

# PRINTABLE SPEAKER'S NOTES for HUMAN IMPACT SESSION 1: MEET TODAY'S DINOSAURS

Link to PDF classroom presentation:

[http://www.LEGO.com/cdn/cs/sustainability/assets/bltd84f548919a93c12/Hi\\_BtC\\_1\\_Introduction.pdf](http://www.LEGO.com/cdn/cs/sustainability/assets/bltd84f548919a93c12/Hi_BtC_1_Introduction.pdf)

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

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*Welcome to Build the Change!*

*We all know children have the best ideas and an amazing amount of creativity. That's why we think it's important to share topics like the one we'll be looking at today and get your ideas on how to make things better.*

*We know your ideas can change the world. They can influence important decisions. They can inspire people in positions of power to change. They can change our planet and our lives for the better!*

*Today we are kicking off our journey on how nature is being impacted today by humans and how we can help protect living things from extinction.*

# Our Topic



## **Human Impact** Meet today's dinosaurs

*Today we are going to start exploring a really cool topic – one that is really important in helping people and the planet into the future.*

*The course is called **Human Impact: Saving Today's Dinosaurs!***

*We will be thinking about the different living things that humans share the planet with, and how humans can have a positive and negative impact on them.*

*But before we get into that, let's hear from Leo and Linda about **Build the Change** and the role you will play!*



Play the video, “Welcome to build the Change,” at [http://www.LEGO.com/cdn/cs/sustainability/assets/bltdac7ffc4cbe3bc11/welcome\\_to\\_BtC.mp4](http://www.LEGO.com/cdn/cs/sustainability/assets/bltdac7ffc4cbe3bc11/welcome_to_BtC.mp4)

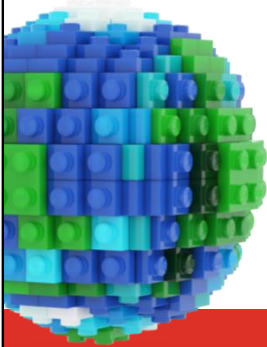


*Museums can be fantastic places to learn about nature and how humans can help it.*

*The Natural History Museum in London and Tring has over 80 million specimens (specimens are objects from nature). The Museum also has over 300 scientists that are working hard to learn more about nature.*

*Our friends from the Museum will help us learn about dinosaurs, birds and other living things throughout this course.*

# Awesome Words



**Environment**



**Impact**



**Habitat**

## AWESOME WORDS

Now it's time to introduce the class to some of the key words from the session.

To start, ask the children if they know any of these words and ask them to describe what they think they mean.

*OK class, which of these words do you recognize? Would anyone like to try telling us what they mean?*

### **Environment** -----

*This describes the world around us – both living and non-living things – and how they all interact. The non-living part of the environment is made up of three main parts: air, water and land.*

*We hear about environmental problems a lot in the media. Have any of you heard of environmental problems?*

### **Possible answers/prompts:**

- Climate change
- Global warming
- Sea level rises
- Pollution
- Deforestation
- Acid rain
- Habitat loss
- Extinction

*If time: Do you think we need to protect the environment? Why / Why not?*

## AWESOME WORDS (CONTINUED)

### Impact -----

*A strong effect – something that has the power to change something else. Impacts can be positive (helpful) or negative (damaging.)*

*What could impact the planet and everything living on it?*

#### **Possible answers/prompts:**

- Meteorites
- Climate change
- Earthquakes
- Hurricanes and tropical storms
- Food shortages
- Human activity

### Habitat -----

*A habitat is simply the place where living things live. The space provides shelter, food and water to the living things.*

*Does anyone know an example of a habitat?*

#### **Possible answers/prompts:**

- Forest
- Grassland
- Arctic tundra
- Icecaps
- Urban
- Heathland
- River
- Parkland
- Ocean
- Dunes
- Desert
- Rainforest
- Marsh/Swamp
- Seashore

*Wow great job class! Ready to use these new words?*

Define these awesome words, then ask:

*Today's topic is human impact. Can you think of any ways humans impact or change the environment?*

Teacher prompt: encourage class to think of positive impacts and negative impacts.

# Poll



**What kind of impact do you think humans have on nature?**

## ONLINE POLL – Question 1

*Before we get going, let's ask ourselves a few questions with a little poll...*

Link to the poll:

<http://www.LEGO.com/sustainability/buildthechange/polls/hi-poll-1a?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.

# Poll

1



I don't do anything yet for nature.

2



I don't do much for nature.

3



Not sure.

4



Pretty good.

5



Very good.

**What impact do you think you have on nature?**

## 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-1b?CMP=EMC-LCE>



# Poll

1



Definitely not.

2



Not really.

3



Not sure.

4



Yes.

5



Yes, for sure.

**Do you think you can help nature in the future?**

## ONLINE POLL – Question 3

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-1c?CMP=EMC-LCE>

# Awesome Words



**Extinction**



**Endangered**



**Adaptation**

## **AWESOME WORDS**

Now it's time to introduce the class to some more of the key words from the session.

Once again, ask the children if they know any of these words and ask them to describe what they think they mean.

*OK class, now, which of these words do you recognize? Would anyone like to try telling us what they mean?*

### **Extinction** -----

*This word describes the process where a species no longer exists in the wild – where numbers of a species living in its natural environment becomes zero, where they have become extinct.*

*This is exactly what happened to the dinosaurs of course.*

*What other animals do you know of that have gone extinct?*

### **Possible answers/prompts:**

- Dodo
- Mammoth
- Pterodactyl
- Ammonites

## AWESOME WORDS (CONTINUED)

### Endangered -----

*This describes those animals and living things that are very close to going extinct. These are species that need help to ensure they, and their habitats, are protected and able to recover.*

*Do you know any animals that are currently endangered?*

#### **Possible answers/prompts:**

- Tigers
- Turtles
- Vultures
- Sharks

*Why are they endangered?*

### Adaptation -----

*An adaptation is a feature of a living thing that helps it to survive. Like an owl that has large eyes may be able to see better in the dark.*

*Can anyone think of any adaptations birds have?*

#### **Teacher prompts**

- Ducks have webbed feet to help them swim
- Woodpeckers have strong beaks and neck muscles to protect them from headbanging
- Eagles have sharp beaks to catch prey



*OK, now we are ready!*

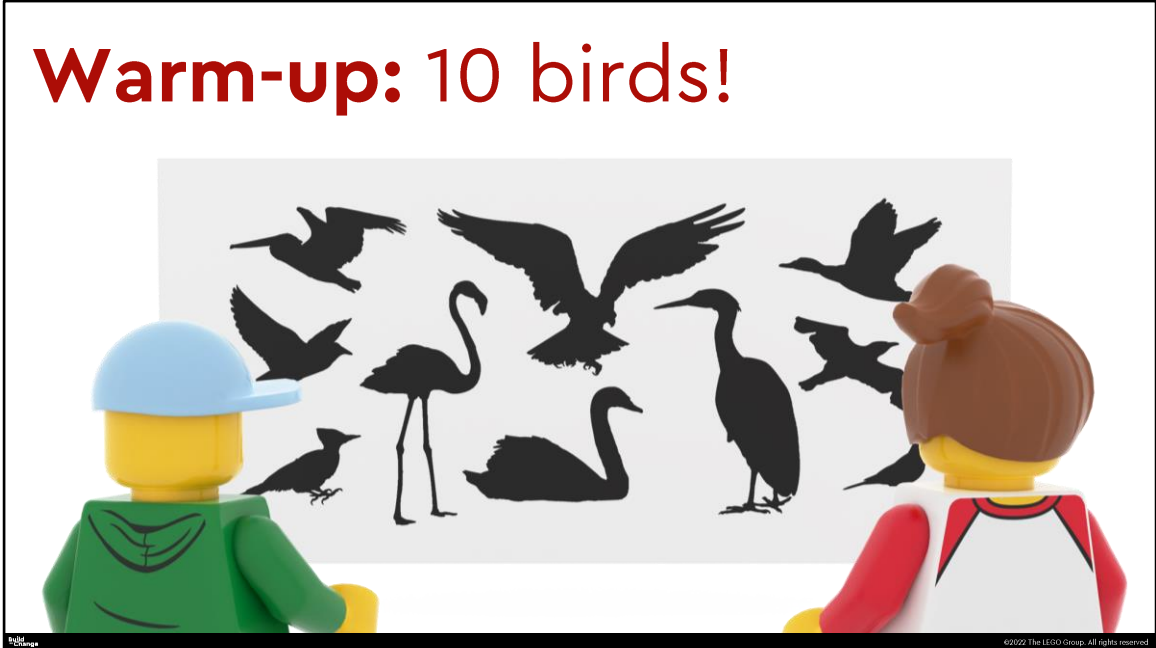
*We've got our words down. Now all we need is some cool facts!*

*Let's kick things off with an introduction to Human Impact.*

Play the video, "Human Impact: Saving today's dinosaurs"

[http://www.LEGO.com/cdn/cs/sustainability/assets/blt0ca90e9e3f0b6a08/Hi\\_BtC\\_1\\_Introduction\\_16x9\\_EN.mp4](http://www.LEGO.com/cdn/cs/sustainability/assets/blt0ca90e9e3f0b6a08/Hi_BtC_1_Introduction_16x9_EN.mp4)

# Warm-up: 10 birds!



## **WARM-UP ACTIVITY**

Name 10 different types of birds... (differentiation: do it as a class or in pairs)

*OK class, let's come up with 10 different birds from around the world and put them up on the board.*

Once 10 birds reached, move to class discussion:

*What different habitats do these 10 birds live in?*

**Extra discussion point if time:**

*Which birds swim and run and fly?*

*Can you think of one local example and one worldwide example for each swim/run/fly?*

# Warm-up: Different & the same



Swan



Albatross



Emu

**PLEASE NOTE:** Only use this slide if enough time. It provides a good link between birds and their environments.

## WARM-UP ACTIVITY

**CLASS DISCUSSION:** *How are these birds the same, how are they different?*

### Possible answers/prompts:

All birds have:

- Feathers
- Beaks
- Wings

*How are they different?*

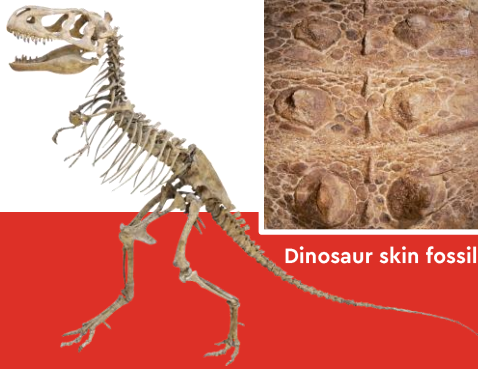
### Possible answers/prompts:

- Size
- Shape
- Wings
- Beaks
- Environment

Why do you think they are different?

Do they have different wings, feet etc. because of their environment?

# Birds are today's dinosaurs!



Dinosaur skin fossil



Chicken foot

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*There is a lot of evidence that suggests that birds are modern-day dinosaurs. We can think of them as the great, great, great (and many more greats!) grandchildren of the dinosaurs. So, what do dinosaurs and birds have in common?*

(Use the images on the slide to facilitate a discussion on the similarities and differences between dinosaurs and birds)

Things to point out:

- Hips, feet and spine very similar in joints, shape and structure – both even have wishbones too.
- All birds have beak, wings and feathers – although some birds' wings are so small, we can't usually see them, like the ones on some flightless birds like kiwis and emus.
- Scientists think that many dinosaurs had some feathers, but it's not always easy to see the feathers in dinosaur fossils (like the one on the left.)
- Both dinosaurs and birds had hollow bones or bones with air sacs, to make their skeleton lighter.
- Believe it or not, scientists think they actually slept in similar positions to birds – with their legs folded and their heads tucked under one arm – it's unlikely many dinosaurs slept on tree branches though!
- Bird and dinosaur claws are very similar.

# Challenge: Build a bird

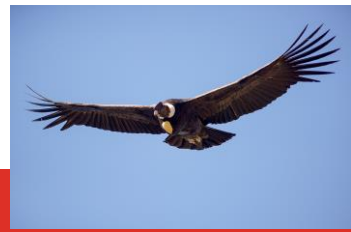
Choose a type of environment for your bird to spend time in...



Land



Water



Air

## TIME TO CREATE

Choose a type of environment and then build a bird with adaptations to suit it.

*Yay, it's time to get creative!*

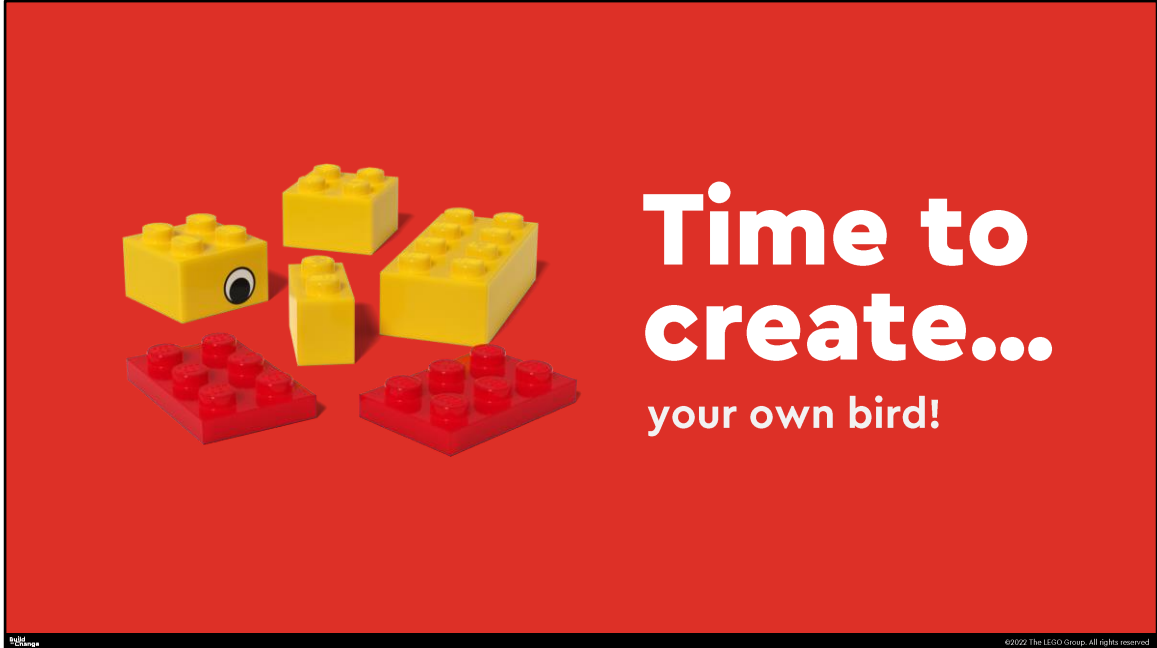
*You've all heard so many cool facts already. Now it's time to put this new knowledge to use.*

*Your task is to choose one of these environments on the slide and build a bird that's well adapted to it.*

*For your bird, think about:*

- *How they move around in their environment.*
- *What they eat and how do they get their food.*
- *What parts of their body are most important for their habitat? Do they need long or short legs? Do they need a long or short beak? Do they need big wings?*





## **TIME TO CREATE**

Put this slide up during the children's create time.

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

- Creative materials – build a bird from cardboard, paper, pipe cleaners etc.
- Pen and paper – trace your hand, draw a bird, etc.
- LEGO® bricks – build a bird 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 bird and its adaptations:

[http://www.LEGO.com/cdn/cs/sustainability/assets/blt05a1a38185a2557e/BtC\\_Idea\\_description\\_card.pdf](http://www.LEGO.com/cdn/cs/sustainability/assets/blt05a1a38185a2557e/BtC_Idea_description_card.pdf)

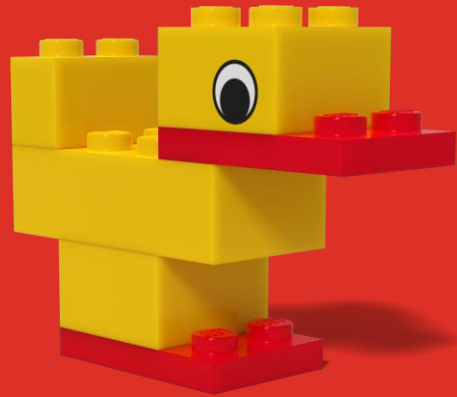


**TIME'S UP**

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

# Time to share

...What's your bird like?



## TIME TO SHARE

Give the children/groups a chance to share what they have created with the rest of the class.

Some questions to get them started:

- Who has the biggest bird? Who has the smallest bird?
- Why did you make a small/big bird?
- What does your bird eat? Herbivore/carnivore: class votes.
- Would your bird swim, walk or fly (or all three): class votes.
- Why does your bird have long/short wings/legs?
- What habitats would be most important to your bird?
- Why does your bird have a long/short beak?
- Give your bird species a name!



## **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.*

# Quiz question 1

Which of these do dinosaurs and birds not have in common?

- A** Tails.
- B** Egg-laying.
- C** Large teeth.
- D** Feathers.



Correct answer: C – birds do not usually have teeth, but dinosaurs did!

## Quiz question 2

Which of these is not a feature of all birds?

- A** Laying eggs.
- B** Having a beak.
- C** Able to fly.
- D** Having feathers.



Correct answer: C – some birds like ostriches, penguins and kiwis do not fly.

## Quiz question 3

Look at this bird's foot.  
Where do you think it spends most of its time?

- A** In water.
- B** On rocks.
- C** In the air.
- D** In the forest.



Correct answer: A – this is a duck's foot. It is webbed which helps it to swim. This is an example of an adaptation.

# Over to You

What can you do to help?

1. Go bird watching.
2. Help community science by reporting the birds you see.
3. Make a nature journal.
4. Tell someone how important birds are!

*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

### 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

- Big school bird watch <https://www.rspb.org.uk/fun-and-learning/for-teachers/schools-wild-challenge/activities/big-schools-birdwatch/>
- Make a nature journal <https://www.nhm.ac.uk/take-part/digital-nature-journal.html>





**From the planet Earth and everyone  
at the LEGO Group and  
the Natural History Museum,  
thank you for building the change!**

**See you next  
time!**

*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!*