



SUSTAINABLE
PALM OIL
CHALLENGE

Teachers' pack

CONGRATULATIONS!

Your school is part of the Chester Zoo Sustainable Palm Oil Challenge

The unsustainable production of palm oil is one of the biggest threats facing the forests and wildlife of Borneo and Sumatra.

Through being part of the Sustainable Palm Oil Challenge you and your students will learn all about palm oil, what it is, how it's affecting wildlife and how we can all act for wildlife.

To help you make the most of your class being involved in the Sustainable Palm Oil Challenge we've created this handy teachers' guide. As well as loads of ideas for how to make the project bigger and better using our cross-curricular suggestions, there are also some brilliant palm oil facts at the back to make sure that you're ready to start talking about this topic with your students.

We'd love to hear what you get up to!
Please share your stories @LearnatCZ

PALM OIL CONGA

Learning about palm oil isn't enough, we want to SING about it too! We've created a brilliant song called the **Palm Oil Conga** with **Ashley Fayth**. If you'd like to sing along you can find the music video here; chesterzoo.org/palmoilconga



PALM OIL CONGA LYRICS SO YOU CAN SING ALONG!

VERSE 1

In the deepest darkest jungles
of Sumatra and Borneo,
High up in the oil palm tree
A magical fruit grows.
It makes a tasty pizza,
Then washes all the plates,
It fuels our cars and chocolate bars,
And ice cream cones, and cakes!



CHORUS

Wey-oh-ay-oh-ay-oh
We're gonna sing a song-a!
Wey-oh-ay-oh-ay-oh
And do the Palm Oil Cong-a!

Wey-oh-ay-oh-ay-oh
So won't you come along-a?
Be sustainable, read the label, and
Do the Palm Oil Conga!



VERSE 2

But there's a palm oil problem
We're trying hard to crack -
Mass deforestation -
And we're going to fight back!
To shed some light on workers' rights
And show the world we care
About endangered elephants,
Orang-utans, and bears!

REPEAT CHORUS



VERSE 3

There's a special something
We really wanna be -
The first sustainable palm oil city
The world has ever seen.
And if we stand together
Then our message will be strong!
We have a voice, we have a choice -
And it's sustainable palm!

REPEAT CHORUS x2

CURRICULUM LINKS

MUSIC/DANCE

Curriculum links

Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression.

- Learn and perform the Palm Oil Conga.
- Use instruments and your voices to mimic the sounds of the rainforests and the orangutans.



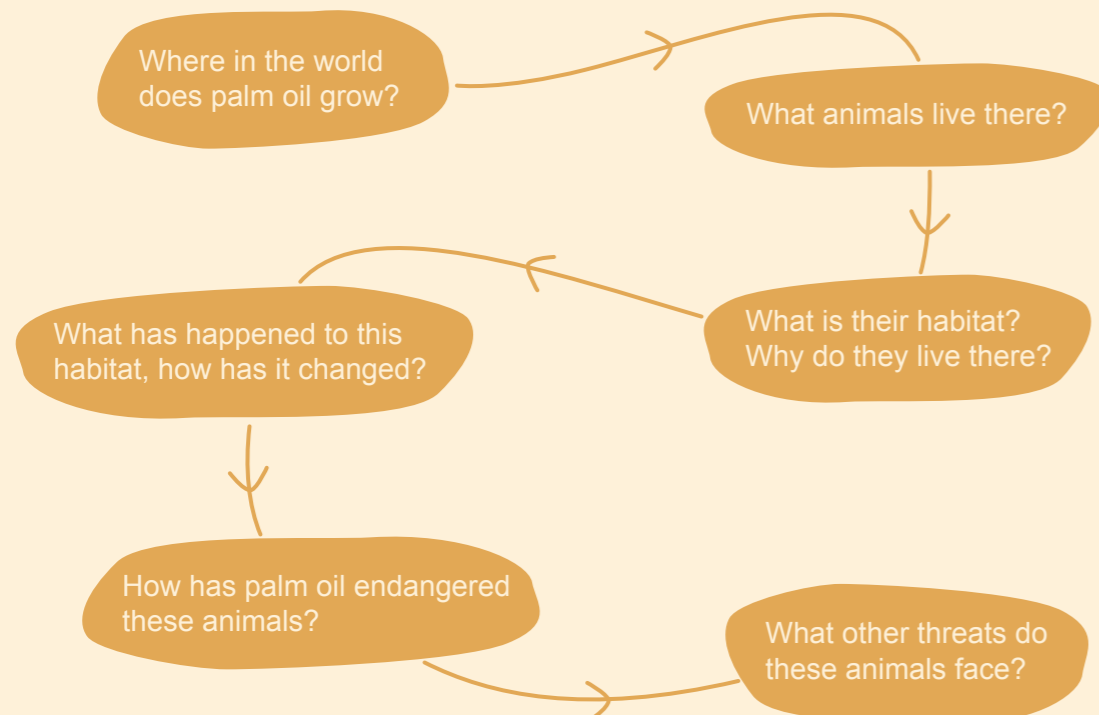
SCIENCE/GEOGRAPHY

Curriculum links

- Identify that most living things live in habitats to which they are suited.
- Recognise that environments can change and that this can sometimes pose dangers to living things.
- Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied.
- Describe and understand key aspects of physical and human geography.



Your pupils can be **CHESTER ZOO** conservationists!
Ask them to find answers to these questions:



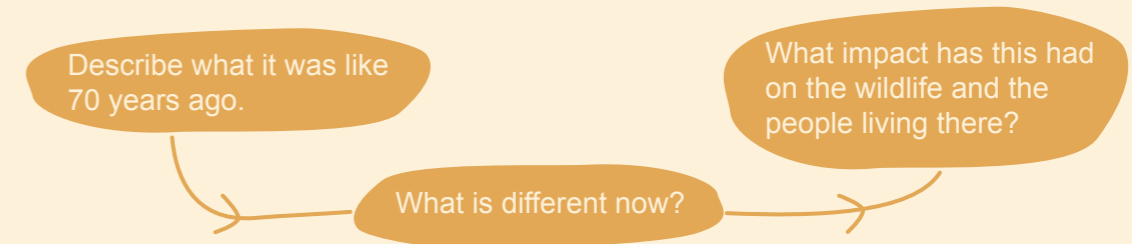
HISTORY

Curriculum links

Understand historical concepts such as continuity and change, cause and consequence, similarity, difference and significance.

Case study

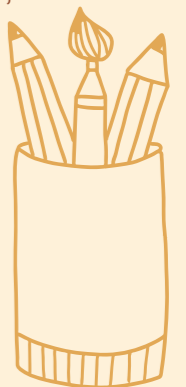
How have the islands of Sumatra and Borneo changed over the last 70 years?



ART AND DESIGN

Curriculum links

- To use a range of materials creatively to design and make products.
- To use drawing, painting and sculpture to develop and share their ideas, experiences and imagination.
- To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space.
- To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay].



- Encourage your students to **create** artistic masterpieces using **sustainable palm oil packaging**.
- Host an **art exhibition** in your colourful classroom to **raise awareness** and **fund** to help save the wildlife of South East Asia.
- Research artistic styles from South East Asia, and then get your students to create their own art in a similar style.



ENGLISH

Curriculum links

- Articulate and justify answers, arguments and opinions.
 - Give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings.
 - Use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas.
 - Participate in discussions, presentations, performances, role play, improvisations and debates.
 - Consider and evaluate different viewpoints, attending to and building on the contributions of others.
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- Hold a palm oil debate and discuss the pros and cons of palm oil.
 - ↳ Have some students on the side of conservationists and others on the side of plantation owners or consumers. Discuss the reasons why it is good that palm oil is produced, and why it can be a problem.
 - Come up with a list of products containing palm oil. Get the students to take turns in pairs to have a conversation for a minute including as many of the products as they can (without listing them). Score each other to see how many you remember!
 - Using as many **sources of information** as they can, get your students to write a poster encouraging people to **change** their buying habits and **promote** sustainable palm oil.
 - Create a piece of writing.
 - ↳ Get your students to write a letter to a supermarket chain, food manufacturer or restaurant persuading them to use sustainable palm oil in their products.
 - Create and write your own recipe book using only sustainable palm oil products.



DESIGN AND TECHNOLOGY - COOKING AND NUTRITION

Curriculum links

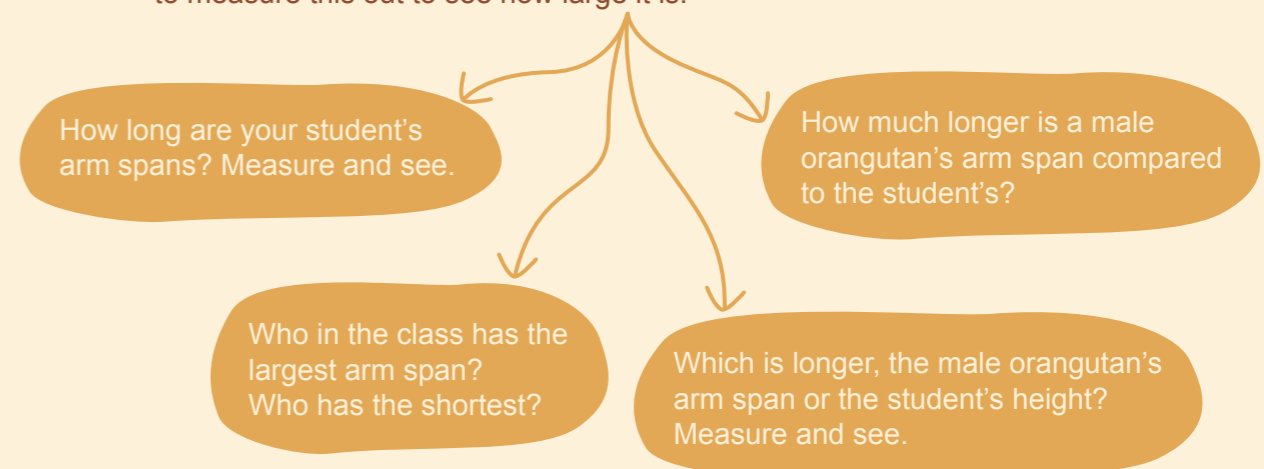
- Understand where food comes from.
- Know where and how a variety of ingredients are grown, reared, caught and processed.
- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
 - Check the ingredients for your favourite meals to see whether they contain palm oil.
 - Design your own recipe using only products containing sustainable palm oil.
 - Prepare and cook a dish using products containing sustainable palm oil.



MATHS

Curriculum links

- Interpret and present data using tallies, bar charts, pictograms and tables.
- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
- Interpret and construct pie charts and line graphs.
 - Ask your students to bring a random selection of packaging from 5 supermarket products.
 - ↳ Of these products, how many of them had sustainable palm oil listed in their ingredients? Convert it to a **fraction or percentage**.
 - **How many** of each species (e.g. Tigers, Orangutans) remain in the wild?
 - **How much** have Orangutan numbers declined in the last 30 years?
 - ↳ Create **charts and graphs** to show your results.
- A male orangutan's arm span is up to 200cm (2m) wide. Get your students to measure this out to see how large it is.



Create **charts and graphs** to show your results.

For further resources and information to get your classroom sessions off the ground check out our **free** online learning resources at chesterzoo.org/learningresources

Share with us what you get up to @learnatCZ

WHAT CAN YOU DO?

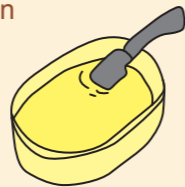
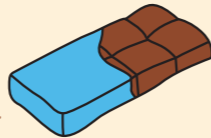
TAKE THE SUSTAINABLE PALM OIL CHALLENGE



YOU CAN MAKE A DIFFERENCE FOR ORANGUTANS WHENEVER YOU GO SHOPPING...

As a class take a look at our **Sustainable Palm Oil Shopping List** to see what chocolate, biscuits or butter brands contain 100% RSPO certified sustainable palm oil, so that when you're next doing your shopping you can swap unsustainable products for sustainable ones!

actforwildlife.org.uk/shoppinglist



YOU CAN BECOME A SUSTAINABLE CHAMPION...

Step 1
Make a pledge

Step 2
Make **ONE** change

Step 3
Tell **EVERYONE** about it

Step 4
You're now a sustainable palm oil **CHAMPION**



Pledge your support for Chester becoming the first **Sustainable Palm Oil City** in the world!
www.chesterzoo.org/sustainable-palm-oil-pledge/



FUNDRAISING

There are **LOADS** of fantastic ways you can raise money for Chester Zoo to help protect the forests and the orangutans who live there.

Here are some ideas to get you started...

DRESS UP

Donate (£1) and dress up as animals from the rainforest for the day!
Can you dress like an orangutan?



SPONSORED SILENCE

As the rainforest is replaced by plantations the animals are *falling silent*. Why not raise awareness and money by holding your own sponsored silence?

Shhhhhhh...

SUSTAINABLE PALM OIL BAKE SALE

Get baking using sustainable palm oil ingredients, and then hold a bake sale to *raise money*

We have some recipes you can download from:
chesterzoo.org/spo-recipes



GOLDEN MILE CHALLENGE

Instead of getting sponsored for running or walking a mile, why not **conga**?
Over a week see if your class can work together to conga for a *mile*!

KEY PALM OIL INFORMATION

What is palm oil?



Palm oil is the world's most commonly used vegetable oil

85% of palm oil is grown in Indonesia and Malaysia

Palm oil can be found in over 50% of products on supermarket shelves

Palm oil comes from the **FRUIT** and **SEED** of the oil palm plant, native to West Africa

They're REALLY TALL, single-stemmed trees which grow between 8 and 20m high



They need *space* to breathe. They prefer loads of light with open canopy conditions.

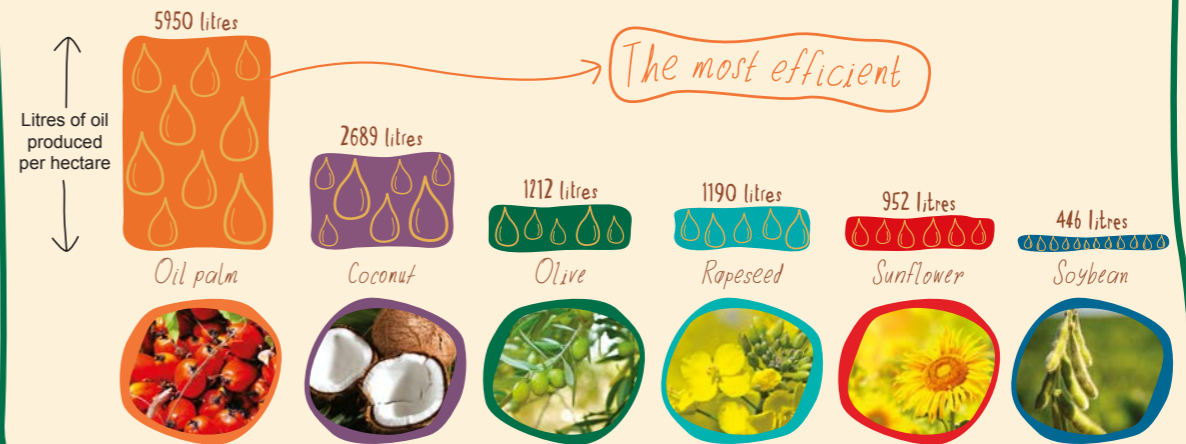
They have a stem diameter of as much as 0.5m

The GOOD...

Oil palms produce **more** vegetable oil per land area than any other oil crop

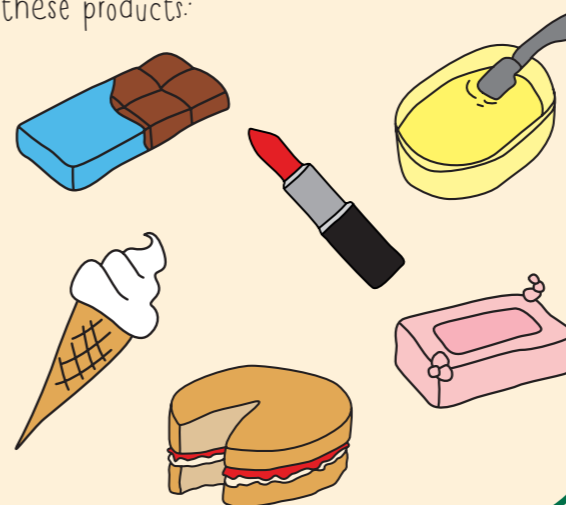
So *less land* is needed to create the same quantities than other oil crops. **Sustainable palm oil** practice means **FEWER rainforests** are at risk from being destroyed to make more plantations.

Have a look at the comparison of how many litres of oil is produced per hectare for the most common vegetable oils...



It's a useful versatile product

Up to 50% of products in a UK supermarket might contain it. You might find palm oil in these products:



It's vital for developing countries

It helps grow their economies and brings people out of poverty. It supports over 3.7 million people in Indonesia alone.



The BAD...

Rainforests are DESTROYED to grow it

They're often *cut down* to make way for unsustainable oil palm plantations. Animals *lose their habitat* and poachers have easier access to their homes.



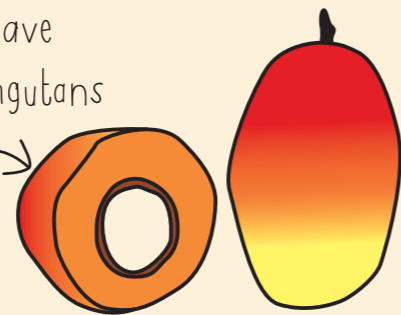
It affects local people

They experience *poor human rights* and land disputes. And removing forests for unsustainable oil palm plantations can cause flooding. This **DAMAGES** crops and people's homes, causing **social conflict**.



It THREATENS many species

Unsustainably grown oil palm plantations have *very little plant diversity*. Animals like orangutans can't survive by only eating oil palm fruit. Forcing them to **move away** to find rapidly shrinking suitable habitat to live in.



Palm oil has the POTENTIAL to be an environmentally friendly oil if grown in the right way: sustainably.

It is now mandatory in the EU for manufacturers to **label palm oil on food products**. This will allow consumers like us to make a fully informed choice about whether or not we want to purchase products containing palm oil. This is the first step in creating a market for sustainable palm oil. We believe a boycott of palm oil is not the answer. A better choice is **sustainable palm oil**.

If demand for oil isn't met by palm oil, other crops **MORE DAMAGING** to the environment will take its place

Because other crops are less efficient, this will convert **EVEN MORE** land into use for agriculture

Sustainably produced palm oil must meet certain criteria

Primary rainforests aren't cut down for new plantations



Plantation owners follow *'best practice'* to make the plantation efficient and reduce the impact on the environment

Workers are cared for and given proper wages and rights



Wild life corridors are kept to connect fragmented species



Chester Zoo is working alongside our *partners* in South East Asia to **PROTECT** the largest orangutan population in the Malaysian state of **Sabah**

We're also working here in the UK to campaign for people to use sustainable palm oil and we've set the ambitious target of turning Chester into the *first sustainable palm oil city* in the world

BY GETTING INVOLVED IN THE SUSTAINABLE PALM OIL CHALLENGE YOU'LL BE HELPING THESE FABULOUS ANIMALS...

Orangutan

They're **CRITICALLY ENDANGERED** in the wild. Over the last 20 years around 80% of orangutan habitat has been lost to oil palm plantations. If numbers of orangutans continue to decline at the current rate they could become **extinct** in the wild within the next 20 years.



There are 3 species of orangutan: Sumatran, Bornean and Tapanuli. The Tapanuli orangutan was only officially identified in 2017, and is the **rarest** of the great apes with 800 or fewer individuals left.

They're the largest tree-dwelling animals on earth, spending around 90% of their time in the treetops.



Sumatran Tiger

They're **CRITICALLY ENDANGERED** with less than 400 individuals left in the wild. Deforestation for oil palm plantations is shrinking their habitat. They're also under threat from poaching and it's estimated that at least 40 animals are year are killed by poachers



Sumatran tigers are the smallest tiger species and only found on the Indonesian island of Sumatra.

They have webbed paws and are brilliant swimmers. They sometimes use this to their advantage when hunting by chasing their prey into the water where they can catch it more easily.



Rhinoceros Hornbill

Deforestation is a major threat to rhinoceros hornbills. Lack of primary rainforest has led to a lack of tree cavities for the birds to nest in.



They seal the nest cavities up using mud, food and droppings leaving only a vertical slit. The female stays in the nest cavity for around 3 months to incubate the eggs and the chicks, while the male brings food and feeds them through the slit.

They're hunted for food and traditional medicine. The feathers, beak and casque are also used in costumes and rituals.



Malayan Tapir

Their population is fragmented through Thailand, Malaysia, Myanmar and Sumatra.

Deforestation is their main threat and they're **ENDANGERED** in the wild.



They can run very quickly over a short distance (top speed 30mph), and can also swim and dive. They can stay underwater for several minutes, and will use this to hide from predators. As well as swimming well, they can also walk underwater along the bottom of lakes like a hippo.



FIND OUT MORE

actforwildlife.org.uk/palmoil

FREE ONLINE RESOURCES:

chesterzoo.org/learningresources

 @LearnatCZ

SAFARI RANGER CONTACT DETAILS:

+44 01244 389 738

safariranger@chesterzoo.org

**ACT FOR
WILDLIFE**

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