



Educational Activities at Jubail Mangrove Park

Nature Wave Connect offers a programme of exciting activities designed to enrich learning through the unique environment of the mangroves. This guide introduces the range of experiences available and highlights the skills and knowledge pupils will explore.

To book, please contact
connect@nature-wave.org

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Escape the Boardwalk!

Mangrove Puzzle Adventure

Take part in the Escape the Boardwalk Challenge, an escape room style interactive adventure set along the Jubail Mangrove Boardwalk. Students will use maps, solve puzzles, and crack codes while discovering the vital role mangroves play in protecting our planet.

Suggested Activity Time:

2 hours on-site at Jubail Mangrove Park

How it works

Can your students crack the code and escape the boardwalk?

Working in small teams, students embark on an exciting, fast-paced challenge around the Jubail Mangrove Park boardwalk. Beginning at different learning stations, teams race against the clock as they tackle a series of fun, hands-on activities that bring the incredible world of mangroves to life.

With 11 interactive stations to explore, students discover fascinating facts about the mangrove ecosystem through creative, collaborative and engaging challenges. When the buzzer sounds, it's time to move on—but first they'll need to remember what they've just learnt!

At each new station, teams answer a question based on the previous challenge. Every correct answer reveals a letter, and by the end of the adventure they'll have collected 11 letters. Their final mission? Work together to solve the mystery anagram and Escape the Boardwalk!

Learning stations include;

1. **Piece together a Jigsaw Puzzle to reveal hidden information.**
2. **Practise performance poetry by learning a verse from a mangrove poem to gain a clue.**
3. **Crack a lock box then use a magnifying glass to uncover vital mangrove facts**
4. **Learn about carbon capture at a live scientist station.**

Why take part?

- ✓ Engaging, puzzle-based learning
- ✓ Builds resilience, collaboration, and critical thinking
- ✓ Links local ecosystems to climate change awareness
- ✓ Provides a memorable outdoor learning experience

Curriculum links

- ✓ Geography & Environmental Education
- ✓ Science (biodiversity and ecosystems)
- ✓ English (communication)
- ✓ STEAM (creativity and inquiry)
- ✓ Problem Solving & Teamwork

Mangrove Mission

Step into an exciting investigation along the Jubail Mangrove Boardwalk. KS1 Pupils become nature detectives as they explore the mangroves, uncover hidden clues, and solve challenges linked to **real mangrove wildlife and habitats**. Using observation, teamwork, and problem-solving skills, children discover fascinating facts about this unique ecosystem and the important role mangroves play in supporting biodiversity and protecting our environment.

Suggested Activity Time:

90 minutes

How it works

Stage 1

Pupils become nature detectives as they explore the Jubail mangrove boardwalk on a guided discovery trail. Hidden around the boardwalk are colour-coded clues with answers. Children use their worksheet to match answers to questions as they search the mangroves and walkway.

Stage 2

From here, pupils take on the role of **wildlife recorders**, spotting local animals and completing tally charts to collect real data on biodiversity. The experience finishes at the viewing platform, where pupils create mangrove-inspired artwork.

Why take part?

- ✓ Hands-on outdoor learning experience that brings science and maths to life in a real-world setting
- ✓ Pupils are active, engaged, and curious as they explore a unique natural habitat
- ✓ Develops teamwork, observation skills, and independent thinking
- ✓ Provides a memorable experience of the natural world that cannot be recreated in the classroom

Curriculum links

- ✓ **Science (KS1):** Living things and their habitats; identifying and classifying animals; observing seasonal and environmental changes
- ✓ **Maths (KS1):** Data handling through tally charts, counting, comparing and recording results
- ✓ **Working scientifically:** Observation, recording data, pattern spotting, and enquiry-based learning





Lights, Camera, Mangroves!

Mini Documentary Challenge

Nature Wave Connect Connect invites schools to take part in an exciting filmmaking experience set in the heart of Jubail Mangrove Park. Students will explore this unique ecosystem, develop essential videography skills, and create their own short documentary with a strong sustainability message. The short films will not only highlight the importance of protecting the mangroves but will also act as a powerful tool to persuasively promote the nature reserve, inspiring more people to visit the incredible nature reserve and connect meaningfully with its unique environment.

Suggested Activity Time:

2 hours on-site at Jubail Mangrove Park (+ pre/post sessions)

How it works

Stage 1 – Building skills and anticipation

Four fully resourced pre-learning sessions are provided – *these can be delivered in school time, through after-school clubs, or set as homework.*

1. **Camera Shots & Angles** – learn professional videography techniques and try them out.
2. **Storyboarding** – understand the power of storyboarding in film and practise planning sequences.
3. **Mangrove Knowledge** – discover the ecology, importance, and mystery of mangrove forests and select key information.
4. **Creating** – storyboard and script a short mangrove documentary.

Stage 2 – On-site experience at Jubail Mangrove Park

Students film their documentaries on location at the nature reserve, guided by Nature Wave Connect Connect Leaders, applying the skills they have developed.

Stage 3 – The Cut Room

After visiting the mangroves, students edit their footage using recommended free editing apps to produce their final documentaries.

Stage 4 – Competition and celebration

Schools are encouraged to host a screening event (e.g. a movie afternoon) before submitting their selected best entries to us. A Nature Wave Connect Connect panel then selects the top three entries from each school, with winners progressing to the annual UAE-wide final.

Why take part?

- ✓ Hands-on environmental learning
- ✓ Inspires teamwork and creativity
- ✓ Builds awareness of local ecosystems
- ✓ Encourages sustainability advocacy

Curriculum links

- ✓ English (writing, speaking & listening)
- ✓ Geography
- ✓ Environmental Education
- ✓ STEAM & Computing

The Great Hive Heist

Set indoors in the new Jubail Mangrove Park research center Pupils step into an immersive detective-style investigation where pupils are tasked with solving a shocking crime — the bees have been stolen! Working as junior investigators, children must uncover clues, analyse evidence, and eliminate suspects to discover who is responsible before time runs out.

Suggested Activity Time:

60 minutes

How it works

Placeholder text, please update

Pupils are placed into small detective teams. They are introduced to a sealed evidence box marked “**DO NOT OPEN**”, setting the scene for a high-stakes investigation linked to the mystery of the missing bees.

Teams are given a suspect list and a series of six interconnected clues. Each clue is carefully designed to introduce key learning about bees, including hive structure, pollination, bee species, behaviour, and their role in ecosystems. Pupils use problem-solving, reasoning, and observation to eliminate suspects and find the thief!

Why take part?

- ✓ Transforms pupils into real scientists and forensic-style detectives through a fast-paced investigation
- ✓ Builds resilience, teamwork, and communication skills
- ✓ Develops high-level reasoning, deduction, and scientific observation skills
- ✓ Combines excitement, challenge, and discovery in a memorable learning experience
- ✓ Brings science and maths to life in a completely new and engaging way

Curriculum links

Science (KS2):

- ✓ Living things and their habitats (including classification and adaptation)
- ✓ Working scientifically (observing, testing, recording, and drawing conclusions)
- ✓ Plants and pollination (role of bees in ecosystems)

Maths (KS2):

- ✓ Problem solving and number operations
- ✓ Interpreting and using data
- ✓ Logical reasoning and multi-step challenges

The background image shows two female students in school uniforms (light blue shirts and plaid skirts) standing outdoors in a mangrove park. They are both looking at a tablet held by the student on the right. The student on the left is pointing at the screen. The background is a dense mangrove forest with green foliage and white tree trunks. The entire image has a semi-transparent purple overlay.

Bioblitz Challenge

A Citizen Science Race Against Time (Year 9+)

Nature Wave Connect Connect invites schools to take part in a fast-paced survey to discover and record as many species as possible within Jubail Mangrove Park, combining A.I. tools, teamwork, and expert guidance.

Suggested Activity Time:

2 hours on-site at Jubail Mangrove Park (+ pre/post sessions)

How it works

Stage 1 – Building skills and anticipation

An introduction to modern-day citizen science methods, connectedness to nature and responsible wildlife photography - *this can be delivered in school time, through after-school clubs, or set as homework.*

Stage 2 – On-site experience at Jubail Mangrove Park

Students work with an expert guide to record species across the reserve. Observations are identified using A.I.-powered apps. A friendly competition can be organised between groups, classes, or schools. Certificates are awarded for ‘Discovery of the Day’ and ‘Biodiversity Hero’.

Stage 3 – Post-learning

Creative follow-up sessions extend the learning - *these can be delivered in school time, through after-school clubs, or set as homework, examples include:*

1. **Maths in the Mangroves** - using real citizen science data collected in the park, solve puzzles and tasks.
2. **Mangrove Top Trumps** – design trading cards with photos, facts, and “power stats” for species recorded.
3. **Mangrove Adventures** – write imaginative stories featuring species discovered.
4. **Mangrove Music** – compose songs or raps highlighting mangrove biodiversity.

Stage 4 – Competition and celebration

Schools’ observations contribute to Nature Wave Connect Connect’s ongoing biodiversity monitoring of Jubail Mangrove Park. Schools stats and stand out wildlife photos will be shared on official social media channels.

Why take part?

- ✓ Authentic citizen science with ecological impact
- ✓ Cross-curricular creativity and research skills
- ✓ Builds teamwork and communication
- ✓ Opportunities for local and national recognition

Curriculum links

- ✓ Science & Geography
- ✓ English (creative writing, speaking & listening)
- ✓ Art & Design
- ✓ Music
- ✓ Digital Literacy