

LESSON NOTES

Subject: Basic Science

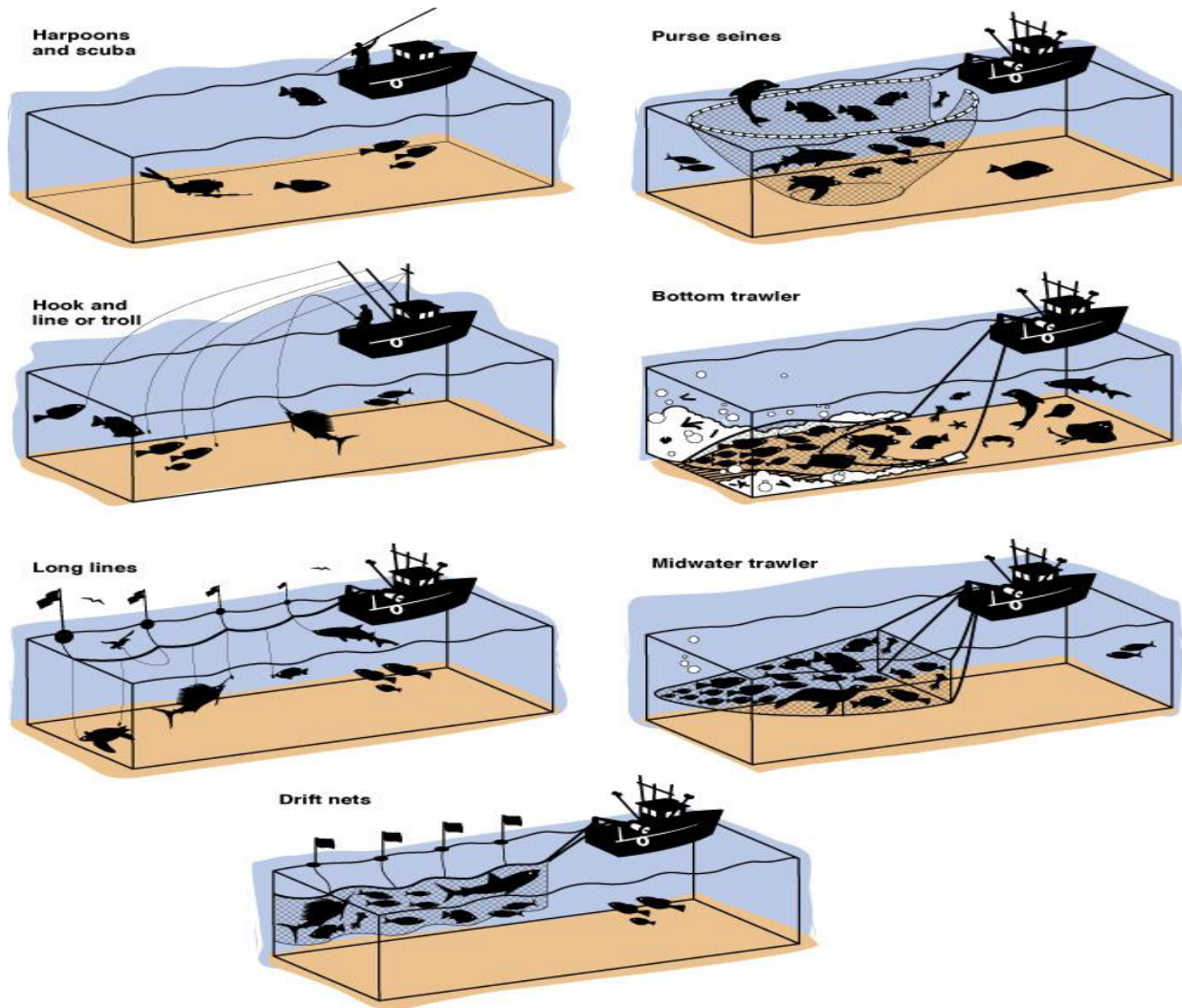
Year/Level: 10

Week 16

<b>Strand</b>	1 : LIVING THINGS AND THE ENVIRONMENT
<b>Sub Strand</b>	1.3 : BIODIVERSITY,CHANGE AND SUSTAINABILITY
<b>Content Learning Outcome</b>	Explore and describe the importance of traditional and contemporary methods conserving the marine ecosystem for sustainability.

Sustainable fishing:

- guarantees there will be populations of ocean and freshwater wildlife for the future.



### Efficient Fishing Methods:

Purse seine fishing	Long lining
<p>*uses a net to herd fish together and then envelop them by pulling the net's drawstring.</p> <p>*The net can scoop up many fish at a time, and is typically used to catch schooling fish or those that come together to spawn.</p>	<p>*type of fishing in which a very long line—up to 100 kilometres (62 miles)—is set and dragged behind a boat.</p> <p>*These lines have thousands of baited hooks attached to smaller lines stretching downward.</p>

### Overfishing




- ❖ Taking wildlife from the sea faster than populations can reproduce.
- ❖ Can catch hundreds or thousands of fish at a time.
- ❖ If a fish population is small, it cannot easily replenish itself through reproduction.



- ❖ Purse seining, long lining and many other types of fishing can also result in a lot of by catch, the capture of unintended species.
- ❖ Long lines intended to catch blue fin tuna, for instance, can ensnare birds, sea turtles, and other fish such as swordfish.

### **Traditional Fijian cultures**

- ❖ Relied on Ocean resources
- ❖ Most common historical fishing practices:
  - hook and line  
Hooks constructed of bone, shell, or stone were designed to catch specific species.
  - Spearfishing
    - ✓ craft 2-meter (6-foot) spears.
    - ✓ dive underwater or spear fish from above, again targeting specific animals.
  - cast nets.
    - ✓ used by fishers working individually or in groups
    - ✓ could be cast from shore or canoes, catching groups of fish
  
- ❖ Uses of marine organism
  - Shark dorsal fins
    - Used to make simple bowl of soup but no other part of the shark is used.
    - Many sharks are highly vulnerable to overfishing because they grow slowly, mature late and produce a small number of young.
    - Sharks are now listed as an endangered species in Fiji.
  - Corals
    - Urgent need to conserve coral reefs to safeguard their valuable resources.
    - Action is needed to put large areas of reefs aside under full protection where fishing and damaging activities are prohibited, but non-damaging activities such as sustainable (or environmentally sensitive) tourism are encouraged to provide alternative incomes.

### **Ways of protection can be:**

-  promotion of non-damaging activities on coral reefs such as environmental tourism
-  prevention of dynamite and cyanide fishing for live fish trade
-  control of pollution and deforestation in tropical catchment areas near coral reefs

-  the reduction of greenhouse gases that are driving climate change
-  aid from donor countries to be used in the protection of coral reefs.

**ACTIVITY**

1. List three (3) most common historical fishing practices in Fiji.

- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_

2. Name and explain the two efficient fishing methods mentioned above.

- a)  
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- b)  
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...STAY SAFE... 