SELF-GUIDED EDUCATIONAL ACTIVITY PACK:

MINI-BEASTS

The Rare Breeds Centre is run by Canterbury Oast Trust, a charity supporting adults with learning difficulties.

When you get home, why not find out more at **rarebreeds.org.uk**

Introduction

This pack is designed to be an educational resource to support teachers of Key stage 1 students in outdoor activities when visiting the Rare Breeds Centre (RBC) although the activities could be easily adapted to suit older or younger children.

Here at the Rare Breeds Centre we are fortunate to have a variety of habitats on site such as ponds, ancient woodland, hedgerows and wildflower meadows. We believe these provide a great opportunity to teach students about the outdoor environment through nature-based activities.

While we offer pre-booked RBC led educational activity sessions*, this pack suggests self guided activities for schools and groups. All activities mentioned have links to the National Curriculum, provide details of any resources required and recommended location within the Rare Breeds Centre for the activity. A copy of our Schools and Groups Risk Assessment is available on our website.

Activities such as those suggested in this pack provide an opportunity for children to explore the natural environment which is home to a variety of wildlife. This pack focuses on providing an introduction to invertebrates and their habitats.

*Small fee applies

Things to remember...

- Please be fully equipped for a visit to the RBC. Check out our FAQs online.
- Ensure that sturdy footwear and weather appropriate clothing is worn.
- Bring any activity specific equipment you may need. (By prior arrangement some equipment is available to hire from RBC.*)
- Activities take place in the natural environment please respect this by leaving the area as you found it.
- Rare Breeds Centre map (Downloadable at http://www.rarebreeds.org.uk/online-resources)
- You can always use a pre-booked trailer ride as transport to the top of the farm.

* Small fee applies

The Rare Breeds Centre is a registered farm member of FACE (Farming and Countryside Education). This pack has been developed by staff trained under CEVAS (Countryside Educational Visits Access Scheme). Some of the worksheets provided at the back of the pack have been adapted from a variety of sources in particular Woodland Trust Nature Detectives and Opal explore nature packs.

Activity 1: What lives in the garden?

Curriculum links	Science, Geography, Maths and English
Equipment	Worksheet, pencils and clipboards.
Suggested location	Wildlife Garden and Discovery Garden
Time of Year	All year

Pre visit: Introduce the concept that there are a variety of insects in the natural environment (e.g. beetles, butterflies, ants, flies). Where would they expect to find different insects in a garden?

On the day: Ask the children to spend 10 minutes walking round the garden looking for insects or evidence of insects such as holes in leaves. Tell them to remember what they see and where it is.

On the worksheet ask the children to draw a basic picture of the garden with pictures of the insects they see while walking the garden.

Post visit: Discuss what insects were found. Take the children on a search of the school grounds or ask them to look in their gardens at home for insects. How many different insects did they find? Which ones were the same?

Activity 2: Worm charming

Curriculum links	Science, Geography, English and Maths
Equipment	Worksheet, pencils, clipboards, tray and hula hoop.
Suggested location	Main paddock
Time of Year	All year

Pre visit: Introduce the concept that there are a variety of insects living in different habitats (e.g. above and below ground). Discuss what the children already know about worms. Worms live within the soil and are detritivores, this means they eat dead matter; a worm eats and digests up to half its body weight in waste every day.

On the day: It is thought that vibrations cause worms to head to the surface of the ground. This is because when moles dig it causes vibrations which the worms pick up and they then head to the surface to avoid predation. Split the children into small groups of 4-5 and assign each group their own plot (perhaps using a hula hoop). Encourage the children to begin charming the worms out of the ground by making vibrations. How many techniques can they find to charm the worms? - some are suggested in the worksheet - do not dig, pour water or washing up liquid. Carefully collect the worms which have fully emerged and place in a tray. Then use the worksheet to identify how many of each species of worm they have found. Which method of charming worked the best? Remember to put the worms back in a dark place and ensure everyone washes their hands after the activity.

Post visit: Extend this activity by looking in other habitats, worms like damp, dark places around the school grounds or introduce the idea of food chains using the worm as an example.

Activity 3: Ant lines

Curriculum links	Science, Geography, English and Physical Education
Equipment	Large sausage shaped balloon to resemble a caterpillar
Suggested location	Tinkers Wood, can be incorporated into a woodland walk
Time of Year	All year

Pre visit: Introduce the concept that ants are social insects and live in a colony and that they must work together in order to take food back to the colony.

On the day: Arrange the children into pairs. Choose a pair to lead and then organise the other pairs in a line behind. The leading pair moves through the woodland and the other pairs follow. The leading pair works together to pass the 'caterpillar' to the next pair, but they must only use their foreheads! The leaders then run to the back of the line and the process continues until the 'caterpillar' reaches the 'nest' (decide on the 'nest' location at the beginning of the activity).

Explain to the children that the ants must work together to carry their food back to the nest especially when the food is much larger than the ants. Ants can carry food much heavier than their body weight, this is equivalent to humans carrying a bus.

Post visit: Explain that a single ant is very strong and able to lift items 25X its own body weight but ants must work together to move large bulky items. Take a walk in the school grounds to look for ant colonies.

Activity 4: Butterfly lifecycle

Curriculum links	Science, Geography and Art
Equipment	Worksheet, pencils, clipboards
Suggested location	Butterfly Tunnel
Time of Year	May—September

Pre visit: Read the book 'The Very Hungry Caterpillar' by Eric Carle to the class. Use the story to introduce the concept of lifecycles. Discuss the difference between each life stage that the process is known as metamorphosis which means change.

On the day: Let the children explore the butterfly tunnel in search of each stage of the butterfly lifecycle (egg, caterpillar, pupa, and adult). Please ensure that the children DO NOT TOUCH the butterflies or flowers in their search. Using the worksheet, encourage the children to draw each stage of the lifecycle in the correct box as they spot it in the tunnel.

Post visit: Recap the lifecycle of a butterfly and either using pictures or searching the school grounds for butterflies, discuss that there are many species of butterflies which look different and that as caterpillars they eat different plants.

Activity 5: Waggle dance

Curriculum links	Science, English and Physical Education
Equipment	Flower sign
Suggested location	Rainbow Wood alternatively in an area to where you can hide the flower and room for the children to run around.
Time of Year	All year

Pre visit: Introduce the concept that bees collect nectar and pollen from flowers and take them back to their nest to feed their young and also to make honey to be stored for winter. Tell the children that when a scout bee finds a flower with lots of nectar and pollen they go back to the hive and tell the other bees where to find the nectar. The honey bee tells them where to look by doing the waggle dance.

On the day: This game is best performed in small groups. Before beginning place the flower sign in the vicinity of the 'hive tree' (nominate a particular tree as the hive).

Each group must start in the hive. Choose one child to be the scout bee while the other children are worker bees. The worker bees must close their eyes while the scout bee must go out in search of nectar (searching for flower sign). When the scout finds the flower they must pretend to take some nectar from the flower and return to the hive. When the scout returns to the hive the worker bees open their eyes and the scout bee must tell the workers where the flower is without talking but by performing the waggle dance and wiggling their bottom in the direction of the nectar source. The worker bees then must 'fly' out in search of the flower following the direction indicated by the waggle dance. When they find the flower the workers must all pretend to take a 'sip' of nectar and return with their nectar to the hive.

Take it in turns for each child to be the scout bee.

Post visit: Discuss how easy or difficult it was to find the flowers using only the waggle dance as communication. Reinforce the idea that the bees work as a team and communication (by means of the waggle dance) is vital for them to find enough food for the hive.

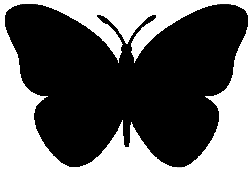
What lives in the garden?

Draw the garden and add on the insects you saw, here are a few pictures to get you started!

Snail

Beetle

Spider



Butterfly

Worm charming

How many worms can you charm? Use the techniques below and see what other methods work. Then use the chart to see which worms you have charmed.

Techniques to charm	How many worms?
Lie on the ground and sing	
Jump on the spot	
Do a wiggly dance	
Hop about	
Push a twig into the ground and then ping it	

Worksheet Amended from Woodland Trust nature detectives and Opal explore nature sheets.

What earthworms have you found?

Start here

Sort your earthworms into two piles, those **with saddles** and those **without saddles**

The saddle is usually a different colour to the rest of the body, and slightly wider.

With a saddle

Mature earthworms

How many did you find?.....

Keep going!

No saddle

Immature earthworms

How many did you find?.....

Watch the earthworms moving - are any of them **stripy**?

Look for dark red bands with a narrow pale band in between.

YES → **Stripy earthworms**

How many did you find?.....

NO

Are any of the earthworms **green** coloured?

(Dark green, yellow-green or muddy green).

YES → **Green worms**

How many did you find?.....

NO

Is the head to the saddle all **dark** coloured?

(Dark red, purple-red or brown).

YES → **Red earthworms**

How many did you find?.....

NO

Is the head to the saddle a **pale** colour?

(White, pink or grey). It may have some darker or red segments.

YES → **Pale earthworms**

How many did you find?.....

OPAL EXPLORE NATURE

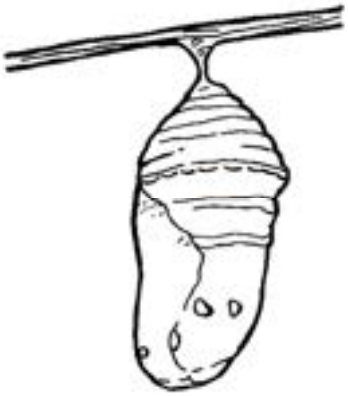
Woodland Trust nature detectives

Butterfly lifecycle

Search the butterfly tunnel and draw each stage of the butterfly lifecycle that you can see. Remember not to touch anything!

Butterfly

Egg



Pupa

Caterpillar