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Diocese of Chester



# THROUGH GOD, WE CARE

# **Science Enrichment – Marine Biology Course**

#### Dear Parent/Carer

I am writing it inform you that your child has expressed an interest in an exciting new enrichment course being offered by Sir Thomas Boteler Church of England High School.

The course is purely for enrichment and aims to bring the world beneath our oceans to our students. On completion each student will receive a certificate of attendance which will be a wonderful and powerful addition to any CV for college/university entrance. Only students with 95% attendance will be eligible to receive the certificate.

The course is being delivered by Mr Caine with over 15 years' experience in this field of study and author of 3 books on this topic. The course will start on Tuesday 20<sup>th</sup> June and run for 15 weeks, every Tuesday from 3.10 to 4.00pm (resuming after the summer holidays).

The course structure is as follows: -

Coral reefs

Reefs and formation

The three reef types, barrier, fringing and atolls, their distribution and formation. Reef architecture how the physical and biological factors shape the reefs we see today.

#### The corals and coral biology

Global distribution of coral species The biology of soft corals The biology of hard corals

#### The basis of life in the oceans

The oceans Phytoplankton Zooplankton

#### The soft bodied animals

Jellyfish, Hydroids Anemones

#### Reef ecology

How new reefs are colonised – coral succession. The battlefield that is the reef Other animals that shape the reef

# The fish

Jawless fishes Cartilaginous fishes (sharks) Bony fishes

#### The Rocky shore

Zonation – physical and biological pressures The algae's The animals



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#### **Marine toxins and venoms**

Marine toxins – shellfish toxins, Deadly seaweed of Hana, Marine venoms – fish and sea snakes Cone shells

# **Marine mammals**

Cetaceans (whales, dolphins, and porpoises) Pinnipeds (seals, sea lions, and walruses) Sirenians (manatees and dugongs)

### **Animals with spiny skins**

**Urchins** Starfish Brittle stars Sea cucumbers

# Hydrothermal vents and the deep sea

The discovery The biology Deep sea environment Deep sea biology

## **Animals with exoskeletons**

Crabs Lobsters Shrimps **Barnacles** 

#### **Shellfish**

Snails **Bi-valves** Sea slugs

Squid, octopus, nautilus and cuttlefish

#### The Polar Seas

The environment Animal adaptations Fish and invertebrates Mammals

# Working in the field of Marine Biology

Date: \_\_\_\_\_

Different areas of study How to get into university Tips on how to get a job Case study of working in Indonesia

To allow us to gain an understanding of numbers please can the attached strip be returned to Mr Caine by Monday 19th June.

Mr Caine

Teacher of Science	
Extracurricular Course Marine Biology	
I would like my child marine biology.	to attend the afterschool course on
I understand that each session	will finish around 4.00pm and we will arrange safe travel home.

(Parent/Carer)

I understand the award of completion certificate is for good attendance 13 out of 15 sessions.