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

#### **LESSON NOTES**

#### Subject: Basic Science

Year/Level: <u>10</u>

#### <u>Week 11</u>

Strand	1 : LIVING THINGS AND THE ENVIRONMENT
Sub Strand	1.2 : LIVNG TOGETHER
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.

#### 2. Fishes

## **Structural Features:**

- $\checkmark$  aquatic animals.
- ✓ have streamlined bodies for fast swimming
- $\checkmark$  covered with scales with two sets of paired fins
- $\checkmark$  have gills throughout their lives (to extract oxygen from water)
- ✓ several unpaired fins
- ✓ lay eggs.
- ✓ are "cold-blooded" adjust body temperature to environment.
- $\checkmark$  range in size.
- $\checkmark$  human beings found more uses for marine life aside from their function in the food chain.

# ✓ <u>Source of food:</u>

- Coastal communities forage for food in:
  - ✤ Estuaries
  - ✤ Marshes
  - ✤ Wetlands
  - ✤ Mangroves
  - ✤ bay areas.
- ✓ <u>Sustainable management of fish resources:</u>
  - recognizes that there is also a responsibility to look after the marine environment, and ensure that fishing practices are in balance with the local ecology.

## ✓ Effects of Pollution

- > polluted section of the sea (e.g. from an oil spill)
- might block out sunlight which kills the phytoplankton, which are tiny aquatic plants at the bottom of the food chain.

- > there are fewer plants for shrimp and small fish to feed on, so some starve.
- Larger fish have fewer shrimp or small fish to feed on and so they may starve too, or move to another feeding ground.
- > This increases the pressure on other species trying to share the same food source.
- Growing human populations are demanding more food, and this puts pressure on many food chains.
- ➤ In some areas, fishers may catch too many fish.
- In some parts of the world many of the big fish have been caught so fishers are now catching smaller, younger fish before they reach their full size.
- > These younger fish may not have had a chance to produce their own young.

## ✓ <u>Overfishing</u>

- $\blacktriangleright$  demand for fish supply became greater than before.
- $\blacktriangleright$  some types of fish have been fished so much
- > they cannot maintain their population, so there are fewer fish year after year.

# **ACTIVITY:**

- 1. Why do fishes have streamlined bodies?
- 2. What is the purpose of gills in fishes?
- 3. Explain how pollution increases the pressure on other species to share the same food source.

