

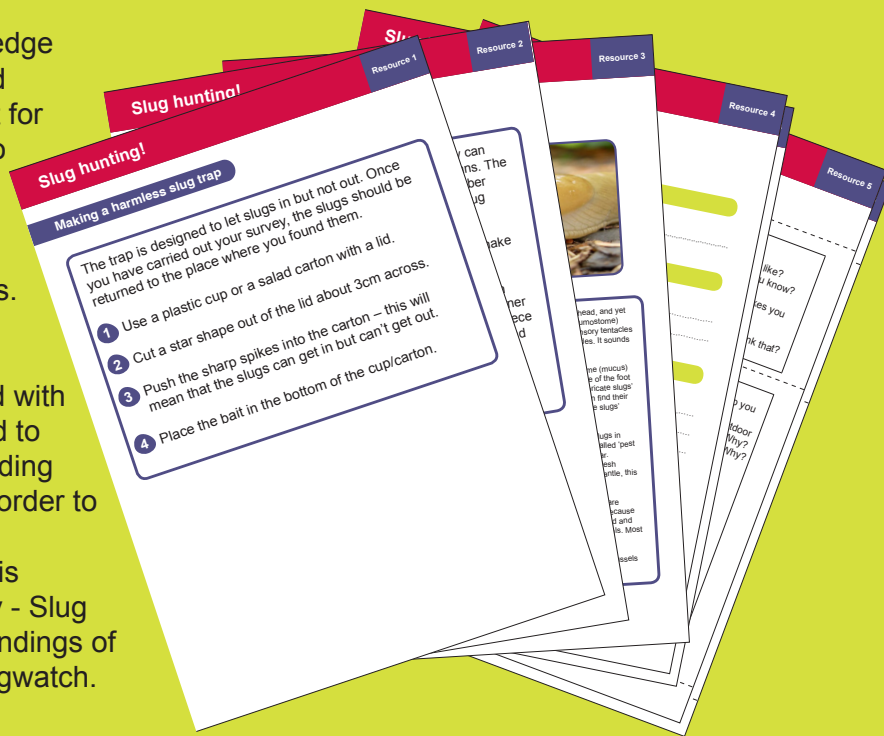
Slug hunting!



Bridgend Outdoor Schools
Ysgolion Awyr agored
Pen-y-Bont ar Ogwr

Slug hunting!

Learners activate their prior knowledge and understanding about slugs and invertebrates in general. They hunt for slugs and then plan an approach to try to find out which areas of the outdoor space contain the most slugs, carry out the enquiry and decide how to present their findings. Their conclusions require scientific justification and possibly further research. Then, they are presented with a paper about slugs, and are asked to plan how they are going to use reading strategies to extract information in order to answer comprehension questions. As the British Science Association is currently carrying out a slug survey - Slug Watch – learners can report their findings of the survey on the website www.slugwatch.co.uk.



Opportunities to develop

LNF

Literacy

Oracy across the curriculum: Developing and presenting information and ideas.

Reading across the curriculum: Locating, selecting and using information, Responding to what has been read.

Numeracy

Developing numerical reasoning: Identify processes and connections, Represent and communicate, Review.

Using data skills: Collect and record data, Present and analyse data, Interpret results.

Curriculum

KS3 Science

Skills - C1, 2, 3; EP2, 4, 5, 6, 7; ED1, 2, 3, 4, 5, 6; ER2, 4

Range - IO4, 5, 7

Resources

Resources included with this activity

- 1 Making a harmless slug trap.
- 2 Care to be taken.
- 3 The wonderful alien slug!
- 4 What have I learned about slugs?
- 5 Suggested questions in sets relating to each task which can be given to each group as they start each task. Conversely these questions can be used by the teacher.

Resources that need to be made available

- 1 Clean plastic cartons with lids, scissors, dog/cat food and/or Ready Brek-like cereal, skimmed milk powder.

Risk assessment

Prior to carrying out outdoor activities, please read [Assessing risk in outdoor spaces](#) (hyperlinked). You will need to follow your own school's health and safety guidelines and subsequently make your own risk assessments that directly relate to the outdoor space that you are going to use. In addition, this activity will require learners to pick up slugs. Learners should wash their hands thoroughly after handling slugs, as they can carry poisonous bacteria. Conversely, learners could wear protective gloves or even use tweezers. Learners should be warned of the danger of eating slugs or their slime, as this can cause illness or even death.

How to run the activity

Preparation

Explain to the learners that they are going to study slugs. They are going to use a known, local outdoor space to find out where slugs prefer to live. Learners will need a basic understanding of the differences between vertebrates and invertebrates as well as knowledge of the outdoor space and therefore a visit to the space could be useful before they attempt this enquiry.

Make up a slug trap (Resource 1), and ask learners to collect clean plastic containers with lids, such as plastic cups and small salad cartons.

Print copies of the five Resources.

Doing the activity

Task 1: What do we know about slugs?

Ask the learners to think about and discuss what they know about slugs. They might talk to a partner before sharing their ideas with the class.

- What is a slug? Why do you think that?
- Where have you seen slugs? What do they look like?
- Where might you find a slug outside? How do you know?
- Why don't some people like slugs?
- Why do you think slugs produce slime? What makes you think that?
- How are snails different to slugs?
- What do you think is inside a slug? Why do you think that?

Task 2: Planning the slug hunt

Explain to the learners that they are going to visit a known, local outdoor space and that they will set harmless traps to collect slugs in order to answer the question 'Where do most slugs live?'. Show learners a trap (instructions in Resource 1) so that they can see the size of one and discuss with them what bait they might use to attract the slugs. The best to use is dog/cat food or something like Ready Brek (mixed with skimmed milk powder, 1:1, and then mixed with water to give a thick paste). You will also need learners to consider the safety information in Resource 2, 'Care to be taken'.

Ask learners to predict the outcomes of their enquiry and to justify their predictions. Then, ask them to plan their enquiry.

- Where do you think most slugs will be found? Why do you think that?
- Why might it be useful to draw a sketch map of the outdoor space? What details would you include in your map? Why?
- Would it be useful to try and draw your map to scale? Why?
- How many traps are you going to put down? Why this number?
- Where are you going to put your traps? Why?
- What is the dependent variable in your enquiry? How do you know?
- What variables might affect your enquiry (independent)? How might each one affect it?
- Which variables do you need to control? How can you control them?
- Which variables can't you control? Why not?
- What do you need to measure? How will you measure these?
- What observations will you make? Why?
- How will you record your measurements and observations? Why do it like this?
- What safety precautions do you need to take? Why do you need to do each of these?

Task 3: Carrying out the slug hunt

Ask learners to make their slug traps, using Resource 1. Different groups will have decided on different numbers of traps depending on their chosen method. Then, they can place these traps in the outdoor space. Another variable is the length of time the traps are left, mainly this will depend on the learners' choice but timetable constraints may impact on this as might the weather. There will be more slugs caught in a shorter space of time if you carry out this enquiry in damp or wet weather conditions. However, there will be a greater difference in the number of slugs caught in the different areas of the outdoor space in drier weather!

Task 4: Monitoring the slug hunt

As learners carry out their enquiry, they may change their plan in order to gain better outcomes. In addition, they need to consider how they could have improved their plan once they have their findings.

- How well did you follow your plan?
- If you changed your plan, how did you change it? Why did you change it?
- Looking back on what you did, would you have done anything differently? Why? How would that have improved your findings?

Task 5: Considering findings of the slug hunt

Once learners have their findings, they need to consider how best to present them. Ask each group to present their findings by using a maximum of three tables/charts or graphs and a justified conclusion.

- How can you describe what you have found out? Why do it like this?
- How will you present your findings? Are these the best ways? Why?
- You can only use a maximum of three ways to present them. Which three will you use? Why choose these?
- What is your conclusion? Why do you think this?
- How sure are you of your conclusion? What other information do you need to be more confident of your conclusion? How would this help you?

Task 6: Reading the paper about slugs

Ask learners to read the paper about slugs from a paper (Resource 3) using reading strategies and to use the information to answer questions. Initially, they need to think about how they are going to approach their reading:

- What reading strategies do you use when reading a piece of extended writing?
- Why do you use these? Which work the best? Why?
- Which strategies will you use for this text? Why have you chosen these?
- Before reading, what clues on the paper tell you what the text is about? How do they tell you?
- How does this help you when you read the text?

Allow sufficient time for learners to read the paper again before giving them the Learner sheet (Resource 4). Then, give them about ten minutes to complete the sheet. Remind them to answer in full sentences. Most learners will be able to do this comprehension exercise without the paper about slugs in front of them, it is then a test of how well they can memorise information. However, others will need to look for the answers in the paper. You could use their responses as a reading assessment.

Responses to Question 7, 'What other things do you want to find out about slugs?', could lead to further research on the internet. Learners could then be asked to present a fact sheet on slugs for assessment of their writing skills and/or display purposes.

Assessment against the LNF

Many aspects and elements could be demonstrated by learners as they carry out this activity. The main focus areas of the activity within the LNF are shown as shaded boxes in the tables below.

Literacy		
Strand	Element	Aspect
Oracy across the curriculum	Developing and presenting information and ideas	Speaking
		Listening
		Collaboration and discussion
Reading across the curriculum	Locating, selecting and using information	Reading strategies
	Responding to what has been read	Comprehension
		Response and analysis
Writing across the curriculum	Organising ideas and information	Meaning, purposes, readers
		Structure and organisation
	Writing accurately	Language
		Grammar; Punctuation; Spelling; Handwriting

Numeracy	
Strand	Element
Developing numerical reasoning	Identify processes and connections
	Represent and communicate
	Review
Using number skills	Use number facts and relationships
	Fractions, decimals, percentages and ratio
	Calculate using mental and written methods
	Estimate and check
	Manage money
Using measuring skills	Length, weight/mass, capacity
	Time
	Temperature
	Area and volume; Angle and position
Using data skills	Collect and record data; Present and analyse data; Interpret results