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

LESSON NOTES

Subject: Basic Science **Year/Level: 10**

Week 7

Strand	1 : LIVING THINGS AND THE ENVIRONMENT
Sub Strand	1.3 : BIODIVERSITY,CHANGE AND SUSTAINABILITY
Content Learning Outcome	Research the importance of the marine ecosystem and investigate man's activities that have influenced the resources of the different communities of this ecosystem and describe measures taken to conserve them.

Tropical Shoreline

- shoreline formed when the water merges with the land (often submerged in water and gets exposed when the water pulls back).
- Water:
  - ✓ source of life
  - ✓ makes its way to the land, it also brings along different life forms with it.
  - ✓ habitat to many living organisms and aquatic animals.

- Shores:
  - ✓ shallow portion of the shore is home to many different, unique and interesting animals and plants.
  - ✓ also a source of food to humans and birds like seagulls.
  - ✓ different types of shores all over the world:
    - rocky
    - sandy shores

    } life forms are different on these two types of shores.
- Shoreline area:
  - ✓ falls between the high tide and low tide mark.
  - ✓ Animals in this area are able to adapt to being both underwater and in open air.

    Example:
    - Crabs
    - Urchins
    - Starfish
    - Clams
    - Snails
    - Seaweeds
    - Mussels

Corals

- can exist as individual polyps, or in colonies and communities that contain hundreds to hundreds of thousands of polyps.

- **How Corals feed**
  - In addition to the symbiotic relationship with algae, most corals capture and consume live prey ranging from microscopic zooplankton to small fish, depending on coral size.
  - Using its tentacles that extend outside it body, the coral uses its **nematocysts, or stinging cells**, to stun and kill its prey before passing it to its mouth.
  - Once the food has been digested, the waste is expelled from the same opening.

- **Reproduction**
  - Corals are unique
  - capable of reproducing both sexually and asexually.

- can be divided into two groups:
  i. Hard corals
  ii. Soft corals

Note: Most reef-building corals have a mutually beneficial relationship with microscopic unicellular algae called zooxanthellae that live within the cells of the coral.

ACTIVITY:

1. Identify any three animals that are present at the shoreline area?
   a) _____
   b) _____
   c) _____

2. What is a Zooxanthellae?

   _____

3. Name the stinging cell in corals that is used to stun and kill its prey.

   _____

4. Explain how a Coral feeds?

   _____

   _____

   _____

   _____

…STAY SAFE…