

**Reception Science Project**

**Under the Sea**

In our science project this week we want you to learn about life under the water, as well as conduct some water themed experiments! This project will involve doing some of your own research and carrying out investigations at home. Each day you will be given a different theme and ideas for investigations. You **do not** have to complete all of the activities. These are ideas of what you could do to find out more, explain what you know or to just have fun exploring science!

You can present your work however you want - the more creative the better! You can take photographs, videos, produce artwork, write poetry, draw graphs, make a book (to name just a few). We would love to see your hard work so please send us an email on the class accounts [RB@ashdeneschool.net](mailto:RB@ashdeneschool.net) or [RHS@ashdeneschool.net](mailto:RHS@ashdeneschool.net) or post on the school twitter account.

**Key Learning Themes**

This project will focus on:

* **Animals that live on the coast and those that live in the sea**
* **How these animals adapt to their environment in order to survive**
* **The importance of recycling to help protect our seas and look after the animals that live there**
* **Investigating the difference between salt water (from the sea) and fresh water (in lakes and rivers)**
* **Investigating how some animals (like fish) are able to breath underwater**

**Websites to visit**

* <https://www.bbc.co.uk/bitesize/topics/zx882hv>
* <https://www.theschoolrun.com/what-is-a-habitat>
* <https://switchzoo.com/>
* <https://www.greenpeace.org.uk/plastic-end-ocean/>
* <https://www.radiotimes.com/news/tv/2018-05-25/blue-planet-2-plastic-waste-final-episode/>
* <https://www.pinterest.co.uk/pin/493496071672145269/>
* <https://www.pinterest.co.uk/bigheartedfams/kids-can-upcycle/>
* <https://oceana.org/marine-life>
* <https://www.animalfunfacts.net/animal-records/195-animals-that-are-best-at-holding-breath-under-water.html>
* <https://kidsactivitiesblog.com/572/bubble-art/>



**Monday – What do you know about animals that live on the coast and those that live in the sea?**

1. Today we want you to look at different animals that live on the coast (near the water) and those that live in the sea/ocean. The place where an animal lives is called a **habitat**.
2. Watch these videos to find out more about habitats, animals that live on the coast and those that live in the sea/ocean.

Coastal- <https://www.bbc.co.uk/bitesize/topics/zx882hv/articles/zy38wmn>

<https://www.youtube.com/watch?v=lWCQoCurPOY>

<https://www.youtube.com/watch?v=iRoSEsJ4Wkw>

Sea/Ocean- <https://www.bbc.co.uk/bitesize/topics/zx882hv/articles/zsfkd2p>

<https://www.youtube.com/watch?v=VBJyLfOyNsM>

<https://www.youtube.com/watch?v=Fn4bQI6yiTk>

1. Investigate and try to explain what you already know about these animals and where they live.

Think about why you already know these facts- *have you seen them there? Have you watched videos? Why might they live there- food? Shelter? Can this animal live in either habitats or only one? Why?*

You could show what you know by:

* Sorting the pictures provided on Mondays resource document to show where they live- on the coast or in the water
* Draw a coastal and under the sea picture, label the animals that live there and if you can, write sentences about each
* Using an app called ‘pic collage’ use the ‘web search’ icon to search for a coast and sea background. Then continue to use the web search to select pictures of different animals that you think live there. You can add labels to your pictures using the text button.

4) Activity ideas

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| Where do they live and why? | | |
| With sealife figures, or draw and cut out your own sealife puppets, create a coastal and under the sea small world for your animals | Make a video of you explaining your work- what do you know about these animals and where they live? | Write your own song about animals that live on the coast or in the sea |
| Just for fun! | | |
| Using a variety of materials, can you make a collage picture of the coast or under the sea?  <http://mykidcraft.com/seaside-texture-collage/> | Paint a beach picture following these instructions (it recommends acrylic paint but can use any)  <https://www.happyfamilyart.com/art-lessons/acrylic-painting/how-to-paint-a-tropical-beach/> | Can you make an under the sea animal using a paper plate?  <https://www.redtedart.com/ocean-paper-plate-crafts/> |



**Tuesday – Animals and how they have adapted to live in their habitat?**

1. Recap- What is a habitat? Today, you are going to investigate how animals have adapted to their habitat so that they can survive. This means, they might do or have things that protect them from dangers or help them to eat so they stay alive.
2. Look at the photos of the animals in Tuesday’s document. Think about where they live. Explain that they all live near water, but where in the world they live is very different! Some animals live near water where it is very warm and some live where it is very cold. Can you sort the animals based on those who live somewhere warm and those who live somewhere cold.
3. Watch the video below about how some animals have adapted to their habitats <https://www.bbc.co.uk/bitesize/clips/zyx76sg>
4. Now look at the animals you have sorted, how have they adapted to their habitat? You can write labels next to each animal to explain; for example- Polar bear- thick fur to keep warm

**Activity ideas**

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| How have animals adapted to their habitat? | | | |
| Looking at the two different types of places-  warm and cold  Can you investigate and find out about more animals who live in these places and how they have adapted? You could make a poster! | Which habitat do humans live in?  How is it that we can live where it is warm or cold? Explain that we are lucky because we have things that can help us live in both. Look at the two different types of places- warm and cold and think about what we would need to take if we were going to go to both. Can you wear your swimming costume in the polar regions? Why not?  Draw a suitcase of things you would take if you visited both places. Use document template attached if you can. | | What is camouflage? Sometimes animals hide in their habitat from creatures that might want to eat them! Play the games below to help find the animals that have camouflaged!  <http://nightjar.exeter.ac.uk/story/nightjar_game>  <https://www.sensoryecology.com/play-our-new-online-camouflage-game/>  <http://www.frogs.sensoryecology.com/> |
| Just for fun! | | | |
| Could you make a habitat for an animal that might live in your garden? What might they need? How can you make sure they have food and shelter in this habitat? | | Can you use craft items/recycling to make an imaginary animal and a habitat for it! You need to decide what your animal will need in their habitat and how they have adapted to it.  (Your imaginary animal might live in a cold habitat so they may need fur!) | Make you own animal/ habitat or feed the animals by playing online games on switchzoo.  Please access below  <https://switchzoo.com/> |



**Wednesday – How to protect our coast and seas by recycling**

Today we’d like you to take a look at **recycling** and how to protect our planet, especially the coast and our oceans.

1) First things first…what *is* recycling?! Do you do it in your house? Take a look at the PowerPoint attached and see if you can tell an adult or a sibling 3 facts about recycling that you may have just learnt or any that you already know.

2) How could you help recycle more in your town and your school?

3) What material is most dangerous to our planet, its oceans and why?

**You could show what you know by:**

-Drawing a poster that shows what recycling is, how everyone can help, what kind of materials can be recycled.

-Making a short video presentation by giving a tour of your recycling area at home and showing some recyclable materials

- Make your own PowerPoint or pic collage of what recycling is and how everyone can help

-Complete the recycling sorting activity attached

**4)Activity ideas**

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| Learning about recycling | | |
| <https://www.greenpeace.org.uk/plastic-end-ocean/>  Watch the clip and make a poster to show the dangers of plastic pollution | <https://www.radiotimes.com/news/tv/2018-05-25/blue-planet-2-plastic-waste-final-episode/>  Watch the clip and make a leaflet on what we can do to help with plastic pollution | Can you write a song or a poem to help people learn about the dangers of plastic pollution and what we can do to help |
| Just for fun! | | |
| Make something out of the recyclable materials from your house or you could even put the plastic waste to use by making something that you can keep forever, this is called ‘upcycling’ take a look at the links for some ideas <https://www.pinterest.co.uk/pin/493496071672145269/>  <https://www.pinterest.co.uk/bigheartedfams/kids-can-upcycle/> | Make a recycled plastic bottle car!  See the attached document. | Homemade cereal box marble run! |



**Thursday – Investigating the difference between salt water and fresh water**

Today we would like you to look at salt water and fresh water and their differences through a scientific experiment.

1) Think about the water we drink; do you think it is fresh water or salt water? *How do you know?*

2) Where in our world would you find natural salt water?

3) Where (other than our homes) would you find fresh water?

4) Can you think of some animals that live in salt water and some that live in fresh water? *How could you find out?*

5) With an adult’s supervision dip your finger in some salt water and taste it; now do the same with fresh water. *What is the difference? Was one nicer than the other? What other differences do you notice with the salt water and the fresh water (*think about its colour, smell)

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| Other things you can investigate | | |
| Egg floating experiment – Does salt water make objects float? See attached document experiment 1. | Which ingredients dissolve in water? Does it change if you add salt? (see attached document experiment 2) | What happens when you add food colouring to warm/cold water? Does it change if you add salt?  (see attached document experiment 2&3) |
| Just for fun! | | |
| \*ADULTS put some dinosaurs/favourite toys in a bowl of water in the freezer overnight. Give your child some salt, flour, paint and ask them which item will help them melt/break the ice the best/quickest. | Sink or float experiments – add more objects and see which objects float or sink in fresh water. | Fresh water and salt water creatures sorting cards – see attached. |



**Friday – How are some animals able to breathe underwater?**

Today we would like you to find out more about how animals are able to **breathe** underwater

1. Have a chat with a grown-up: *How do you think animals are able to breathe underwater? What about fish? Or dolphins? Or turtles? Do they all breathe underwater the same way?*
2. Take a look through the PowerPoint attached. *Can you answer the above questions now? Are you surprised by what you found out?*
3. Investigate and try to explain what you now know about these animals and how they breathe underwater

You could show what you know by:

* Sorting the under the sea animal pictures provided onto a picture of the ocean or a blue sheet/piece of paper to show if they have to return to the surface of the water for air or stay under water

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| Breathe underwater or not? | | | |
| Can you create fact cards about how different sea animals breathe underwater?  <https://oceana.org/marine-life>  You may want to use the link above to find out more ^^  (see fact card example attached) | | Can you sort the under the sea animal pictures into two groups?  Breathes underwater  Holds their breath  (see animal pictures attached) | |
| Just for fun! | | | |
| How fish breathe science experiment  (see science experiment document attached) | With the people at home, can you conduct a little experiment to see who can hold their breath for the longest?  <https://www.animalfunfacts.net/animal-records/195-animals-that-are-best-at-holding-breath-under-water.html>  You might want to look at this website to find out how long some animals hold their breath for | | Blowing bubbles art  <https://kidsactivitiesblog.com/572/bubble-art/> |

* Draw pictures of under the sea animals, label the animals with their names and if they have gills or lungs. You could write a sentence about each animal to explain how they breathe underwater.
* Using an app called ‘pic collage’ use the ‘web search’ icon to search a sea background. Then continue to use the web search to select pictures of different animals that have gills. And repeat for creating a pic collage of animals that have lungs. You can add labels to your pictures using the text button.

**Activity ideas**