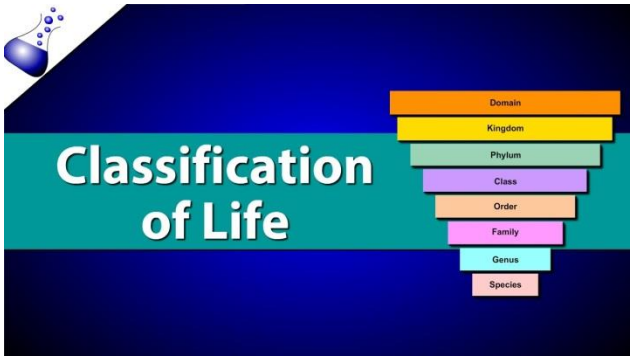
Sacred Heart Primary School
Literacy Plan

Science – Classification



Attention Grabber: Use sweets/chocolates and get children to try and sort these out into different groups and reasoning why.

Rationale: This 'Living Things and Their Habitats' unit will teach your class about the classification of living things, including micro-organisms. The children will build on their work in Year 4 by sorting animals into groups based on their similarities and differences. They will extend their learning to find out about the standard system of classification first developed by Carl Linnaeus, choosing an animal and researching its classification. The children will have the opportunity to design their own 'curious creature' and classify it based on its characteristics. They will learn about micro-organisms, and conduct an investigation into the growth of mould on bread. Furthermore, the children will use play dough to create a new single celled micro-organism and explain how it is classified and why. Finally, the children will put their learning into practice by creating a field guide to the living things in their local area, showing how and why each one is classified.

Learning Objectives:

- I can give reasons for classifying animals based on their similarities and differences.
- I can describe how living things are classified into groups.
- I can identify the characteristics of different types of animals.
- I can classify a creature based on its characteristics.
- I can describe and investigate helpful and harmful micro-organisms.
- I can identify the characteristics of different types of micro-organisms.
- I can classify organisms found in my local habitat.
- I can explain the classification of organisms found in my local habitat.

Overview:

Lesson 1: Classifying conundrums: To give reasons for classifying plants and animals based on specific characteristics in the context of sorting and grouping animals for a zoo.
Lesson 2: Linnaean system: To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals by finding out about the Linnaean System of classification.
Lesson 3: Curious Creatures: To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals by identifying the characteristics of mammals, birds, insects, reptiles, amphibians, fish, arachnids, annelids, crustaceans, echinoderms and molluscs.
Lesson 4: Micro-organisms: To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals by exploring helpful and harmful micro-organisms.
Lesson 5: Further Micro-organisms: To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals I can identify the characteristics of different types of micro-organisms.
Lesson 6: Field Guide: To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals by grouping organisms found in the local habitat.

SMSVC Links

N/A

Cross-Curricular Links

N/A

Resources

~Bread and plastic bags
Access to different locations within the school
Play dough
Petri dish
Access to the habitat around school
Online pictures/videos etc

Opportunities for enrichment:

Videos online, could do possible trip to London Science Museum etc
Present field guides to audience either other classes or other adults

Impact/Assessment

Most Children will: Give reasons for the classification of animals, using examples as a guide. Classify living things using the Linnaean system. Match groups of animals to their characteristics. Classify creatures based on their characteristics. Design a creature that has a specific set of characteristics, using prompts. Describe the useful and harmful effects of different microorganisms. Identify the variables in an investigation into harmful microorganisms. Draw conclusions based on their results. Describe the characteristics of different microorganisms. Describe the characteristics of groups or organisms, using images as prompts.

Less Able Children will: Sort and group animals based on their features, using examples as a guide. Describe Carl Linnaeus and his development of his classification system. Place animals into given groups based on certain characteristics. Design a creature with a specific set of characteristics, using

prompts and a word grid. Name types of microorganism. Set up an investigation into harmful microorganisms. Design a microorganism using given characteristics. Complete descriptions on the characteristics of groups of organisms, using images as prompts. **More Able Children will:** Explain how living things are classified at each level of the Linnaean system. Design a creatures that has a specific set of characteristics. Explain their predictions and conclusions in an investigation into harmful microorganisms. Describe and compare the structure of the cells of different organisms. Describe the characteristics of groups of organisms.

Progression in Science Skills						
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Planning and Communication and Sources	draw simple pictures talk about what they see and do use simple charts to communicate findings identify key features ask questions	describe their observations using some scientific vocabulary use a range of simple texts to find information suggest how to find things out identify key features ask questions	use pictures, writing, diagrams and tables as directed by their teacher use simple texts, directed by the teacher, to find information record their observations in written, pictorial and diagrammatic forms select the appropriate format to record their observations	record observations, comparisons and measurements using tables and bar charts begin to plot points to form a simple graph use graphs to point out and interpret patterns in their data select information from a range of sources provided for them	record observations systematically use appropriate scientific language and conventions to communicate quantitative and qualitative data select a range of appropriate sources of information including books, internet and CD Rom	choose scales for graphs which show data and features effectively identify measurements and observations which do not fit into the main pattern begin to explain anomalous data use appropriate ways to communicate quantitative data using scientific language
Enquiring and Testing and Obtaining and Presenting Evidence	test ideas suggested to them say what they think will happen use first hand experiences to answer questions begin to compare some living things	use simple equipment provided to aid observation compare objects, living things or events make observations relevant to their task begin to recognise when a test or comparison is unfair use first hand experiences to answer questions	put forward own ideas about haw to find the answers to questions recognise the need to collect data to answer questions carry out a fair test with support recognise and explain why it is a fair test with help, pupils begin to realise that scientific ideas are based on evidence	with help, pupils begin to realise that scientific ideas are based on evidence show in the way they perform their tasks how to vary one factor while keeping others the same decide on an appropriate approach in their own investigations to answer questions describe which factors they are varying and which will remain the same and say why	use previous knowledge and experience combined with experimental evidence to provide scientific explanations recognise the key factors to be considered in carrying out a fair test	describe evidence for a scientific idea use scientific knowledge to identify an approach for an investigation explain how the interpretation leads to new ideas

Observing and Recording	make observations using appropriate senses record observations communicate observations orally, in drawing, labelling, simple writing and using ICT	respond to questions asked by the teacher ask questions collect and record data (supported by the teacher) suggest how they could collect data to answer questions begin to select equipment from a limited	make relevant observations measure using given equipment select equipment from a limited range	carry out measurement accurately make a series of observations, comparisons and measurements select and use suitable equipment make a series of observations and measurements adequate for the task	make a series of observations, comparisons and measurements with increasing precision select apparatus for a range of tasks plan to use apparatus effectively begin to make repeat observations and measurements	measure quantities with precision using fine – scale divisions select and use information effectively make enough measurements or observations for the required task