### PENANG SANGAM HIGH SCHOOL P.O.BOX 44, RAKIRAKI

## **LESSON NOTES**

Subject: <u>Basic Science</u> Week 11 Year/Level: <u>9</u>

Strand	1 : LIVING THINGS AND THE ENVIRONMENT
Sub Strand	1.2 : LIVNG TOGETHER
Content Learning Outcome	Discover and discuss the features of the environment in terrestrial and aquatic ecosystems and account for organisms adaptability to such environment for survival.

## **Soft Coral**

✓ lacks calcium carbonate skeletons so they do not contribute to the growth of a reef.

TYPE	DIAGRAM	FEATURES
Horny Corals		<ul> <li>✓ Named not because of their sex drive but because their skeleton is made of a horny substance called gorgonin.</li> <li>✓ Often very colourful : orange and red.</li> </ul>
Stinging Corals		<ul> <li>✓ Consist of a series of flattened branches</li> <li>✓ Usually yellow-brown or orange</li> <li>✓ If you get stung by one of these, the best treatment is to cover infected area with vinegar or any diluted acid</li> </ul>

## **Features of the Environment**

- ✓ *Environment*: everything that is external to the organism.
- ✓ Both nonliving and living factors interact to make up the total environment of organisms.
- ✓ Abiotic features of the environment vary greatly from place to place.
- ✓ The greatest diversity exists between the abiotic features of an aquatic (water) environment and a terrestrial (land) environment.
- ✓ The distribution, diversity and numbers of plants and animals found in ecosystems are determined by the biotic and abiotic factors.

#### **Abiotic Factors**

- > non-living features of the environment.
- rarely threaten the survival of a species but will greatly affect their populations.
- ➤ affect the type of ecosystem and therefore the distribution and abundance of organisms within that ecosystem.
- **Physical factors** 
  - \* Temperature
  - **\theta** Light
  - Landform
  - Tides
  - shelter

# **Chemical factors**

- \* amount of water
- salinity
- soil nutrients

# **Biotic factors**

- living organisms that occur in the environment.
- ➤ distribution and abundance of organisms in an ecosystem is greatly affected by the organisms that live in the ecosystem.
- An organism may be affected by:
  - \* Activities of members of the same species:
    - competing for resources
    - mate for reproduction.
  - **Activities of members of different species.** 
    - source of food
    - predator or a parasite
    - disease causing organism

#### **ACTIVITY:**

1.	State tl	ne reason why soft corals does not contribute to growth of a reef.
2. Define the following and give an example:		
	a)	Abiotic factor.
	h)	Biotic factor.
	0)	
		STAY SAFE