

Conserving Coral Reef Ecosystems Of Aqaba

Teacher : Kawther Abu Sahyoun (Biology – Ecology)
Students : 9th – 12th grade

Overview

The most significant feature of Jordan's marine environment is the coral reef ecosystems. coral reefs are biodiversity reservoirs of 450 species of fish, and more than 127 types of coral formation, significant sources of food and income (mainly tourism), the coral reefs of Aqaba , have been at the center of the economic development of Aqaba city . Consequently, these coral reefs are among the most threatened area in the Red Sea. There are many threats such as overfishing , construction of urban area along the coastline , carbon pollution, possibility to execute Red Sea to Dead Sea canal ..etc

We must increase the awareness to protect coral reefs ecosystems and encourage national , regional and international initiatives , cooperation and commitment to conserve and sustainably manage coral reefs.

Procedure

Activity 1:

Coral reefs are primary source of food for people , provide various chemicals compound that is used in medicines, and coral reefs tourism is highly attractive.

<https://myhero.com/360-coral-reefs-live-below-the-surface>

https://myhero.com/film_SaveCoral

Explore more resources and check the followings:

- 1- Define the followings: Coral , biodiversity , global warming,
- 2- why are coral reefs called the rain forests of the sea , link it to its influence to biodiversity?
- 3- What are the consequences of destruction coral reef ecosystems ?
- 4- Describe the coral reef ecosystems status in Aqaba, and describe it's importance to Aqaba.

Outcomes :

- Understand the importance of Coral Reef ecosystems to biodiversity.
- Understand the value of coral reefs biodiversity

Activity 2:

https://myhero.com/SCIENTISTS_RACE_TO_SAVE_CORAL_REEFS_AP

https://myhero.com/HMSC_2010

https://myhero.com/film_restoringcoralreefs

Discuss the above resources and answer the followings:

- 1- What is our role to protect coral reef ecosystems?
- 2- Define the followings: acidification , coral thermal tolerance ?
- 3- what is restoring coral reefs project main objectives (connect it with coral extinction)?

Activity 3

[Marine Science Station](#) , [The Royal Marine Conservation Society of Jordan \(JREDS\)](#)

Do you think that national or regional organizations that work to protect coral reef ecosystems are enough without that need of international collaboration , assistance (link this with sustainable Development of ecosystem).

Outcomes :

Increase students awareness to protect coral reefs.

Activity 4

https://en.wikipedia.org/wiki/Red_Sea%E2%80%93Dead_Sea_Water_Conveyance#Project_features_and_benefits

Have you heard about Red Sea to Dead Sea canal project , check the influence of such project if it is executed to the coral reef ecosystems , mention the advantages and disadvantages of this project , do you agree this project ?

Activity 5

Search for individuals , initiatives , activities and / or organizations that help to protect Aqaba coral reef ecosystems, write myhero story about their contribution , project , and /or plans.

Outcomes :

Engage with their society and investigate the future possible threats to coral reefs and find solutions

Resources

- <https://www.epa.gov/coral-reefs/what-you-can-do-help-protect-coral-reefs>
- <https://coral.org/coral-reefs-101/coral-reef-ecology/coral-reef-biodiversity/>
- <https://www.wideopenprojects.com/about-us/>
- <https://www.sciencedirect.com/science/article/pii/S235248551830519X>
- <https://www.facebook.com/Aqabacoralreef/>

Assessment

The five activities will be divided so that each group will discuss one activity, the assessment will be according to the following standards:

1- Students are able to use all the internet resources and give clear and comprehensive answers. scale : 8-10

2- Students are able to use resources but their answers are comprehensive, covering all requirements , but they are fragmented and unconnected. scale 6-8

3- Student are unable to use the resources properly, incomprehensive answers. scale 5.

4- Student are unable to use resources, they give incomprehensive and incorrect answers . scale 4 to 3.