



# Sand dunes through time - Newborough Warren

**Time needed for activity** 2-3 hours

**Location** Indoors or outdoors

## Context

This activity explores people’s relationship with sand dunes and how the natural resources they provide have been used over time.

Natural Resources Wales’ purpose is to pursue sustainable management of natural resources in all of its work. This means looking after air, land, water, wildlife, plants, and soil to improve Wales’ well-being, and provide a better future for everyone.

## Curriculum for Wales

### Humanities

- **What matters** - Enquiry, exploration, and investigation inspire curiosity about the world, its past, present, and future.
- **What matters** - Our natural world is diverse and dynamic, influenced by processes and human actions.

### Science and Technology

- **What matters** - Being curious and searching for answers is essential to understanding phenomena.
- **What matters** - The world around us is full of living things which depend on each other for survival.

### Languages, Literacy and Communication

- **What matters** - Language connects us.
- **What matters** - Expressing ourselves through languages is key to communication.

## Objectives

- Learners will be able to explain how the sand dune location your learners have studied has changed over time
- Learners will be able to understand how people that lived in the area have used natural resources from the dunes system and surrounding area over time

## Equipment and resources

- Resource cards - Sand dunes through time - Newborough Warren

## What to do

Situated in the south-western corner of Anglesey, Newborough Warren is one of the largest and finest dune systems in Britain. Shaped over thousands of years by the wind and sea, it is home to a dazzling array of plants and animals. The long beach is very popular with visitors, tourists, and locals alike with Newborough Forest being extensively used for recreation, including walking, cycling and horse riding.



If you would like to learn more about what there is to see and do on site, check out NRW's places to visit **Natural Resources Wales/Newborough National Nature Reserve and Forest, Anglesey** for information.

Your learners can find out more about the fascinating history of the sand dunes at Newborough Warren by completing our timeline activity. This activity can be completed:

- With your learners working in small groups, discussing, and sorting the cards into the correct chronological order.
- As a relay race. Find a suitable area for a running activity, ideally a flat area with no trip hazards. Split your learners into teams. You will need a set of **Resource cards - Sand dunes through time - Newborough Warren** for each team. Place each team's cards randomly, face down on the floor a few metres away from where the team is gathered. The first team member from each team, runs out, collects a card, and brings it back. The next team member then runs to collect a card and so on. In their team, your learners will need to work together to match up the correct description and put them in chronological order. The first team to fetch, discuss and correctly match a full suite of cards wins.
- With your learners working in small groups to create a human timeline. Give each learner a set of cards for a given year and ask them to hold them or peg them to their clothes, so that others in the group can see them. Can your learners work together to order themselves into the correct chronological order without talking?
- Once your learners are aware of the timeline of events, test their knowledge. With the cards placed face down on a flat surface and played as a game of matching pairs, learners take it in turns to turn the cards over. Can your learners match the events with the date cards? Whoever matches the most pairs of cards correctly is the winner.

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## Suggested key questions

- How has the sand dune system changed over time?
- How have the people that lived in the area used the natural resources provided by the dune system over time?
- If the sand dune system wasn't there would a village have established at the location anyway?

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## Adapting for different needs/abilities

### More support

- Remove some of the cards from the set.
- Complete the activity as a whole group.

### More Challenge

- Can your learners find out more information about the history of Newborough Warren and create additional cards to include in the timeline?

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## Follow up activity/extension

- Ask your learners to imagine they are a Newborough resident during the great storms of the 1330's. One day they are tending to their land and animals; the next their home and land has been buried under a desert of sand:
  - Can they describe the scene?
  - How would they have felt?
  - 200 acres or an area the size of 150 football pitches was buried overnight. Can your learners work out the size of this land area on Google Maps or DataMapWales? Instructions on how to do this are in our **Activity plan - Nature Champions**.
  - How many times the area of your settings' grounds would this have covered?



- Why not try out our **Activity plan - Nature Champions**. Theoretically, should the dune system be developed into a retail shopping centre? This desk-based activity sets the scene for learners to become nature champions. Putting their digital skills to good use, learners are tasked with investigating and researching the history and significance of a sand dune system before presenting their findings using persuasive language.
- Ask your learners to prepare a stop motion animation using our **Activity plan - Animating nature through stop motion**. Can your learners create an animation to demonstrate how sand dunes form? Our **Games and Activities - From a grain of sand to a dune** resource can be used to develop your learners' knowledge and understanding. Or how about creating an animation to tell the story of the history of the dunes?
- Can your learners plan, prepare and run a social media campaign to raise awareness of the history of the dunes? Our **Activity plan - Stimulating Stories** and accompanying **Worksheet - Stimulating Stories** will guide your learners through what to do.

### Harvesting marram grass at Newborough – a once thriving industry

- Weaving marram grass to make mats, ropes, nets, baskets and matting for keeping hay and corn dry was a thriving industry in Newborough between the 18th and 20th Century. After visiting Newborough in the 1770s, Thomas Pennant wrote that the area “now subsists by a manufacture of mats made of sea reed-grass”. While the men were farm workers on low wages the women, girls and sometimes boys, supplemented the family income by cutting marram grass from the dunes and plaiting it. Labourers in other communities sometimes suffered hardship because of low pay, but although the work that was sometimes scorned by outsiders, it ensured Newborough residents had a steady income. A sculpture commemorating the marram grass weaving industry can be found at the Natural Resources Wales Llyn Rhos Ddu car park.
- If you are visiting a sand dune system, cut a small amount of marram, and challenge your learners to have a go at weaving some marram cordage. If you are not planning a visit to a dune system, why not try the same activity with some long grass? Hard on the fingers? The mats woven by the Newborough weavers had to be 3 yards (2.74m) long by 1 yard (0.91m) wide and farmers used them to protect their hay from the elements whilst allowing it to breathe. The People's Collection Wales have a photo of **Ellen Williams of Newborough**, weaving marram grass to make mats.
  - Can your learners put themselves in Ellen's shoes and write a first-hand account of a typical day in her life?
  - Ask your learners to pretend they work for a television company that wants to produce a short film about the history of Newborough. If they had the opportunity to question Ellen, what would they ask her about her work?



## Other resources

- Planning a visit with your group? Sand dunes are often protected habitats and are potentially hazardous environments. To ensure you and your learners have a safe and enjoyable visit, get in touch with us before your **visit** to get permission for your planned activities. We've got a short and simple form for you to complete and in our reply, we'll tell you about any restrictions in place, help with maps and offer guidance. **Natural Resources Wales/Plan an event, activity, or project on our land.**
- Llys Rhosyr was one of the royal courts of Llywelyn Fawr - Llywelyn The Great (1172-1240) - who was Prince of Gwynedd in the 13th Century. The princes ruled by touring their realm and sitting in courts in small administrative areas called 'commotes'. Each had a Llys (court) and Llys Rhosyr was at the heart of the Menai commote near where Newborough parish church is now. A recreation of a Royal Court of the Princes of Gwynedd 'Llys Llywelyn', has been created at St. Fagans National Museum of History, Cardiff and was based on the surviving remains of Llys Rhosyr.

**Llys Rhosyr (heneb.co.uk)**

**Llys Llywelyn | National Museum Wales**

## Looking for more learning resources, information and data?

Please contact: **education@naturalresourceswales.gov.uk** or go to **<https://naturalresources.wales/learning>**

Alternative format; large print or another language, please contact:

**enquiries@naturalresourceswales.gov.uk**

**0300 065 3000**

