Sonar Curriculum

Y2 Ocean Adventures Learning Sequence

Synopsis: Children will consolidate and develop their understanding of word classes (nouns, adjectives, verbs, adverbs) and apply this to the sequencing and retelling of a story. They will also write a non-chronological report about a sea creature.

In **Science**, children explore different animals and their habitats.
In **Geography**, children use maps and atlases to locate countries, oceans and hot/cold places.
In **Art**, children create an underwater collage using a range of materials including paint.
In **D&T**, children use understanding of mechanisms to create moving fish.
In **Computing**, children create a simple underwater game using algorithms.

Curriculum areas: English, Science, Geography, Art, D&T and Computing
Length of theme: 6 weeks

English

Retell a story in the first person.

English Objectives

Comprehension

- Discuss sequence of events in books
- Ask and answer questions
- Participate in discussions about texts, explaining their understanding of what they have read so far
- Predict what might happen on the basis of what has been read so far

Text Structure & Features

- Become increasingly familiar with and retell a wider range of stories

Grammar & Punctuation

English Learning Sequence

- Introduce an ocean themed story to the children – discuss the title and front cover. What do they think it might be about?
- Read the story to the children, stopping at key points and asking them to predict what might happen next
- Ask and answer questions about the story - what is their favourite part? Which character do they like the most? What would they like to ask their favourite character?
- Talk about the story discussing characters, setting and plot and asking children to explain elements of the story to demonstrate their understanding of it
- Role play the story to embed characters and plot: what happens at start/middle/end? Identify the main events in the story

• Use expanded noun phrases • Use subordination (as, when) • Use co-ordination (and, so, but) **Plan, Draft, Edit & Evaluate** • Write down key words/ideas/vocabulary • Evaluate own writing with teacher/other pupils • Re-read for sense and check that verbs that indicate time are used correctly, including verbs in the continuous form • Proof-read for errors in spelling, grammar and punctuation In addition to the above, teachers should apply general spelling rules and guidance, as listed in English Appendix 1 and ensure concepts and skills outlined in **English Appendix 2** are also addressed.	• Recap noun phrases and ask the children to listen for/find some in the story that have listened to. Create further noun phrases for setting and creatures using ambitious adjectives • Act out different verbs for characters in the story eg scuttled for crab, darted for fish, and clarify meaning of new verbs • Recap co-ordinating conjunctions and introduce children to wider range of subordinating conjunctions to develop their ideas eg As the fish swam, the octopus hid in his deep, dark cave. • Rehearse joining main clauses to create compound sentences and main/subordinate clauses to create complex sentences • Plan each section of story orally first noting key ideas • Write first draft of story, applying the skills taught • Peer assess and edit/improve writing to produce final version

English

Write a non-chronological report about a sea creature.

English Objectives	English Learning Sequence
Comprehension • Retrieve and record information from non-fiction books that are presented in different ways **Text Structure & Features** • Understand the structure of non-fiction books • Write for different purposes (historical comparison) **Grammar & Punctuation** • Demarcate most sentences in their writing with capital letters and full stops, and use question marks correctly when required • Use subordination (as, when, because) • Use co-ordination (and, so, but)	• Show children a range of non-fictions books (ideally about underwater creatures). What do they notice? • Examine front covers, contents, index and glossary and discuss the function of each • Discuss different ways in which the information is presented – use of photographs, diagrams, headings and sub-headings etc. - are the books all set out the same or are there differences? • Play *Book Splat*. Read children a question eg Where do polar bears live? And children 'splat' the book they think would give this information • Within book, choose a specific animal to find out about - what do children notice about the structure and features of text eg photos to support, headings, subheadings

Plan, Draft, Edit & Evaluate

- Plan/say aloud what they are going to write
- Write down key words/ideas/vocabulary
- Evaluate own writing with teacher/other pupils
- Re-read for sense and check that verbs that indicate time are used correctly, including verbs in the continuous form
- Proof-read for errors in spelling, grammar and punctuation

In addition to the above, teachers should apply general spelling rules and guidance, as listed in English Appendix 1 and ensure concepts and skills outlined in English Appendix 2 are also addressed.

- Chop up some information about animals and ask children to reorganise it under chosen headings
- Choose an underwater creature, eg octopus, to research
- Using websites, photos and books, children find answers to key questions about appearance, habitat, food etc.
- Jot key ideas in note form and rehearse making these into complete sentences ensuring that each sentence is demarcated correctly
- Notice that some conjunctions add information (and), some explain (so, because) and some contrast (but)
- Write report focusing on organisation and layout of text

Science

Explore different animals and their habitats.

Science Objectives

Scientific Knowledge

- Explore and compare the differences between things that are living, dead and have never been alive
- Identify that most living things live in habitats to which they are suited
- Describe how different habitats provide for the basic needs of different kinds of animals and plants
- Identify and name a variety of plants and animals in their habitats, including micro-habitats
- Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain
- Identify and name different sources of food

Science Learning Sequence

- As a class, use giant hoops to sort objects into the following categories: living/dead/never been alive
- Share different examples of different habitats – Who lives in a house like this / through the keyhole
- Investigate features about this habitat in order to answer scientific questions and suggest animals that would live there
- Hunt around classroom for different animals and match to habitat, using scientific understanding to support choices eg camel to desert, tree frog to rain forest
- Use a mind map to explain adaptations of different animals (eg polar bear image with key words: thick fur to keep it warm; sharp claws to grip the ice)
- Share different images of plants and research adaptations as a group (eg cacti have small spines for leaves so don't lose much water; thick, fleshy stem to store water)

	• Record and present findings to class

Geography

Use maps and atlases to locate countries, oceans and hot/cold places.

Geography Objectives	Geography Learning Sequence
• Name and locate the world's 7 continents and 5 oceans • Name, locate and identify the four countries of the UK, their capital cities and the surrounding seas • Use world maps, atlases and globes • Use simple compass directions and locational language to describe the location of features and routes on a map • Develop geographical vocabulary • Locate and name hot and cold areas in the world using atlases and globes in relation to Equator and the North/South Poles • Identify similarities/differences in physical/human geography between an area of the UK and non-European area	• Large group - recapping continents and oceans • Set of different animals – those that live in warm water/cool waters and plot these on a map using atlases to support • Look at British seaside resorts and compare these – focus on physical features (eg sand, rocks, shingle) and human feature (eg shops, tourism etc.) • Compare this to a non-European area • Record and present findings

Art

Create an underwater collage using a range of materials including paint.

Art Objectives	Art Learning Sequence
• In collage, mix materials to create texture eg coiling, overlapping and montage • In painting, use a variety of thick and thin brushes to produce lines and shapes, textures and patterns • In painting, mix colours to make secondary colours • In painting, add white to make tints and black to make shades • In print, use repeat or overlapping shapes (using objects to create print) • Use correct artistic vocabulary • Use and apply art and design techniques in using colour, patterns,	• Use key illustrations from a text and discuss how to replicate certain elements • Experiment with different techniques (eg crimping, crumpling, scrunching and ripping) to create seaweed, rocks, fish etc. • Mix primary colours to create secondary colours • Experiment with adding white and black to different colours, noting that adding white makes colours lighter and black makes colours darker • Add white and black to blue to create a sea colourwash

texture, line, shape, form and space with a range of materials • Describe differences and similarities and make links to own work	• Create final product, using techniques best identified during experimentation • Discuss final product, using artistic language with groups (eg What did you like about it? Which bit was most tricky? What different techniques did you use?)

D&T

Use understanding of mechanisms to create moving fish.

D&T Objectives	D&T Learning Sequence
• Design products for others and themselves that are purposeful, functional and appealing • Generate, develop, model and communicate ideas through talking, drawing, templates and ICT • Explore and use mechanisms • Select from and use a wide range of materials and components according to their characteristics • Select from and use a wide range of tools and equipment to perform practical tasks • Evaluate own ideas and designs against given design criteria • Explore and evaluate a range of existing products	• Show a diorama of underwater scenes • Discuss how to make fish move in diorama (so they are not static) • Explore using a range of different components (eg levers, spools, string) to make fish move • Design the diorama, against the design criteria give • Create the diorama and evaluate this against design criteria

Computing

Create a simple underwater game using algorithms.

Computing Objectives	Computing Learning Sequence
• Understand what algorithms are • Understand how algorithms are implemented as programs • Understand that programs execute by following precise and unambiguous instructions • Use logical reasoning to predict the behaviour of simple programs	• Match the definition of key terminology to word (eg code – order of instruction) • Review the programmable equipment found around school (eg printer, dishwasher, microwave) • Design simple program, following sequence of commands to achieve movement of online screen sea creature (ensuring

• Create and debug simple programmes	children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code) • Share their simple games with wider group and have children explain how they created this game