The 'Fragments of hope' scheme of work			
A1	**A2**	**A3**	**A4**
What is a coral reef?	**Belize – the country.**	**The Belize Coral Reef System. (1)**	**The Belize Coral Reef System. (2)**
Learning outcomes *In this lesson learners will learn:* • *How coral reefs are formed* • *The anatomy of a coral polyp* • *The difference between plants and animals*	***Learning outcomes*** *In this lesson learners will learn about:* • *Belize: where it is in the world; its natural and man-made features; its identity*	***Learning outcomes*** *In this lesson learners will learn about:* • *the Belize coastline* • *the Belize Coral Reef System*	***Learning outcomes*** *In this lesson learners will learn about:* • *the Belize Coral Reef System*
Learning activities • Make an edible coral polyp	**Learning activities** • Find Belize on a map of the world • Create a fact sheet about Belize	**Learning activities** • Explore the Belize coastline on a digital map	**Learning activities** • Create 'The Explorer's Guide to the Belize Coral Reefs'
Resources • *'Explorer' workbook* • *Materials to make an edible coral polyp (see workbook)*	***Resources*** • *Learner access to the internet* • *'Explorer' workbook*	***Resources*** • *TEM Belize Coral Reefs map* • *Learner access to the internet* • *'Explorer' workbook*	***Resources*** • *Learner access to the internet* • *'Explorer' workbook*
Key vocabulary **Coral polyp**: a tiny marine animal that can live individually, or in large colonies that make up a coral reef. **Colony:** a group of animals, insects, or plants of the same type that live together. **Coral**: a colony of polyps. **Coral reef**: a group of corals, and all the animals that live on, in or near the corals. **Organism:** a plant or animal. **Zooxanthellae:** tiny cells that live within most types of coral polyps.	**Key vocabulary** **Mangrove:** a group of trees and shrubs that live in the coastal intertidal zone **Ecosystem:** a biological community of organisms and their physical environment. **Creole:** a blend of two languages, usually a European language and a local language. **Islet:** a small island.	**Key vocabulary** **Peninsula:** a peninsula is a piece of land, usually bordered by water on three of its sides.	**Key vocabulary** **Environment:** the natural world.

‘Fragments of hope’ scheme of work			
A5	**A6**	**A7**	**A8**
Animals and plants living in the Belize Coral Reef System. (1)	**Animals and plants living in the Belize Coral Reef System. (2)**	**Animals and plants living in the Belize Coral Reef System. (3)**	**Animals and plants living in the Belize Coral Reef System. (4)**
Learning outcomes *In this lesson learners will learn:* • *animals and plants living in the Belize Coral Reef System*	***Learning outcomes*** *In this lesson learners will learn:* • *identification and grouping of animals and plants living in the Belize Coral Reef System*	***Learning outcomes*** *In this lesson learners will learn:* • *Improvising and composing music to portray the movements of animals living in the Belize Coral Reef System*	***Learning outcomes*** *In this lesson learners will learn:* • *Selecting and using a range of materials and textiles to make either: a Belize coral reef in a box; or a Belize coral reef mural*
Learning activities • Explore which animals and plants live in Belize coral reefs by watching films on a digital map	**Learning activities** • Create a ‘how to’ guide for identifying animals and plants living in Belize coral reefs	**Learning activities** • Compose and perform piece of music portraying movements of animals living in Belize coral reefs	**Learning activities** • Create a Belize coral reef display using a range of materials and textiles
Resources • *TEM Belize Coral Reefs map* • *Learner access to the internet* • *‘Explorer’ workbook* • *http://fragmentsofhope.org/teachers-corner/: More Corals - More Fish colouring book*	***Resources*** • *http://fragmentsofhope.org/teachers-corner/: More Corals - More Fish colouring book; Identification Guide to Common Sharks and Rays of the Caribbean* • *‘Explorer’ workbook*	***Resources*** • *The Carnival of the Animals (Camille Saint-Saëns) audio* • *Musical instruments* • *‘Explorer’ workbook* • *Audio recording equipment*	***Resources*** • *Materials and textiles* • *‘Explorer’ workbook*
Key vocabulary **Critter**: an animal; creature. **Acropora:** a type of coral. **Crustaceans:** mainly water dwelling animals with hard segmented exterior body, known as an exoskeleton. **Algae:** a simple, non-flowering, usually aquatic plant of a large group, eg seaweed.	**Key vocabulary** **Habitat:** the natural home of an animal or plant. **Classification keys:** a set of questions about characteristics of living things which enables you to sort them.	**Key vocabulary**	**Key vocabulary**

‘Fragments of hope’ scheme of work			
A9	**A10**	**B1**	**B2**
What do all living things need to thrive?	**What does a coral reef need to thrive?**	**What threatens the health of the Belize Coral Reef System? (1)**	**What threatens the health of the Belize Coral Reef System? (2)**
Learning outcomes *In this lesson learners will learn about:* • *What plants and animals need to thrive*	***Learning outcomes*** *In this lesson learners will learn about:* • *What a coral reef needs to thrive*	***Learning outcomes*** *In this lesson learners will learn:* • *How rising sea levels threaten the health of the Belize coral reefs*	***Learning outcomes*** *In this lesson learners will learnt:* • *How changes to the ocean threaten the health of coral reefs*
Learning activities • Explore what plants and animals, including ourselves, need to survive and thrive	**Learning activities** • Produce a film to show a thriving coral reef	**Learning activities** • Show how sunlight is important to the health of plants	**Learning activities** • Explore how changes to the ocean threaten the health of coral reefs • Show how saltwater is more dense than freshwater
Resources • *Learner access to the internet* • *‘Explorer’ workbook* • *A pine cone*	***Resources*** • *‘Explorer’ workbook* • *Audio and visual recording equipment*	***Resources*** • *‘Explorer’ workbook* • *‘Researcher’ workbook* • *Materials needed for sunlight experiment (see workbook)*	***Resources*** • *‘Researcher’ workbook* • *Materials needed for water density experiment (see workbook)*
Key vocabulary **Survive:** continue to live or exist. **Thrive:** grow well; flourish.	**Key vocabulary** **Tolerance:** being able to live with something. **Nutrient:** food needed for life and growth.	**Key vocabulary** **Global warming:** the long-term heating of the earth's surface observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in the earth's atmosphere.	**Key vocabulary** **Sedimentation:** the settling of matter that settles at the bottom of a liquid. **Decomposition:** rotting; decaying. **Density:** how much space an object or substance takes up (its volume) in relation to the amount of matter in that object or substance (its mass).

‘Fragments of hope’ scheme of work			
B3	**B4**	**B5**	**B6**
What is the impact of these threats?	**A study of a UK coral reef system.**	**A study of one other coral reef system (of choice).**	**What is affecting the world’s coral reefs? (1)**
Learning outcomes *In this lesson learners will learn:* • *Impact of global warming + rising sea levels on Belize coral reefs*	***Learning outcomes*** *In this lesson learners will learn:* • *A coral reef system found on the UK coastline*	***Learning outcomes*** *In this lesson learners will learn:* • *A coral reef system (of choice)*	***Learning outcomes*** *In this lesson learners will learn:* • *The effects of either fishing, pollution, climate change or tourism on coral reefs*
Learning activities • Explore ways in which climate change and rising sea levels cause damage to coral reefs	**Learning activities** • Create ‘A Guide to a UK coral reef’	**Learning activities** • Create a guide to a coral reef system (of choice)	**Learning activities** • Research information and create a presentation on the effects of either fishing, pollution, climate change or tourism on coral reefs
Resources • *‘Researcher’ workbook* • *Learner access to the internet* • *https://fragmentsofhope.org/teachers-corner/: USEFUL VIDEOS; ‘to-verify-Waterproof-Bleaching-ID-‘ pdf* • *TEM Belize Coral Reefs Map*	***Resources*** • *‘Researcher’ workbook* • *Learner access to the internet*	***Resources*** • *‘Researcher’ workbook* • *Learner access to the internet*	***Resources*** • *‘Researcher’ workbook* • *Learner access to the internet*
Key vocabulary **Climate change:** long-term shifts in temperatures and weather patterns. **Acidification:** becoming acidic**.** **Diverse:** showing variety; being different. **Developing countries:** a poor country that is seeking to become more advanced.	**Key vocabulary**	**Key vocabulary**	**Key vocabulary**

‘Fragments of hope’ scheme of work			
B7	**B8**	**B9**	**B10**
What is affecting the world’s coral reefs? (2)	**How is climate change, plastic waste etc affecting all of us? (1)**	**How is climate change, plastic waste etc affecting all of us? (2)**	**How is climate change, plastic waste etc affecting all of us? (3)**
Learning outcomes *In this lesson learners will learn about:* • *What is affecting coral reefs*	***Learning outcomes*** *In this lesson learners will learn about:* • *The causes of climate change*	***Learning outcomes*** *In this lesson learners will learn about:* • *The effects of climate change*	***Learning outcomes*** *In this lesson learners will learn about:* • *The problem of plastic waste*
Learning activities • Share presentations on the effects of either fishing, pollution, climate change or tourism on the world’s coral reefs • Create an infographic to summarise what is affecting the world’s coral reefs	**Learning activities** • Identify which activities might contribute to climate change	**Learning activities** • Write a newspaper article reporting on a storm or flooding experienced locally or seen on the news	**Learning activities** • Debate the benefits of plastic and the issue of plastic waste
Resources • *‘Researcher’ workbook* • *Learner access to the internet*	***Resources*** • *‘Researcher’ workbook*	***Resources*** • *‘Researcher’ workbook*	***Resources*** • *‘Researcher’ workbook*
Key vocabulary **Infographic:** information shown in a graphic form designed to make the data easily and immediately understandable.	**Key vocabulary** **Atmosphere:** the envelope of gases surrounding the earth. **Greenhouse gases:** gases in the earth’s atmosphere that trap heat.	**Key vocabulary** **Ecosystems:** a biological community of interacting organisms and their physical environment.	**Key vocabulary** **Biodegrade:** rot naturally in a way that is not harmful. **Plankton:** tiny organisms that drift or float in the sea or in freshwater. **Microplastics:** very small pieces of plastic debris.