

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Pakistan School  
Kingdom of Bahrain

# Marine Resources

CLASS: 10TH

# Rules of the Class

- ❖ Be on **time**
- ❖ Enter the class with your **name** and **CPR number**
- ❖ **Respect** all participants
- ❖ Do **not** create any disturbance
- ❖ **Raise your hands** for questions (the teacher will respond when the time is suitable)
- ❖ Pay **attention** to the teacher
- ❖ Follow the **time table**

# Lesson Objectives

At the end of this lesson, students should be able to identify and explain each of the following:

- ❖ **Marine resources**
- ❖ **Sources of food**
- ❖ **Sea minerals**
- ❖ **Ornamental items**
- ❖ **Medicinal products**





# Marine Resources

# Marine Resources

- ❖ Pakistan has a vast coastal area about 700 km long
- ❖ The Arabian sea is considered a warm water channel
- ❖ It links up Pakistan through marine trade routes with international sea parts
- ❖ The sea is a valuable source of food, minerals, ornamental items and medicinal plants





**Arabian Sea**

# Source of Food (fish)

- ❖ The sea along coastal areas is a great source of food
- ❖ About 400 varieties including tuna, sardine, shrimp and salmon are found in it
- ❖ Fish and fish-products like cod-liver oil are used locally and a part is exported to earn foreign exchange
- ❖ To improve fisheries activities the government is taking a number of measures including establishment of training centre, hatchery complex.
- ❖ By doing so, the measures upgrade socio-economic conditions of fishers.



**Tuna**



**Sardine**



**Shrimp**



**Salmon**

# Sea minerals

- ❖ Sea water is a great source of minerals
- ❖ It consists of different salts like magnesium sulphate, potassium sulphate, sodium sulphate etc
- ❖ These salts can be recovered from seawater (e.g. by evaporation)
- ❖ Magnesium metal is a very important metal obtained from seawater
- ❖ Bromine and iodine are also obtained for seawater



**Bromine (liquid)**



**Iodine (solid)**

# Medicinal Products

- ❖ Plants and animals found in sea are used as medicines from a long time.
- ❖ The very dangerous diseases like cancer, AIDS are being cured by medicines derived from marine life.

# Ornamental Items

- ❖ Sea is also a source of ornamental items
- ❖ Different types of corals, animals and plants are used for ornaments
- ❖ Corals are famous for their multi-coloration
- ❖ Multi-colored plants are used for interior decoration
- ❖ Skin of several sea-animals are used for making purses, coats, shawls, garments and other ornamental products



**Coral Reef**





**Coral Jewelry**





**Alligator skin shoe**

# Mica

- ❖ It is a **group of minerals** of aluminum, potassium and silicon compounds
- ❖ It is a **shiny** mineral with a **layered structure**
- ❖ It is a **non-conductor** of electricity
- ❖ It is used as **insulator** in electronic and electrical devices such as **transistor, dynamos, fans, heaters** and **irons**



# Iron

- ❖ It is a **blackish brown** mineral
- ❖ The development of a country depends upon this mineral
- ❖ **Karachi** has the largest steel mills in Pakistan
- ❖ It is used to make **steel** and a number of other **alloys**
- ❖ Alloy is a metal made by **combining two or more** metallic elements  
(especially to give strength or resistance to corrosion)



**Iron ore**

# Salt

- ❖ **Khewra (Jhelum)** has the largest deposits in Pakistan
- ❖ It is considered the **biggest source** of salt in the world
- ❖ It is commonly used as **table salt**
- ❖ It is also used to manufacture **caustic soda, washing soda** and **baking soda**



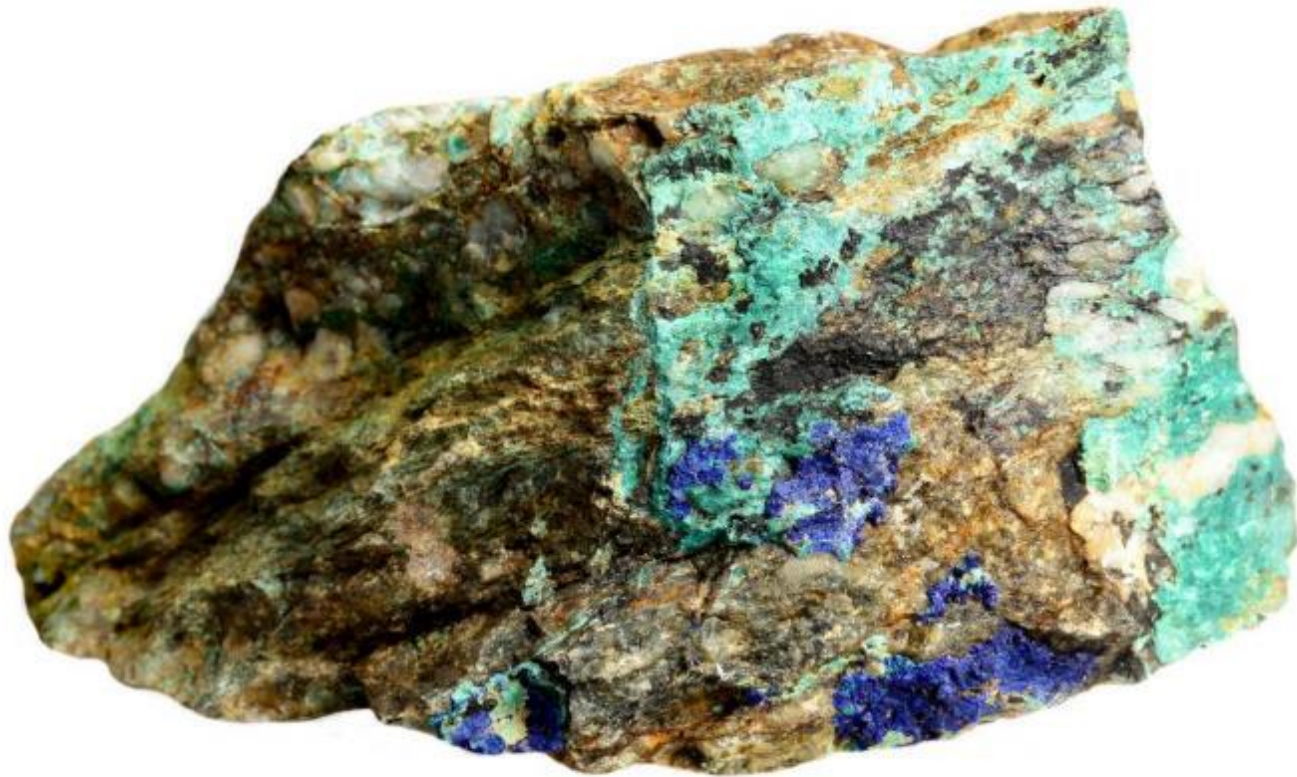


**Salt rock**



# Copper

- ❖ This metal is **second** in elements to iron
- ❖ Pakistan has vast deposits of copper in **Sandak** and **Baluchistan**
- ❖ Copper metal is a **high conductor** of electricity and heat
- ❖ It is used to prepare **electrical cables** and **wires** and other **telecommunication devices**



**Copper rock**

A stylized illustration in shades of green and white. In the center, two figures are shown from the waist up, with their arms raised in a celebratory or active gesture. The background is filled with large, interlocking gears of various sizes. Scattered throughout are small white stars, dots, and abstract shapes, creating a dynamic and energetic feel. The overall composition is balanced and visually engaging.

# ACTIVITIES

# Fill In The Blanks

1. The coastal area of Pakistan is \_\_\_\_\_ km long.
2. The Arabian sea is a valuable source of food, \_\_\_\_\_ and \_\_\_\_\_ items.
3. There are about \_\_\_\_\_ varieties of fish present in coastal areas.
4. \_\_\_\_\_, animals and plants are used for ornaments.
5. Corals are famous for \_\_\_\_\_-\_\_\_\_\_.

# True / False

1. Cancer and AIDS are being cured by medicines derived from marine life.

**T/F**

2. Sea plants are not used as medicines. **T/F**

3. Sea water is a great source of minerals. **T/F**

4. Magnesium metal is not commercially obtained from sea water. **T/F**

5. Bromine and iodine are obtained from seawater. **T/F**

**FINALLY...**



# Plenary

## Questions:

**Q1.** How long is the costal area of Pakistan?

**Ans:** 700 km.

**Q2.** Is Arabian sea a warm water channel?

**Ans:** Yes.

**Q3.** Which things are obtained from the sea?

**Ans:** Fish, minerals, ornamental items.

**Q4.** Which metal is obtained from sea water?

**Ans:** Magnesium metal.



# Homework

## Questions:

**Q1.** Write a note on the following:

- A. source of food from sea
- B. Sea minerals
- C. Medicinal products

**Q2.** Describe ornamental items.

**Q3.** Give a brief description of the mineral resources of Pakistan.

Four white daisy flowers with yellow centers are arranged on a green background. One large flower is on the left, and three smaller flowers are positioned around it: one above and to the right, and two below.

# As-salamu Alaikum

MAY ALLAH SWT BLESS YOU ALL