

Little terns at Gronant



Little tern teachers' notes

Lesson 1 - Breeding habits of the little tern

Teachers notes and activities for lessons about little tern for years 3 - 6, to be paired with the little tern learning pack workbooks for year 3-4 and year 5-6.

For more information on the little tern learning packs, accessible versions or on site activity packs for school visits, please visit littleterns.denbighshirecountryside.org.uk or call 01824 708313. All learning packs are available for download in PDF format and accessible PDF versions.

Breeding habits of the little tern

Key Stage 2

Years 3 and 4

Years 5 and 6

Lesson subjects in the little tern learning packs are:

1. Breeding 2. Predation 3. Conservation

Lesson duration

40-50 minutes

Areas of Learning and Expertise, Curriculum for Wales

Mathematics and Numeracy, Literacy, Science, Geography

Years 3 and 4	Years 5 and 6
Ratio and graphs	Ratio and graphs
Appreciate nature and the environment	Appreciate nature and the environment
Multiplication	Mean
Literacy and drawing	Literacy and drawing
Fractions and percentages	Fractions and percentages

Objectives

By the end of this activity learners will be able to:

- Analyse data to determine the little tern's breeding life cycle patterns
- Use maths to engage with the little tern breeding life cycle
- Write a poem about and draw a picture of a little tern

Context

The little tern is the smallest tern species you will come across in Britain, about half the size of a common tern. They have a yellow bill with a small black tip and a distinctive chattering voice. The adults only weigh a little over 50g, as much as a golf ball.

Sternula albifrons is the Latin name for the species and it translates as 'white-fronted small tern', an apt description of the forehead pattern and small size of the species in relation to other members of this seabird family.

The little tern arrives back in Britain from West Africa at the end of April to breed on sand or shingle beaches, spits or small inshore islands. The beach at Gronant offers good nesting habitat as it is made up of a perfect mix of shingle and sand.

Video and animation assets

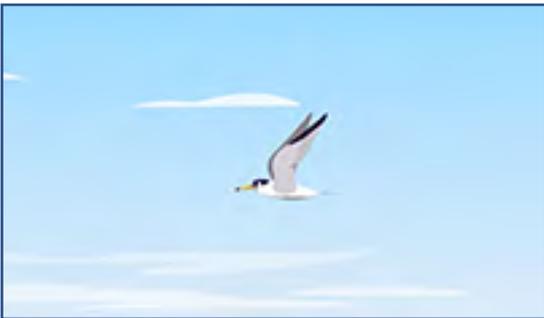
Introduction to the life cycle of the little tern video (5 minutes)

Play this video about the life cycle of the little tern as an introduction to the lesson:



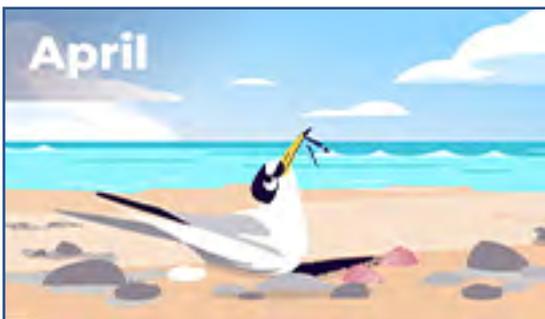
Introduction to the little tern animation (1 minute 23 seconds)

Play this animation as an introduction to the little terns at Gronant.

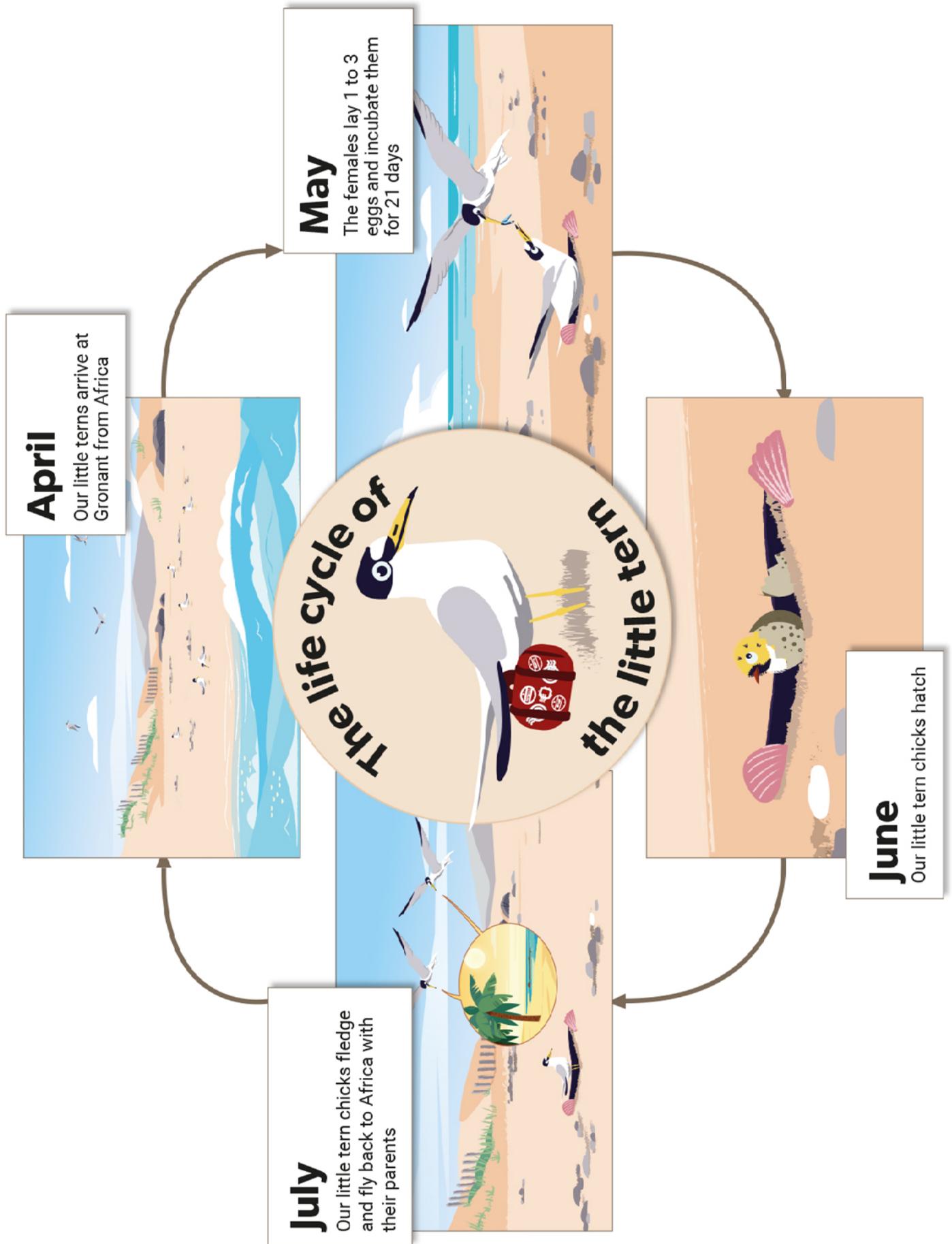


Breeding animation (54 seconds)

Play this animation as an introduction to the breeding habits of the little tern lesson.



Little tern life cycle diagram



Activity 1 - Tern breeding data table

Activity duration (15 minutes)

Mathematics and numeracy

Aims to inform learners about what the breeding numbers of terns are, breeding predation and what environmental elements affect the success of breeding numbers.

Glossary of helpful words

- i. **Pair** A male and female who come together to mate, build a nest and rear their young.
- ii. **Clutch** All the eggs in one nest.
- iii. **Chick** A baby tern covered in downy fur rather than feathers. It can't fly or find food and is dependent on its parents.
- iv. **Fledgling** A young bird that has grown its first coat of feathers and is turning from a chick into a young adult, starting to fly and feed itself.
- v. **Incubation** When parent birds sit on the nest to keep the eggs safe and at the right temperature to develop into chicks. The little terns incubate their eggs for 21 days.

Breeding data table

Display the below data chart on the class whiteboard (see IWB separate resources document)

The number of	2019	2018	2017
Male and female terns (pairs)	162	174	161
Fledglings	206	192	202
Nests	213	295	290
Eggs	527	600	650

Activity 1 - Little tern maths questions

Use the data table above to ask learners the following questions. The answers are in red.

Year 3/4	Answers
1. Add up the number of pairs, in all years, what is the total?	497
2. Add the number of fledglings in 2019 to the number of Nests in 2017	496
3. Subtract the number of eggs laid in 2019 from the eggs laid in 2018?	73
4. Subtract the number of fledglings in 2017 from 2019	4

Year 5/6	Answers
5. What is the mean (number of eggs divided by the total number of nests) clutch size for each year?	2019 2.47
	2018 2.03
	2017 2.24
6. What percentage of eggs laid produced chicks that successfully fledged into young adults?	2019 39.08%
	2018 32%
	2017 31.07%
7. Multiply the number of pairs in 2019 by 2017	26,082

Activity 2 - Bar charts

Give each learner a piece of graph paper and ask them to use the above data table to plot bar charts. Give learners 10 minutes to discuss their work with each other and plot their graphs. Encourage the following skills: teamwork, speaking and listening to other team members.

Activity steps

Ask learners

- To work on the charts in groups of four and discuss their work.
- To record what they are doing to share with the class later.
- To decide on roles for themselves e.g. timekeeper, recorder, speaker.
- To name their teams and give a title to their charts e.g. the little terns, tern charts, terns breeding, top of the tern charts, nests and eggs, the little little terns etc.
- Each member of the team of four plots a bar chart for each category i.e. pairs, eggs, nests, fledglings for each year:
 - vertical axis plots the number of categories - pairs, fledglings etc. and each square is equal to a value of 50 (pairs or fledglings etc.)
 - horizontal axis 3 x 10 mm (2019, 2018, 2017)
- Ask learners to compare their charts and record what they noticed about different years.

Which year is the most successful for breeding?
Why do they think that might be?
What factors might affect successful breeding?

Factors influencing breeding numbers are

Predation - foxes, peregrine falcons, crows etc.

Climate change/environmental - bad weather, storms, rain washing away the nests

Disturbance - people walking dogs, cars, noise, once little terns are disturbed from the nest they often don't go back and will abandon the chick/s. (you can use point 6 to introduce lesson 2 – predation)

- After 10 minutes ask the 'speaker' to present their findings. What name did they choose?

Extension activity - Years 5 and 6

Year 5 and 6 learners can move on to plot line graphs for each data set. i.e. pairs, eggs, nests and fledglings.

Line graph questions

Year 5/6	Answers	
1. In what year were the least number eggs laid?	2019	527 eggs
2. What is the mean number of nests over the three years?	266	
3. What year was the greatest number of fledglings recorded?	2019	206 Fledglings
4. What year is the greatest number of pairs recorded?	2018	174 pairs

Extension activity - Years 4 - 6

Fractions and percentages questions

1. What is 50% of the number of fledglings in each year?	2017	101 fledglings
	2018	96 fledglings
	2019	103 fledglings
2. What is $\frac{2}{3}$ (two thirds) of the number of eggs laid in 2018?	400 eggs	

Activity 2 - Little tern poem

Activity duration 30 - 40 minutes

Literacy - poetry and expressive arts (drawing)

1. Show the class the example acrostic poem, written by James from Ysgol Gronant
2. Show the drawings and photos of terns on the nest on the white board.
3. The poem, drawing and photos of terns on the nest can be found in the IWB resource.

Little terns at Gronant

I like terns

Travel from Africa

Tiny fluffy tern chicks

Love eating sand eels

Eggs in nest

Travel back to Africa

Extremely brave birds

Rough seas destroy nests

Nest on the shingle

Sweeping through the air.

Activity steps

Ask learners

1. To work on their own or in pairs to decide the structure of their work. Questions:
 - One learner might write the poem, while the other could draw a picture or they may work together.
 - Will they follow the same structure as an acrostic poem, like the example poem?
 - Will the poem rhyme?
 - Learners could write a tern Haiku, consisting of just three lines, the first and third lines have five syllables, whereas the second has seven.
 - Will they name their little tern?
 - Is their poem about one tern or a colony?
 - Decide who will read their poem out to the class.
2. Give learners 15-20 minutes to write their poems and draw a picture.
(give a 5 minute reminder)
3. Ask the reader to read their poem to the class while the artist shows their drawing
4. Poems and drawings can be displayed in the classroom and maybe on the new little tern webpage.

RSPB's Wild Challenge

RSPB's Wild Challenge award scheme provides a perfect framework for learning and is open to all ages and abilities. Encourage your pupils to apply their curriculum knowledge outdoors in nature and support them to develop resilience and agency.

RSPB Wild Challenge is an award programme containing 24 activities which can link to your curriculum learning. You can choose the most relevant activities and each one helps children to connect with and learn through nature. There are bronze, silver and gold awards to achieve depending on how many activities you do.

rspb.org.uk/schoolswildchallenge

You can also find a 'Spot it at the point of Ayr' PDF at littleterns.denbighshirecountryside.org.uk, to use on site visits to Gronant, featuring all the birds that you can see there.



yn rhoi
cartref i
fyd natur

giving
nature
a home

Chwiliwch! Adar yn Y Parlwr Du Spot it! Birds at Point of Ayr



Gylfinir
Curlew



Môr-wennol fechan
Little tern



Corhwyaden
Teal



Glas y dorlan
Kingfisher



Pioden y môr
Oystercatcher



Redshank



Pintail



Crëyr bach
Little egret



Corhedydd y waun
Meadow pipit



Hebog tramor
Peregrine



Hwyaden yr eithen
Shelduck

Illustrations by Mike Langman, Chris Shields

Other web resources

Denbighshire Little Tern Project

North Wales Little Tern

North Wales Wildlife Trust

British Trust for Ornithology

Royal Society for the Protection of Birds

Welsh Government Digital Compliance Framework

Welsh Government National Literacy and Numeracy Framework Curriculum for Wales

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Visit our website at
littleterns.denbighshirecountryside.org.uk
to find out more about the little terns at Gronant