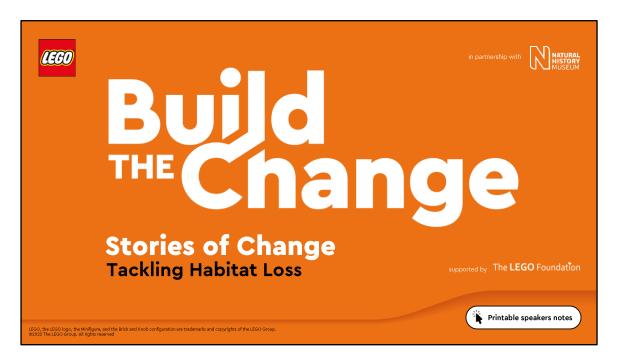
PRINTABLE SPEAKER'S NOTES for HUMAN IMPACT SESSION 2A: STORIES OF CHANGE - TACKLING HABITAT LOSS

Link to PDF classroom presentation:

http://www.LEGO.com/cdn/cs/sustainability/assets/blta89a80a703ddc570/HI_BtC_2A_SoC_Habitat_Loss.pdf

Italics = suggested speaking script. Standard text = notes to educator.

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Welcome back!

In this session we look at ways humans have impacted modern day dinosaurs around the globe.

Can anyone remember which dinosaurs are still alive today?

Birds!

We will also be looking at ways that humans can have a positive impact on nature.



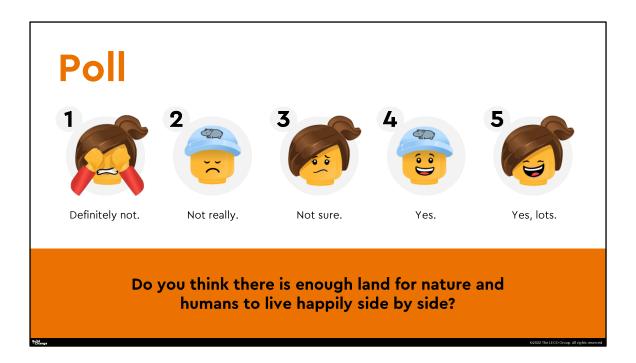
Today's topic is the problem of habitat loss.

The land is made up of countless different habitats around the world. Unfortunately, there is, and has been, a lot of negative human impact on habitats.

In this session we will explore some of these but also ways in which humans are positively impacting habitats.

Please note: We have deliberately kept this slide very high level as following slides introduce the topic in more detail, including definitions of some of the key words.

But before we hear more, let's look at a few poll questions...



ONLINE POLL – Question 1

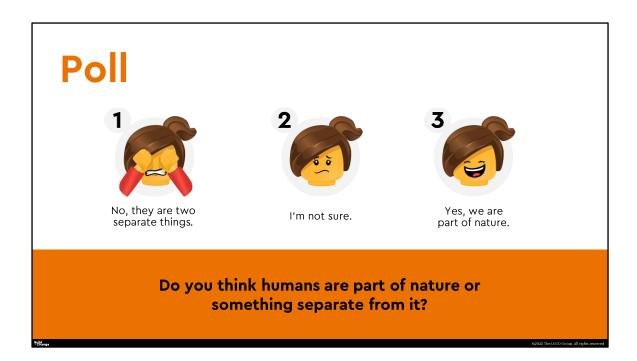
Link to the poll:

http://www.LEGO.com/sustainability/buildthechange/polls/hi-poll-2aa?CMP=EMC-LCE

Run through the question then ask the class to choose one number that represents how they feel; ask them to raise their hands when you call out that number.

Count the hands for each answer.

Once you've been through all the answers, enter the one with the most votes, then click through to reflect on how the group's answer compared to classrooms around the world.



ONLINE POLL – Question 2

You should be able to click through to this next poll question at the end of the previous one but if you lose it, the direct link is here:

http://www.LEGO.com/sustainability/buildthechange/polls/hi-poll-2ab?CMP=EMC-LCE

Awesome Words









Indigenous

Nocturnal

Predator

Migrate

AWESOME WORDS

OK class, here are some of the key words we will need for today's session.

Does anyone know what these words mean?

Indigenous -----

If people or other living things are Indigenous, it means they have always lived in a specific area, and have not travelled in from another part of the world.

Examples of Indigenous peoples are the aborigines of Australia, the Māori of New Zealand or the Cherokee of North America.

Animal and plant species that have always lived in a specific area are also known as indigenous or native. Species that have arrived over time are known as non-native and have often been introduced by humans.

Nocturnal

This word describes any animal that comes out at night and sleeps during most of the day

Can anyone think of a nocturnal bird?

Possible answers/prompts:

- Owl
- Nightjar
- Nightingale
- Potoo
- Kiwi

AWESOME WORDS (continued)

Predator -----

This word describes any animal that mainly gets its food from hunting and killing other animals.

What kinds of birds are predators?

Possible answers/prompts:

- Eagles
- Hawks
- Owls
- Herons
- Shrikes
- Falcons

DID YOU KNOW: shrikes (aka the butcher bird) will kill their prey and store the food in a bush of thorns to eat later!

Migrate -----

To migrate is to move from one place to another. When we talk about animals migrating, it is usually over long distances and across different parts of the planet.

Birds are among the animals that migrate the furthest distances. We will learn more about that later in the course.

Can anyone name any other birds or animals that migrate?

Possible answers/prompts:

- Wildebeest
- Monarch butterflies
- Swallows and swifts
- Arctic tern
- Whales

DID YOU KNOW: Even many moth species migrate! Some fly thousands of kilometers each year!



Our friends at the Natural History Museum will help us learn about nature in this course! They have incredible bird nest specimens in their collections.

Let's have a closer look at some of them.

What do you notice about them?
Why are they different shapes?
What about the materials?
Do you think there are any signs of human impact in these nests?

Notes about these specimens for teachers: The Museum has lots of nests in its collection. From studying these closely, scientists can see that some birds actually use human waste to build their nests.

One of these nests was built inside a plastic flower pot! One of them contains plastic and pieces of fabric.

One of these nests is from a bowerbird. Bowerbirds collect colourful objects to add to their nests to help attract a mate. Some of these bits of human waste might have a positive impact on the birds (keeping them warm) others might have a negative impact on birds (sharp items could injure chicks).



THE "HOOPOE" HABITAT GAME

Time for an activity!

Let's explore and reflect on why land is important for wildlife, especially birds.

Now, all of you are a species of bird called the Hoopoe (pronounced 'hoo-poo') – here's a photo of one – they're pretty cool birds found all over Europe, Asia and Africa.

What noise do you think a Hoopoe makes?! 3, 2, 1 Go!

In a minute, all you hoopoes are going to get into groups of 5 around each of the hoops around the classroom.

This is your habitat.

Question: what do you think you need in that habitat?

Teacher prompts: where do they live? what do they eat? Focus on places to lay eggs and places to find food

Then, when I say so, you will fly around slowly until I tell you to return to your habitat. Then we will repeat this a couple times but each time will be a little different – you'll see.

Everyone ready?

(INSTRUCTIONS FOR EDUCATOR ON NEXT PAGE)

THE "HOOPOE" HABITAT GAME (Continued)

CLASS ACTIVITY TEACHER INSTRUCTIONS:

- 1. Hoops are habitats. Group the children and assigned each group a hoop/habitat.
- 2. Ask them to then 'fly' around the classroom (bird noises optional!). While they do this the teacher removes one hoop/habitat.
- 3. Tell children to head back to their hoops/habitat. They will realize one is missing so can instead move to another.
- 4. Repeat a few times. They will notice each remaining hoop/habitat will get more and more crowded.
- 5. This game is a bit like musical chairs but with hoops!

NOTE: Hoops can be replaced with large sheets of paper, cushions or any other object available.

After the activity, reflect on the following questions...

- When I removed a hoop, what do you think that represented?
 Teacher prompt: losing hoops = losing habitats for birds to live, lay eggs and find food.
- Why do you think habitats are being lost?
- Can you think of any local areas where animals are losing habitats?



Now let's dive into the case study video on the impact habitat loss has on birds around the planet and how people are trying to resolve these challenges.

Play the video, "Stories of Change: Tackling Habitat loss" (http://www.LEGO.com/cdn/cs/sustainability/assets/blta790d6021d708997/HI_BtC_2A_SoC_Habitat_Loss_16x9_EN.mp4)



CASE STUDY: The Turtle Dove (Europe & Africa and Western Asia)

Who knows the song – the 12 Days of Christmas? Then you might know the bird in our next case study.

The Turtle Dove used to be a common sight and sound across much of Europe, Africa and Western Asia. They migrate (or travel) every year, spending spring and summer in Europe and Western Asia and then spending the rest of the year in Africa.

Sadly, the number of these birds surviving in the wild is going down very fast — so quickly in fact that, if nothing is done, they will become extinct in countries like the UK within 10 years. So why are they having a tough time?

Well, unfortunately they are losing their habitat not only in Europe BUT also in Africa. Double whammy.

In Europe, habitats full of rich weed seeds have been cleared to make room for farmland and housing. This means less food and space for the doves. And it is a similar story in Africa, habitats full of the Acacia tree have been cleared to make way for farmland. This means less space for the doves to roost in.



So how are people trying to help?

One really cool solution has been REWILDING projects around the world. What do you think 'REWILDING' might mean?

Rewilding is basically making a space wild again – taking it back to how it used to be before humans impacted it (by cutting it down or building on it).

Rewilding is becoming common around the world with big and small projects popping up everywhere.

Some farmers understand that by using rewilding, they can still grow food and crops, but by working with nature, not against it! It's a great way to share the space with nature.

Rewilding involves three main things:

- Restoring a space to its natural state this can be done by making it more wildlife-friendly or even using buildings that give more space to nature
- Reintroducing indigenous plants and animals
- Protecting the space from being cut down or destroyed in the future

The Knepp Estate in the UK is doing just this – they have worked out how to farm with nature, not against it. This has meant there is more habitat and food for turtle doves who come back to the site every year.

Link: https://knepp.co.uk/



CASE STUDY: The Kirtland's Warbler (US and Canada)

This little bird is super picky when it comes to its habitat. The warblerspends summer in the US and Canada and needs dense forests of Jack Pine trees.

However, the bird specifically needs young trees (ones that are a bit smaller). In the past, this hasn't been a problem as natural wildfires were common in the area. Wildfires remove older, bigger trees and make space for younger, smaller ones. The warbler was able to find lots of young trees to live and nest in.

But, humans have become better at preventing wildfires in these areas, this has meant fewer natural wildfires and therefore less space for young jack pine forests for the Kirtland Warbler.

So, by humans reducing wildfires in this area, these birds have been losing their habitat.



So how are people trying to help?

Of course, it wouldn't be a good idea to allow more wildfires to happen. So instead, some people in the US have had the idea of managing the land and controlling the height of jack pine forest!

They can keep some trees small for the warblers. They are also planting more jack pine seedlings each year. How awesome is that!

40 years ago, there were only 167 of these birds in the wild, but now because of these positive human impacts, there are more than 2300 pairs of them in the Jack Pine forests.



This slide is an opportunity to reflect and take in all of the information the children have just heard.

If you are using the printable Build the Change Course Journal (http://www.LEGO.com/cdn/cs/sustainability/assets/blt46c9f2b09eb3a32f/course_journal_HI.pdf), ask the children to write down what stood out for them in those case studies in the box indicated for this session.

If you aren't using the booklet, reflect vocally as a class. Ask the children to share what stood out for them.



This is a hands-on creative challenge to protect birds -- whether the ones from the case studies or birds local to you -- from habitat loss.

We have a few creative challenges you can choose from today.

- 1. Design a nest box for a bird of your choice
- 2. Create something that will transform a building (e.g., your home or your school) into a bird friendly building
- 3. Or choose an open space near where you live and design a rewilding plan for it

Encourage your class to express their ideas using any creative materials available, e.g.,:

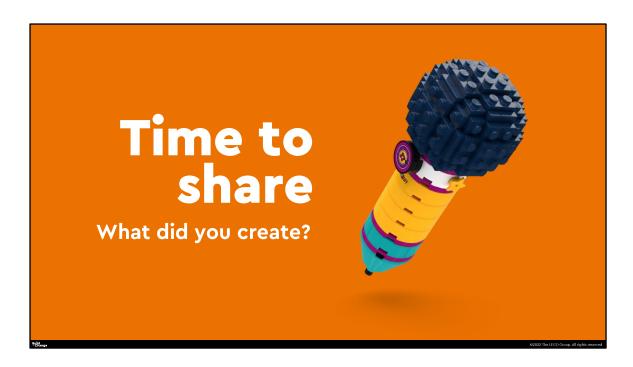
- Crafting materials build your solution from cardboard, paper, pipe cleaners, etc.
- Pen and paper illustrate and explain your idea on paper.
- LEGO® bricks build your solution from any bricks you have available.

If you like, you can use our printable ideas cards to let children write out an explanation of their idea/creation: http://www.LEGO.com/cdn/cs/sustainability/assets/ blt05a1a38185a2557e/BtC_Idea_description_card.pdf



TIME'S UP

Bring this up once the "time to create" is up.



TIME TO SHARE

Show this slide while you give children a chance to share what they designed.

- How does your idea work?
- Which type of bird is it protecting?
- What would you hope might be the impact of this idea for birds and other wildlife?
- One thing you did well, one thing you'd like to improve and one thing you like about someone else's idea.

Once they're done with sharing, get them to gather for a wrap up quiz starting on the next slide...

Teachers: Don't forget to upload photos and descriptions of your kids' ideas to our public galleries on LEGO.com, using the QR code on the last slide of this presentation.



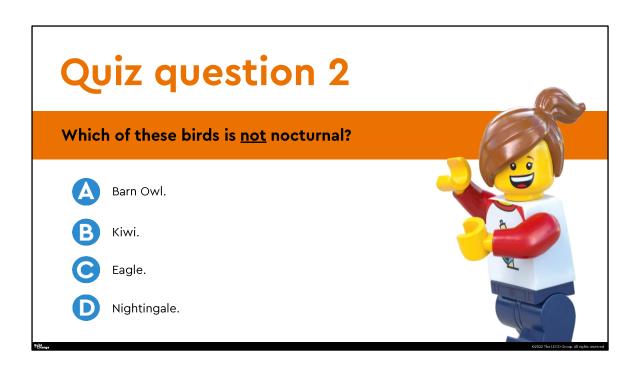
TIME TO QUIZ

It is the end of the session! Yay!! Well done everyone!

We'll be finishing up with a quick quiz on some of the things we learned today.



Correct answer: A – kiwis cannot fly. This means they cannot escape easily from predators like dogs, cats and stoats, which humans introduced to the area.



Correct answer: C – all of the other birds are nocturnal. Eagles are diurnal, this means they are awake in the day and sleep at night.

What does 'migrate' mean? When a living thing moves from one place to another, usually long distances across different parts of the world. B A type of headache that only birds get. A dance move for bird-lovers. When a living thing travels a short distance to collect food or find water.

Correct answer: A – migration means to travel from one area to another. Some birds migrate in winter to find warmer areas or places with more daylight. We will learn more about this later in the course.

Over to You What can you do to help?

- Why not try to rewild part of where you live? It could be a yard, garden, balcony or windowsill.
- 2. Is there an area near you that can be rewilded?

 Why not speak to your local town hall or council.

That brings us to the end of the session.

Before you go, here are a few ideas on how you can get involved and start helping today's dinosaurs yourselves.

External links

Global

• Make a nature journal https://www.nhm.ac.uk/take-part/digital-nature-journal.html

North America

- Identify a bird https://www.audubon.org/bird-guide
- Audubon for kids https://www.audubon.org/get-outside/activities/audubon-for-kids

UK

- Identify a bird https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/identify-a-bird/
- Big school bird watch https://www.rspb.org.uk/fun-and-learning/for-teachers/schools-wild-challenge/activities/big-schools-birdwatch/



Before we wrap up, remember that your ideas matter and you need to share them whenever you get the chance.

Let's put our minds together and come up with the inspiration the planet needs!

Thank you for being awesome changemakers!



Don't forget to send photos and descriptions of your class's creations to our galleries on LEGO.com!

Scan the QR code with a phone camera to get started.



Time to create...

...something to protect birds from habitat loss.

Don't forget to upload your kids' creations to our gallery on LEGO.com!

Note: you will need to be signed with your LEGOID username and password to upload.

Just scan the QR code above with a phone camera to get started or use this URL:

http://www.LEGO.com/sustainability/buildthechange/challenges/hi-challenge-2a/upload?

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