask the children how they might travel there from the UK as well as between each country. It should also be pointed out that in 1900 there were over 100,000 tigers living in Asia, where as now this number has been reduced to 3,200. Also, the tiger is extinct in 11 countries and its range has decreased by 93%. Six subspecies of tiger continue to survive, but 3 have gone extinct in the last 80 years.

Paired ability group work:

In talk partners, ask the children to discuss what they think a tiger needs to live in an area. Note down the children's suggestions on a IWB. Give the children, depending on ability, a number of habitat images and descriptions from around the world which can be found in the resource section starting from page 36.

Session 3

Where does the tiger live?

Tell the children their challenge is to read the description for each habitat and decide whether they think a tiger could live there.

Once they have made a decision for each habitat, they must write down or draw their reasoning, clearly explaining why a tiger may or may not live in that habitat.

Less able and SEN:

To examine four habitats and decide as a group, with teacher support.

Able:

To examine six habitats and give reasons for their decisions.

More able:

To examine eight habitats and give reasons for their decisions.

Extension activity:

Once completed, extend your pupils by asking them to choose an animal they think would live in each of the sixteen habitats and explain their choices.

End of session review:

As a whole class, decide which location/s

tigers live in and allow the children to explain their choices. The tiger can actually live in tropical grasslands, Mountain grasslands, dry forests, flooded grasslands, broadleaf forests, coniferous forests, tropical coniferous forests, marshes, mangroves, taiga and rainforests.

Reinforce that the loss of habitat is one of the main threats facing the majority of threatened animals from around the world. For any species to thrive, we must conserve its habitat and fully understand how it supports the local wildlife population.

What is the tiger's relationship with people?



Session 4

What is the tiger's relationship with people?

Session objectives:

I understand the relationship between tigers and the surrounding human population.

I can give my opinion clearly.

I can listen to and challenge the view of others.

Session opener:

Tell the children that the tiger is classified as an 'endangered' species.

Discuss with the class what they think this means and can they remember why the tiger is 'endangered.'

Session introduction:

Tell the class that tigers are an 'endangered' species that faces a number of threats to its survival in the wild, which are as follows:

- Habitat loss due to the ever increasing human population.
- Loss of prey due to hunting and over-grazing of farmland.
- Trophy hunting and poaching.
- Lack of local and national law enforcement.
- Tigers are being hunted to meet the demands of the illegal wildlife trade market, e.g. the Asian medicinal market.
- Conflict with humans over livestock.

The final reason is a particularly common reason for the decreasing tiger population. With more and more farms being created due to the ever expanding global population, this is surely going to continue to be a common threat to the tiger.

Conscience alley drama activity:

Imagine you are a farmer and you believe that some of your cattle have been killed by a tiger. Ask the class to consider what do they think they would do if they were in the position of the farmer. Carry out the conscience alley activity.

Note:

(Conscience alley is a drama activity where one individual, acting as the farmer, stands at the end of two parallel lines of children, who face one another. The farmer walks down the alley, listening to the advice from every child).

After this activity, explain to the class that a lot of farmers regard tigers as vermin or a nuisance which costs them a lot of money. Therefore, tigers who kill, or are believed to have killed livestock are sometimes snared, trapped, poisoned or shot on sight.

Session 4

What is the tiger's relationship with people?

Whole class debate:

Is it right for farmers to snare, trap, poison or shoot-on-sight tigers that they believe to have killed livestock? Split the class into two halves. One side is to argue in favour of the farmers and the other side is to argue against the farmers. For less able or SEN children, arguing against the farmers is often an easier concept to understand so it may be better to allow them to join that side. Allow the class sufficient time to formulate their arguments then move onto the debate, with the teacher acting as the chair.

Reinforce with the children that in order to conserve any threatened animal, we must understand the impact both local and global human populations have upon its survival. It is imperative that conservationists find a way to support the requirements of not only a threatened animal, such as the tiger, but also the local human population that lives alongside it every day.

End of session review:

After the debate, allow the children to vote for who they think is right. Have three areas (in favour, against and undecided) around the classroom for the children to move towards in order to indicate their vote. After a countdown, ask the children to move towards the correct area to indicate their vote.

Discuss the results as a whole class and the message they portray. Hopefully the debate will have shown that there is no clear answer when trying to manage the interests of both threatened animals and local communities.

Buddha, the tigress and her five cubs



session 5

Buddha, the tigress and her five cubs

Session objective:

I can recount a traditional story accurately.

Session opener:

Discuss what we mean by historical and cultural significance. How can an animal be culturally significant? Do they know of any animals which have been significant to people in the past? For example, cats and the Egyptians.

Session introduction:

Tell the children that the tiger is regarded as the "King of the Beasts" in the cultures of Eastern Asia, representing royalty, fearlessness and wrath. Its forehead is believed to have a marking which resembles the Chinese character 王, which means "king." Therefore, many cartoon depictions of tigers in China and Korea are drawn with 王 on their forehead.

The tiger is of great importance in Chinese mythology and culture, being one of the 12 Chinese zodiac animals.

Also, in various Chinese and martial arts, the tiger is depicted as an earth symbol

and equal rival of the Chinese dragon - both of which represent matter and spirit respectively.

In fact, the Southern Chinese martial art Hung Ga is based on the movements of the tiger and the crane. In Imperial China, a tiger was seen as the personification of war and often represented the highest army general, whilst the emperor and empress were represented by a dragon and phoenix, respectively.

The white tiger is one of the four symbols within the Chinese constellation. It is sometimes called the "White Tiger of the West", and it represents the west as well as the autumn season.

The widely worshiped Hindu goddess Durga is a ten-armed warrior who rides the tigress (or lioness) Damo into battle. In Southern India, the god Ayyappan was associated with a tiger.

The 'were-tiger' replaces the 'were-wolf' in shape-shifting folklore in Asia; in India, tigers were evil sorcerers, whilst in Indonesia and Malaysia they were somewhat more benign.

Session 5

Buddha, the tigress and her five cubs

The Tiger is the national animal of Bangladesh, Nepal, India (Bengal Tiger), Malaysian (Malayan Tiger), North and South Korea (Siberian Tiger).

In Buddhism, it is also one of the "Three Senseless Creatures", symbolising anger, with the monkey representing greed and the deer lovesickness.

(Source: Edited from Wikipedia)

Buddha, the tigress and her five cubs:

Read the tradition story, "Buddha, the tigress and her five cubs," together with the children. This can be given out on paper or shown on an IWB. Copies of this story can be found in the resource section on page 44.

Independent and group work:

Less able:

Using comic strips from the resource section on page 45, children can retell the story of "Buddha, the tigress and her five cubs" by completing seven boxes. They can use both drawings and speech bubbles to aid their recounts.

The sequence of events may need jotting down on a white board as a reference.

Able:

Children to work in groups of 4 and by using freeze framing, retell the story of "Buddha, the tigress and her five cubs." Encourage the children to be as creative as possible. This could be by letting them recount the story in a different format, e.g. as a news report. Allow the groups time to plan and practise their freeze framing. Use a camera to record each group's performance and if possible, encourage any other groups watching to assess the performing group's freeze frames.

More able:

Children write a diary entry, pretending to be a character from the story; they could be the Buddha, one of the brothers or even the tigress. Challenge the children to use descriptive language, complex sentence structures and punctuation. Children to use also write a clear introduction and conclusion to their tale.

Teacher to support and possibly scribe for any SEN pupils if needed.

session 5

Buddha, the tigress and her five cubs

Extension:

Ask the children to plan, and if there is time also write, their own traditional story about the tiger and Buddha. Get the children to think about message behind their story.

End of session review:

As a whole class, watch the photographs of the able group's freeze framing and using 2 stars and a wish, ask the children to assess their performance. Then, allow children from all ability groups to share their diaries and comic strips with the rest of the class.

How can we help save the tiger?



session 6

How can we help save the tiger?

Session objectives:

I can design and create my own conservation advert as part of a group.
I can work effectively as part of a group.

Session opener:

Using talk partners, ask the children to discuss the key features of working well as a group. Create a set of rules for working well as a group on a A3 piece of paper. Tell the children that these are the rules they must abide when working as part of a group during the next 3 sessions.

Session introduction:

Tell the children that after learning about the tiger over the last few weeks, they are now going to create their own creative conservation advertisement, aimed at raising awareness about the tiger and its conservation status. Explain that conservation charities often use magazine adverts, billboards, t-shirts, posters etc to raise awareness about the different animals they work hard to preserve.

In talk partners, ask the children to recap the reasons for why tiger populations in Asia are declining. After

a few minutes, feedback the reasons as a class and note these down on the IWB.

Tell the class that they are going to work in groups of two, three or four to plan, develop and perform or present their own conservation advert over the next three sessions. Allow the children as a whole to decide the size of their groups. Also, it is completely fine if a child wishes to work independently for this activity.

Note:

This activity can be carried out in anyway that fits the ability of the children, the resources within the school or the preference of the teacher.

The activity can be structured by giving the whole group a single focus and leaving it up to them how they design it. For example, you may wish the whole class to create a t-shirt. However, it can also be more unstructured by giving the children their own choice to design a conservation advert in any medium.

session 6

How can we help save the tiger?

For example, one group may choose to create a t-shirt, while another group might create an television advert using Windows Moviemaker. While the following session in the teaching pack will plan for the last idea (unstructured), they can easily be adapted to suit a more structured idea.

Possible ideas for creating a conservation advert:

T-shirt, webpage, PowerPoint, video recorded advert, photo story, leaflet, game, song, poem, fact file, story, poster, dramatic performance, radio advert, choral performance, play script, persuasive letter.

Mixed ability group work:

Explain that before any wildlife conservation charity produces any type of advertisement, it always plans and designs it in detail before officially releasing it for the public to see.

In their groups, give the children the rest of the session to draw or write up a presentable plan or design for their resource.

You may choose to model how you wish the class to set out their design if you have a particular preference. Remind the groups that they should also list the materials they will need so they can be organised for the next session.

Teachers should roam the class, listening to ideas and highlighting good practice as well as support those children who may find this level of creativity difficult.

End of session review:

Allow the groups to share their designs with the rest of the class. Encourage the other groups to assess their ideas by commenting on good aspects of the design, whilst also making recommendations. If there is time, you may wish to give the groups time to amend their designs after this part of the session.

You may also want to ask the children to nominate people who they feel abided by the class rules of working as a group.

session 7

How can we help save the tiger?

Session objectives:

I can design and create my own conservation advert as part of a group.

I can work effectively as part of a group.

Session opener:

Use this time to organise the class in their appropriate groups and hand out equipment. You may also want to reinforce the rules for working as part of a group again.

Session introduction:

Tell the class that they have this session to create their conservation advert. Recap with the class as a whole what they have to do to work effectively as a group.

You may wish to use this time to model how to use any equipment or how to create an advert if you have chosen to do the same as a whole class, e.g how to paint accurately onto a t-shirt.

Before the groups begin, remind them of the importance of using their design to help guide their work.

Mixed ability group work:

The children are to work in their groups from the last session to create their advert.

Again, teacher support should be to groups as required.

End of session review:

Ask the class to suggest children from their groups who they think achieved today's objective of working well in their group.

Encourage the children to share their reasons for their choices clearly.

session 8

How can we help save the tiger?

Session objectives:

I can present my advert clearly.

I can explain the reasons behind my choices clearly.

Session opener:

Tiger Quiz Challenge! Get each child to write a question to test another's knowledge on tigers. Once all of the children are ready, the children wander round the classroom to some music, until the teacher presses pause. The children pair up with the child closest to them. The pair then ask each other their questions. If both children answer correctly, they can swap their questions. If not, they have to keep their questions. The teacher should give them 1 minute to do this, then play music to get the children to move around the classroom once again. Press pause and repeat. Ask the children to always find a different partner to their last.

Session introduction:

With the help of the class, move all the tables and chairs to the back of the class to create a large area.

Sit the class down in their groups, leaving space at the front of the

classroom for the a single group to perform or present their advert.

Take the time to establish, as a class, the rules for how the audience should act whilst groups are performing or presenting. These suggestions could be noted down on a IWB as a constant reminder if possible.

After this, ask the class what they think they might want to know from each group when they present their advert (this is not required if the advert is a performance), E.g. How was it made? What materials were used? Etc. Note down these suggestions on the IWB or a large piece of paper for the groups to refer back to.

Mixed ability group work:

Allow each group to come to the front of the class and perform or present their advert. After each group has finished, allow the audience an opportunity to ask any questions they may have. Then, after any questions, ask the class to use 2 stars and a wish, or any alternative assessment method, to assess a group's advert.

session 8

How can we help save the tiger?

(2 stars and a wish is an assessment technique where children say two aspects they liked about a resource, and a single aspect they think could have been improved for next time).

End of session review:

After each group has performed, ask the class which adverts they liked and encourage them to explain their choices clearly.

How did we do?



session 9

How did we do?

Session objectives:

I can critically evaluate the effectiveness of my own conservation advert.

I can make realistic suggestions about how I could improve my advert.

Session opener:

Ask the class what they think it means to critically evaluate a piece of work. Allow the children to share their ideas and ensure they understand what a critical evaluation is.

Session introduction:

Explain that after a conservation charity has designed, produced and presented or performed their advert, they reflect back on their progress. This allows them to remember and celebrate good techniques or ideas they had used as well as understanding why any mistakes were made to ensure they don't happen again.

Take this time to recap on the evaluations at the end of the last session again as a class. Model how to fill in the evaluation sheet from the resource file on pages 46 or 47, showing how to fill in the sheet

Independent work:

Less able:

As a table, give each pupil evaluation sheet A and work through each question as a group. Get a child to read out a question, then discuss possible answers as a table. Give children time to complete it, then move on to the next question.

Middle ability:

Children to complete evaluation sheet A independently and critically evaluate their performance.

More able:

Give children evaluation sheet B. Children to complete the sheet independently, with the added challenge for them to write how they could use some of the skills they have learnt in the future at school or at home.

Extension:

If children have completed the activity above, allow them to start writing up basic instructions for how they created their advert. This can be done using drawings with basic instructions for less able pupils, up to a set of full instructions for G and T pupils.

session 9

How did we do?

End of session review:

Allow the children the time to share their evaluations with the rest of the class. Focus on any common problems each group had and discuss how could these be avoided in the future.

Ask the children to note down everything they now know about tigers on a sheet. The results from this can be analysed in comparison to the same exercise which was carried out in session 1. This will give you an indication of the impact of this So What? teaching pack.

Teaching pack resources



session 1

A white tiger



session 2

Wildlife sheet

	Producers	Consumers
Tiger prey		
Not tiger prey		

session 3

Tropical grasslands



Tropical grasslands include the open grasslands often associated with Africa, as well as savannah-type grasslands in Nepal, Australia, India and the Americas. Tropical grasslands have drought resistant shrubs and grasses, and have trees (such as the acacia tree) dotted throughout them. The seasons are dry and wet. Tropical grasslands have a large supply of food which comes alive in the wet season. This large supply of food attracts large herds of grazing animals, such as the wildebeest, Thompson gazelle and impala. These herds attract large predators such as the lion and leopard.

session 3

Flooded grasslands



Flooded grasslands are the half grassland, half wetland typified by the Zambezian flooded grasslands and those found in Central and East Africa, Cameroon, Sudan, Nigeria, Chad, Mali, Ethiopia, Niger and Uganda. They may be permanently or seasonally flooded, which has an obvious effect on what kinds of plant and animal species found here. This type of wetland area is of particular value to bird life, so bird populations - both local species and migrants - are often high in numbers. Flooded grasslands are important for large populations of mammals which are either part of, or follow the migration of other mammals as the water levels change in different locations. Grazing animals such as African buffalo, wildebeest, elephants, zebras, giraffes and hippos can be found in these habitats, as well as antelopes such as waterbucks, puku, elands and lechwe.

session 3

Dry forest



Dry forests occur in climates that are warm year-round, and may receive several hundred centimetres of rain per year. They have long dry seasons which last several months and do vary with location. These seasonal droughts have great impact on all living things in the forest. Dry forests are home to a wide variety of wildlife including monkeys, deer, large cats, parrots and various rodents, and ground walking birds. The absence of precipitation during a prolonged portion of the year is what produces a true dry forest. A dry forest is an ecosystem type characterised by plants and animals possessing specific adaptations to survive the dry season. Dry forests are typically found in very warm regions in the tropics, where the mean annual temperature is greater than 17C, and where rainfall is in the range of 250 to 2000 mm per year.

session 3

Mountain grasslands



Mountain grasslands such as those in the Ethiopia include the alpine areas above the tree line as well as grasslands below it. The Ethiopian mountain grasslands occupy an area between 1,800- 3,000 metres high. These high altitude grasslands often exist as isolated islands within another habitat type. Consequently, the animals and plants that live here are often cut off from similar species in other areas of the habitat and therefore evolve slightly differently. Abundant herbs and shrubs, which have adapted to life in high mountain conditions, can be found. Animals such as the Ethiopian wolf, mountain nyala, gelada, ibex, spotted hyena, caracal, serval, leopard, duiker, red river hog, big-headed mole rat and several bird species survive here. Lower down the mountains, humans often use the land for their livestock to graze on, as well as for general farm use.

session 3

Semi-desert



A desert, or semi-desert, describes any area that receives less than 250mm of rainfall in a single year. Deserts cover at least 1/5 of the Earth's surface. Some deserts are endless 'seas of sands' where the wind piles sand into large dunes. Other deserts may be flat, stony plains, or have rugged, rocky hills and mountains. Because there is so little water, deserts are bare landscapes with few plants or animals. Deserts appear to be dead landscapes. In fact, they harbour animals and plants that are specially adapted to the harsh, dry conditions. Most of the plants remain dormant until a rare downpour of rain. Then short, wiry grasses and delicate flowers spring up, growing and flowering quickly before the desert dries up again. After a good shower of rain, the desert becomes green for a brief time and pulsates with life. Animals and plants often have to survive extremely hot days and bitterly cold nights when the temperature decreases rapidly. Deserts may appear to have very little life in them, but on closer inspection they can often be rich in life. There are many ground dwelling animals such as a range of rat species, shrews, mongooses and springbok.

session 3

Polar region



Polar Regions can be found at the planet's northern and southern tips. The core of the Arctic is a great ocean - the Arctic Ocean - parts of which are covered all year round by ice that drifts about the North Pole. The Arctic Ocean has many thousands of big and small islands and is almost surrounded by land: the northern parts of Europe, Asia and North America. The Antarctic is an isolated continent surrounding the South Pole. Most of Antarctica's land lies beneath ice and snow almost 2km thick. It has high mountains and glaciers and is the coldest, driest and windiest continent on Earth. These regions are very cold: the coldest temperature ever known on earth (-89°C or -129°F) was recorded in Antarctica. The average winter temperature in the Arctic is about -30°C. The only plants that grow here are specialist forms of cold-loving algae that grow on the surface of snow. Only animals that do not rely on vegetation, such as penguins, seals and polar bears, are able to live here. In addition to this, walruses and arctic foxes also live here.

Session 3

Coastal



Coastal cliffs are the rock land edges that face the sea. These are complex and diverse habitats that lie above the water line, where exposure to salty spray, wind, sun and rain all play their part as does the type of rock. A range of flowers flourish and colourful lichens coat the rocks. Cliff tops make important nesting places for seabirds and each species has its own requirements: from ledges for guillemots and kittiwakes to grassy slopes that puffins can burrow in. Bats, birds, lizards and buzzing insects are also found. Predators may have some cover to help them hunt.

Session 3

Mountains



Mountains are a tough place of life in comparisons to lowland environments, due to their lower temperatures and harsher weather conditions. At the highest point there is less oxygen and carbon dioxide in the air, making it difficult for both animals and plants to live. Solids are thin or non-existent on steep mountain slopes, which inhibits the growth of plants. The uppermost slopes of the highest peaks may be devoid of plant-life. Steep cliffs and rocky surfaces make movement often difficult, and predators require excellent balance to hunt here. Sheep, ibex, cats, hares and other animals can exist in these environments.

session 3

Rainforest



Rainforest are the most vital habitats on the planet and are characterised by high rainfall. They only cover 6% of the Earth across the tropical regions, but they contain more than half of its plant and animal species. Rainforests are home to gigantic trees, colourful birds, millions of brightly hued insects, and a variety of fascinating mammals. There are 3 main regions of tropical rainforest: in Central and South America, in West and Central Africa, and in Southeast Asia. Fast-growing trees form a thick canopy that restricts much sunlight reaching the forest floor, therefore hampering undergrowth. Many rainforest trees have dark green, often leathery, leaves which taper sharply so that water drains quickly from the surface. The canopy area is where the majority of wildlife exists, particularly a range of primates, yet some terrestrial animals do exist such as a various cats which do still take advantage of trees.

session 3

Urban



Urban environments are areas dominated by human activities and human constructions. These include towns, cities, and associated landscapes, such as landfill sites. It can almost be described as a grouping of other habitats where buildings make artificial cliffs, sewers and drains act as waterways, and parks and gardens act as forests and meadows. Animals which have adapted to the urban environment are tolerant of the light and noise generated by human and their activities. Animals also take advantage of the heat and the abundant source of food on offer. Urban areas are known to attract foxes, reptiles, bats, badgers, rabbits, humans, penguins and baboons in South Africa. There are even reports of leopards roaming areas in cities in Kenya and Namibia.

session 3

Broadleaf forests



Broadleaf forests are most diverse in the eastern areas of North America and in China. Unlike many forests, plentiful immature trees and undergrowth means most life is on the forest floor. Temperate broadleaf and mixed forests occur in areas with distinct warm and cool season, which give it a moderate average temperature. These forests occur in relatively warm and rainy climates, sometimes also with a distinct dry season. A dry season occurs in the winter in East Asia and in summer on the wet fringe of the Mediterranean climate zones. Other areas have a fairly even distribution of rainfall; annual rainfall is typically over 600 millimetres (24 inches) and often over 1500 millimetres (60 inches). Temperatures are typically moderate except in parts of Asia where temperate forests can occur despite very harsh conditions with very cold winters. Animals which can be found in broadleaf forests are the leopard, otter, giant panda, red panda, hare and many different species of deer.

session 3

Coniferous forests



Coniferous forests have warm summers and cool winters, unlike their tropical counterparts. The species of trees are not completely conifers, and there are usually a few broadleaf varieties too. Giant trees are often a feature, particularly where there is higher rainfall. Britain, perhaps surprisingly for its cold, rainy reputation, doesn't have the climate to support these giant trees. These forests are rather simple, and have 2 layers which are the understory and over story. Coniferous forests can often cover mountainsides. The trees grow close together for protection from the wind. Most animals are herbivores, however some carnivores do exist. The types of animals which can be found are red foxes, moose, snowshoe, hares, puma, red panda, red deer, sika deer and muntjac deer. Coniferous forests can be found in the United States, Canada, Europe, and Asia

Session 3

Marshes



A marsh is a type of wetland which can often be found at the edges of lakes and streams, where they form a transition between the water and ground ecosystems. Marshes form where water is very close to, or above, the ground surface for part or most of the year. They are often dominated by grasses, rushes or reeds. If woody plants are present they tend to be low-growing shrubs. This form of vegetation is what makes marshes different from other types of wetland such as swamps, which are dominated by trees, and bogs. Animals which can be found here are yellow anacondas, water buffalos, river otters, polecats, pumas and a range of deer species.

Session 3

Tropical coniferous forests



Tropical and subtropical coniferous are located in regions of semi-humid climate at tropical and subtropical areas of the world, and in particular within Asia. The forests contain many migratory birds and butterflies during winter. These forests feature thick and closed canopies which blocks light to the floor and allow little underbrush to grow. Consequently, the ground is covered with fungi and ferns. Shrubs and small trees compose a complex and diverse understory. Despite this, some ground animals do survive here, such as the red fox, black and brown bear, Asian golden cat, puma, leopard cat, jaguar, clouded leopard and snow leopard. Furthermore, golden langur monkeys, macaques and siamangs can be found in the trees.

session 3

Mangroves



Mangrove forests grow on tropical coasts with soft soils and are flooded twice daily by the tide. They are important breeding areas for many species of fish. Mangroves and coral reefs have a close relationship - the reef protects the coast where the mangroves grow from being eroded by the sea, and the forest traps sediment washed from the land that would otherwise smother the reef. The constant tide of which these trees are adapted to represents the major limitation to the number of species able to thrive in their habitat. In order for a plant to survive in this environment, it must tolerate broad levels of salt, temperature, and moisture, as well as a number of other key environmental factors. It is unsurprising, perhaps, that only a select few species make up the mangrove tree community. Tree sloths, clouded leopards, leopards, otters, Francois langur monkeys, western colobus monkeys and slow lorises.

session 3

Taiga



The taiga is the largest land habitat: a northern zone of coniferous forests, stretching right round the planet from western Alaska to eastern Siberia. In the winter the temperature can drop to as low as -50 degrees Celsius and the taiga is blanketed in snow. Many of the trees have to survive being partly buried in snowdrifts. In summer, the climate is much milder and many birds migrate to the taiga regions. The boreal forest, or taiga, supports a large range of animals. Canada's boreal forest includes 85 species of mammals. The cold winters and short summers make the taiga a difficult place for reptiles and amphibians. The taiga is home to a number of large herbivore mammals, such as moose and reindeer. Other deer species such as elk and roe deer also inhabit the taiga. Other animals such as black and grizzly bears, wood bison, foxes, weasels, lynxes and wolves inhabit these areas.

session 5

Buddha, the tigress and her five cubs

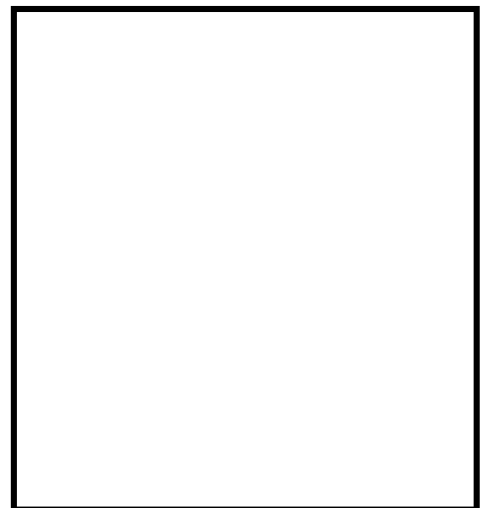
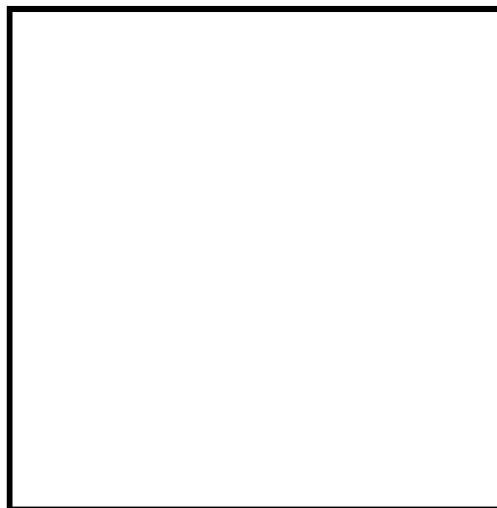
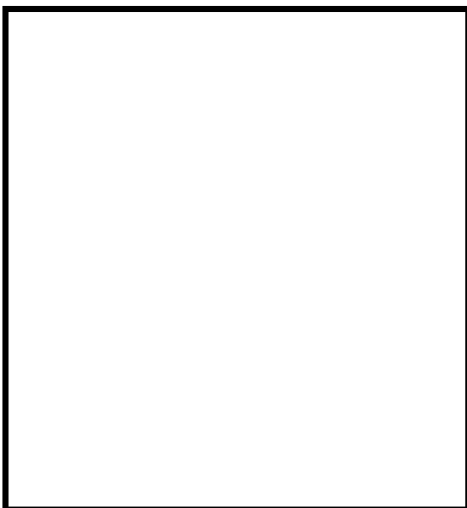
In one of his previous lives, the Buddha was born as the youngest of three princes. When he was only five years of age, the three princes were in a forest playing together. They played hide-and-seek and other games. As they were walking in the forest, they came to a cave where they found a wounded female tiger with her five cubs. The mother tiger was very weak and was unable to provide food for the baby tigers. The Buddha's older brothers went to search for some food, and they asked the young prince to stay near the cave to take care of the mother tiger and her five cubs.

Whilst the Buddha was taking care of the wounded tiger and her five cubs, he began to think that it was not proper to kill other beings and give their flesh to the tiger. He found some large thorns and pressed them into his neck, and as the blood came out, he let the five cubs and their mother suck the blood. In fact, he gave his whole body to the five cubs and their mother as an act of generosity. As he did this, the Buddha prayed, "Right now I am only able to give temporary help to these starving beings, by just removing their hunger. May these tigers that are enjoying my flesh, blood and bones, be re-born to a higher realm, and may I be able to teach them and lead them out of a cyclic existence." As a result of the connection, the five cubs were re-born as humans and attended the first teaching of the Buddha.

(Adapted from: <http://buddhismchatsite.myfanforum.org/viewtopic.php?f=82&t=1031>)

session 5

Buddha, the tigress and her five cubs Comic strip



session 9

Evaluation sheet A

Give a brief description of your advert

What do you think worked well with your advert?

What would you do differently next time?

List the skills you had to use to create your advert

session 9

Evaluation sheet B

Give a brief description of your advert

What do you think worked well with your advert?

What would you do differently next time?

List the skills you had to use to create your advert

How could you use these skills during school or at home?

Thank you

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