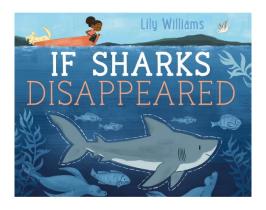
The Big Topic: Conservation



If Sharks Disappeared Lily Williams

This beautifully illustrated narrative non-fiction picture book imagines the consequences of a world without sharks and highlights the need to protect them.

Lesson ideas and Activities

Content aimed at Year 1 and Year 2, with links made to relevant National Curriculum content for those year groups.

Conservation – if we want our children to be the pioneers of a better world, the protectors of our world, we must instil in them curiosity, care and compassion. If we show them the beauty of our planet and all its creatures, they will find the reasons and the motivation to care for themselves.

Contents:

- -British Science Week
- -Maths
- -The Arts
- -Science
- -Literacy Outcomes

Resources produced by Reading Rocks





British Science Week

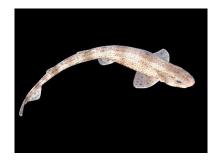
<u>British Science Week</u> takes place from 8th to 17th March. The theme for this year's British Science Week is 'journeys'. In this section, we will look at ways you can explore journeys through this book.

A Journey Through Time:

- Start a discussion about young animals. Ask children if they know what a baby shark looks like. Link with children's prior knowledge of other animals: birds from eggs, butterfly from caterpillar etc..
- Share some images of shark eggcases, or better still collect some yourself to share with them. What do children think grow up from them?







- Share with children that some sharks are born as 'baby sharks' and some are 'hatched' from shark eggs.
- Focus on those that lay egg cases. Two of these sharks are found off British coastlines: Smallspotted Catshark and the Nursehound.
- You can find out lots about them on the Shark's Trust website. https://www.sharktrust.org/en/great_eggcase_hunt

Lesson Ideas:

- Go on an egg hunt. If you are close to the coast, take your class on a hunt for egg cases. On the Shark's Trust website, you can download an ID chart, so you can discover which egg cases you have found. https://www.sharktrust.org/shared/great-eggcase-hunt/eggcase-id-key.pdf
- Adapt the well-known story 'We're Going on a Bear Hunt'. Allow children to innovate the structure, creating their own 'We're Going on a Shark Egg Hunt' story.
- Create a zig-zag book for children to show the stages of an oviparous (egg laying) shark: eggcase; young shark; adult shark.

Maths

Using mathematical skills based on a book can really help children understand the purpose of maths in the real world. You will find that it can increase pupil engagement and motivation to learn. In this section, we will look at ways to apply mathematical content from the Year 1 and Year 2 National Curriculum Programmes of Study.

Year 1 - Number:

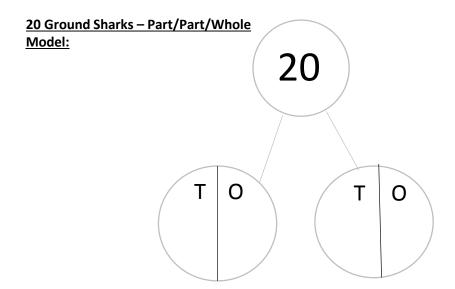
- Check out the end pages together. Look at all those different sharks!
- How many are there in each group?

Lesson ideas:

<u>1 more and 1 less</u>: use the <u>Shark Counting Sheet</u> to allow children to practise adding one more shark, or taking a shark away. Children can draw on an extra shark and cross out, if this helps them. Or represent the sharks with cubes or counters from the classroom.

<u>Number bonds to 20</u>: use the <u>20 Ground Sharks Sheet</u> to allow children to work logically to find all the ways to make 20. You can vary the activity by using a different number of sharks, eg finding all the ways to make 14. Children could put the sharks into a bar model or part/part/whole model, swapping one across each time. It works best if you print the 20 sharks on an A5 page and the model on an A3 page.

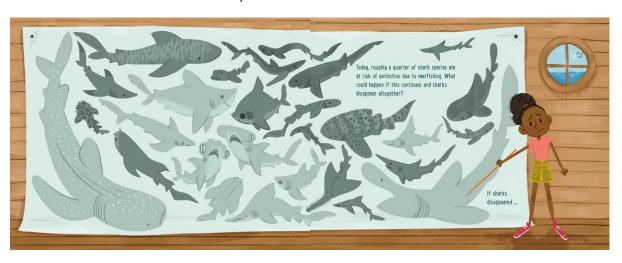
<u>You can support pupils by adapting the part sections into TENS and ONES</u>. Pile the sharks into groups of ten in the TENS column, so children can see the place value.





Year 2 - Fractions:

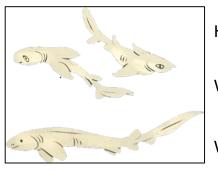
• Read about the number of shark species at risk of extinction.



Lesson ideas:

- Use the **Shark Fractions Sheet** to allow children to practise finding 1/4s of amounts.
- You may want the children to use the <u>20 Ground Sharks</u> to create different amounts to share practically.
- You could use the 20 Ground Sharks Sheet to also count in 2s.

Shark Counting:



How many Frilled and Grilled Sharks are there?

What if there was 1 less?

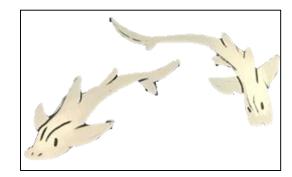
What if there was 1 more?

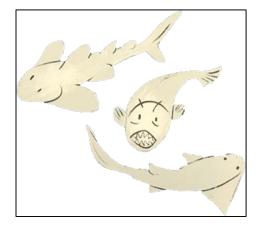
How many Horn Sharks are there?

What if there was 1 less?



What if there was 1 more?





How many Angel and Monk Sharks are there?



What if there was 1 less?



What if there was 1 more?



How many Spiny and Lantern Sharks are there?

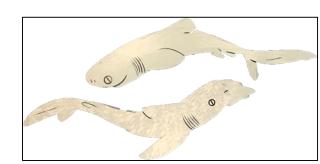


What if there was 1 less?



What if there was 1 more?

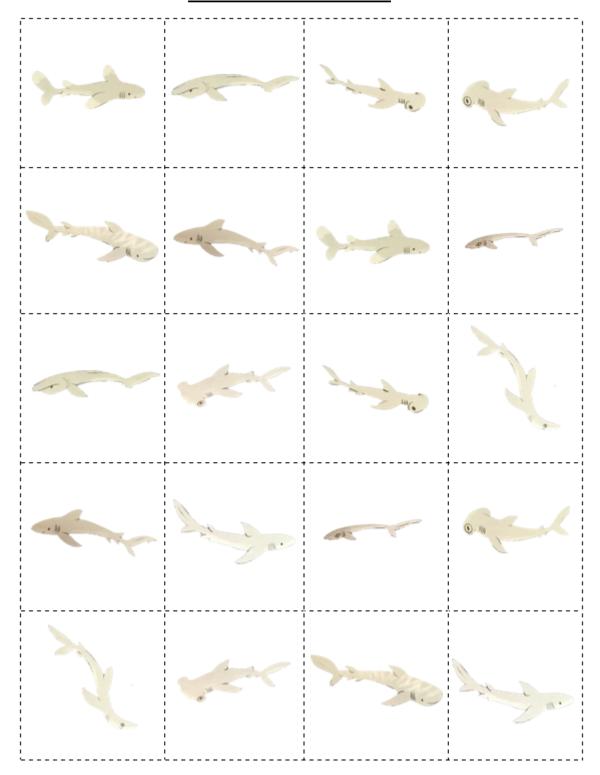








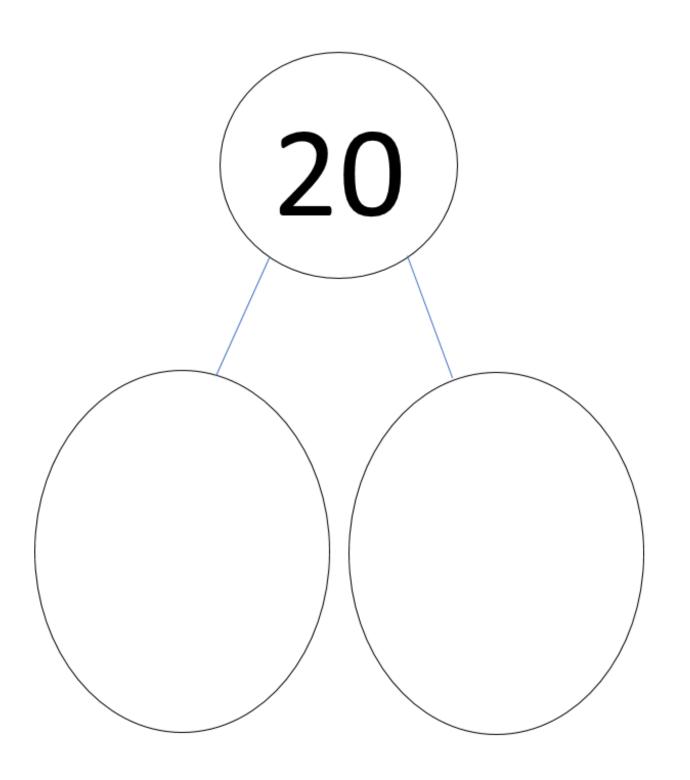
20 Ground Sharks:



20 Ground Sharks – Bar Model:

| J | |
|---|----|
| | |
| | N |
| | 20 |
| | |

20 Ground Sharks – Part/Part/Whole Model:



Shark Fractions:

If ¼ of these sharks became extinct, how many would be gone? How many would be left? If ¼ of these sharks became extinct, how many would be gone? How many would be left?



Shark Fractions:

| If ¼ of these sharks became extinct, how many would be gone? |
|--|
| How many would be left? |
| |
| |
| If ¼ of these sharks became extinct, how many would be gone? |
| How many would be left? |
| or or |
| |
| or or |



The Arts

For those children who are not too keen on reading yet or find it tricky, using the arts (in which they may be more skilled or engaged in) can develop a route into reading for pleasure. In this section, we will look at ways the book can be used as a base for art, music and dance activities.

Collaborative Art:

- Take inspiration from the pull-out page for a group piece of art.
- In a group, each child could select a creature in the eco-system (or micro-habitat).
- Each creature could be created with paint or collage. A creative idea would be to use images of some of the dangers to sharks as the collage material e.g. fishing boat, soup tins, plastic pollution. This would be a powerful statement piece.
- Place all the creature together on a sea painted background (mount board, a classroom display board, or roll of wallpaper).
- To create the shoal of fish, each child in the class could create an individual fish. This would lend itself to a nice PSHE link, that all are different but together make up the community.

Dance:

- Use creative dance to represent the shark food chain.
- Start with one children representing plankton, then
 2 children as krill and so on up to the shark.
- As the food chain goes on, the children who began as plankton and krill are absorbed into the shape of the next creature.
- The food chain will end with the whole group representing the shark as the apex predator.





Science

This book is a dripping with real life science. In this section, we will look at using the book as a hook into scientific knowledge acquisition and working scientifically.



Year 1:

- Take a look at the representation of the food chain. Which creatures are carnivores, herbivores and omnivores?
- How many different types of sharks can you learn?
- Compare pairs or trios of sharks. Think scientifically and note what is the same and what is different.
- Compare sharks to other fish. What's the same? What's different?
- Can children design their own shark, including the features they have spotted all sharks have in common?

<u>Year 2:</u>

- Consider how sharks are suited to their habitat. Why do children think they are often grey on top
 and white underneath? Which other creatures have this in common. Experiment with different
 coloured pieces of paper floating on water. Which is easier to see, when you look down? Try with a
 transparent bowl and lift up (preferably with the light above, to create a similar effect to the sun).
 Which colour is easier to see when you look up? So why is the dark on top, and light underneath
 colouration a good camouflage?
- Explore the food chain by acting it out. What happens if we alter the numbers? Give children the role of seals and bowl of raisins/or cereal/ or small fish sweets to represent the fish. Add in more children, to show what happens when sharks die out. What do children notice about the supply of fish now?
- Explore other food chains for marine creatures, such as turtles.



Literacy Outcomes

Whilst working through these cross-curricular book-based activities, your children will acquire a great deal of knowledge, and hopefully their own voice on the subject. The best writing comes when the purpose and knowledge are real. In this section, we'll look at some SPaG in context and some literacy-based outcomes for sharing this new knowledge.

Reading:

- As you read the book, collect any key words. Note definitions so the children will understand them.
 These could be placed on a working wall or on large paper sheets in your classroom. Keep referring to them.
- Focus on 'What would happen if...?' questions. Encourage children to scan the text for the conjunction IF and to read around for the answer. Use an IF / THEN table to collect the ideas. You could use post its and ask children to put them in the correct box.

| <u>lf</u> | <u>, then</u> |
|-----------|---------------|
| | |
| | |
| | |

- Check out the further reading suggested at the back of the book.
- Visit the local library to collect books on sharks and marine creatures. You could set this as a homework, encouraging children to become an expert on one shark

SPaG:

- Focus on the conjunction IF.
- Use the <u>empty shark</u> to collect all the things that would happen if sharks disappeared. Use this to support the IF sentence writing.
- Give children sentence starters such as 'If sharks disappeared,' Encourage the children to complete the sentences with ideas from the empty shark sheet.

Composition:

- <u>A Class Glossary.</u> Use the key words to inspire a class glossary. Share out the vocabulary and encourage
 children to write definitions for other readers. Look at the glossary in the book for ideas and inspiration.
 Collate together in a book, display or poster.
- A book about the importance of sharks. Encourage children to create a book about the need to look after our shark species. Gather ideas with a discussion about 'why do we need sharks?' Organise ideas into two sections: sharks are important because...; if sharks disappeared..... These should be the ideas for two information paragraphs/sections.
- <u>All about ...</u> book. If children show great interest in sharks, allow them each to become an expert in a specific species. They can create a book with a page each for: appearance, size, diet, young. Children can share their expertise with other children in the class, or maybe other classes within the school.



