



## Introduction to UAE Mangroves

Read the following text and answer the questions that follow:

Mangroves are a vital part of the UAE's ecosystem, providing habitat for a wide range of flora and fauna. They play a crucial role in protecting coastlines from erosion and supporting the local fishing industry. In this lesson, we will learn about the importance of mangroves and create a 3D model of a mangrove ecosystem.

1. What is the main role of mangroves in the UAE's ecosystem?

2. Why are mangroves important for the local fishing industry?

## Importance of Mangroves

Read the following text and answer the questions that follow:

Mangroves are essential for biodiversity, providing a home for many species of plants and animals. They also help to protect the coastline from erosion and support the local fishing industry. Additionally, mangroves play a crucial role in maintaining water quality and preventing pollution.

1. What is the importance of mangroves for biodiversity?

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2. How do mangroves help to protect the coastline from erosion?

## Designing a 3D Model

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Follow these steps to design your 3D model:

1. Research the different components of a mangrove ecosystem, including the mangrove trees, water, and wildlife.
2. Sketch out a design for your 3D model, considering the scale and materials you will use.
3. Write a short paragraph explaining your design and the materials you will use.

## Building a 3D Model

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Use the materials provided to build your 3D model:

### Group Task:

Work in groups to build your 3D models, considering the different components of the ecosystem and how they interact with each other.

Component	Materials	Description
Mangrove Trees	Cardboard, clay	
Water	Blue paper, glue	
Wildlife	Clay, paint	

## Presenting the Model

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*Present your 3D model to the class:*

1. Explain the different components of your model and how they interact with each other.
2. Discuss the importance of mangroves and why they are essential for the UAE's ecosystem.
3. Answer questions from your peers about your model.

## Conclusion

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*Write a short reflection on what you learned:*

In conclusion, mangroves are a vital part of the UAE's ecosystem, providing habitat for a wide range of flora and fauna. By creating a 3D model of a mangrove ecosystem, we have learned about the importance of mangroves and how they interact with other components of the ecosystem.

### **Individual Reflection:**

1. What was the most surprising thing you learned about mangroves?

2. How will this learning change your actions in the future?

## Activities and Questions

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Answer the following questions:

1. What are the main components of a mangrove ecosystem?

2. Why are mangroves important for biodiversity?

3. How do mangroves help to protect the coastline from erosion?

## Glossary

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Define the following terms:

**Mangrove**

A type of tree that grows in coastal saline or brackish water

**Ecosystem**

A community of living and non-living components that interact in a specific environment

**Biodiversity**

The variety of different plants, animals, and microorganisms that live in an ecosystem or on Earth as a whole

## Resources

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Explore the following resources:

- UAE Mangrove Conservation Society
- National Geographic: Mangroves
- WWF: Mangrove Conservation

## Assessment

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*Your participation in class discussions and activities, as well as the quality of your 3D model and presentation, will be assessed.*

Please review the assessment criteria and make sure you understand what is expected of you.

