

A Kids' Guide

to exploring

Minibeasts





BirdLife Malta

Established in 1962, BirdLife Malta is the oldest environmental organisation in Malta, committed to the protection of wild birds and their habitats. A non-governmental organisation (NGO), BirdLife Malta is also part of the BirdLife International network working towards conserving global biodiversity and the sustainability of natural resources.

Teach, Inspire and Protect (TIP)

TIP is an Erasmus+ funded project led by BirdLife Malta focusing on early years education. Early childhood education plays a vital role in the development of values and skills, being the best age group to instil care and love for nature.

Young children also require a different approach to learning which is exploratory, sensory and interactive. Nature around us provides the ideal setting for this.

Erasmus +

Erasmus+ is the EU's programme to support education, training, youth and sport in Europe. As an integrated programme, Erasmus+ offers more opportunities for the mobility of learners and staff, and cooperation across the education, training and youth sectors.

In this booklet...

You will find information and **lots of activities** to help you learn more about the minibeasts around you and how you can help them. Learn how to create **bug hotels**, your own **magnifying glass** and many other **fun minibeast activities!**

NATURE **IS AMAZING**

Nature is the wonderful creatures and beautiful flowers. Nature is the trees that give us shade, the sea that never rests, and the rain that brings new life. And it's waiting for you and your family to explore it!

WHAT ARE **MINIBEASTS?**

We call animals that don't have a backbone **INVERTEBRATES**. But that's a long word. A much nicer word we can use is **MINIBEASTS!**

Some minibeasts have soft bodies, like worms, slugs and jellyfish.

Other minibeasts have a hard skin called an **EXOSKELETON**. This protects them from damage, like a knight wearing armour! Most insects, arachnids and crustaceans have an exoskeleton.

WHY ARE MINIBEASTS **IMPORTANT?**

Minibeasts have several functions:

PROVIDERS - food for other animals

POLLINATORS - help plants to grow fruit and seeds

DECOMPOSERS - eat dead organisms to release nutrients for plants

PEST CONTROLLERS - feed on pests

SOIL ENGINEERS - They make tunnels in the soil and help keep water and add nutrients to soil



How to be a good minibeast explorer



1 A magnifying glass or eye loupe can help you look at minibeasts in more detail. Use the ID sheets on pages 7 - 10 to help you identify them.

2 Some minibeasts like dark and damp places. Look under stones and dead wood to see if you can spot any. Others like to be near flowers and leaves so don't forget to explore them too!

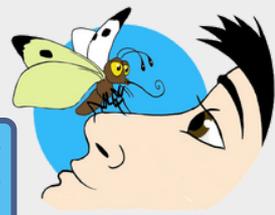
3 Don't try to pick the minibeasts up. They are very fragile as they don't have a skeleton like we do. If you want a closer look try slipping a leaf or paper under them to gently move them closer to you.

4 The best time to go minibeast exploring is just after it rains. Lots of minibeasts like damp places and where you see flowers look for pollinators (bees, butterflies and beetles) when it's sunny!

5 Most importantly: don't harm them, be gentle, put any overturned stones or logs back the way you found them.



Many kinds of Minibeasts



There are lots of minibeasts and sometimes it's hard to remember them. Here's a list of minibeast families to help you understand better this mini big world!

ARTHROPODS

Animals with an exoskeleton. There are more than a million types! The biggest groups are insects, arachnids, myriapods and crustaceans.



INSECTS: bees, butterflies, ants, dragonflies.

They are divided into three body parts, have three pairs of legs and one pair of antennae. 75% of all animals are insects!



ARACHNIDS: spiders, scorpions.

They have two body parts, four pairs of legs, and no antennae.



MYRIAPODS: centipedes, millipedes.

They have two body parts, many legs, and one pair of antennae



CRUSTACEANS: woodlice, crabs.

They have a segmented body with one pair of legs in every segment and two pairs of antennae.



ANNELIDS

They have segmented bodies with no legs or hard skeletons.



CLITELLATAS: earthworms.



MOLLUSCS

Their body is divided into four parts, and their head has tentacles.

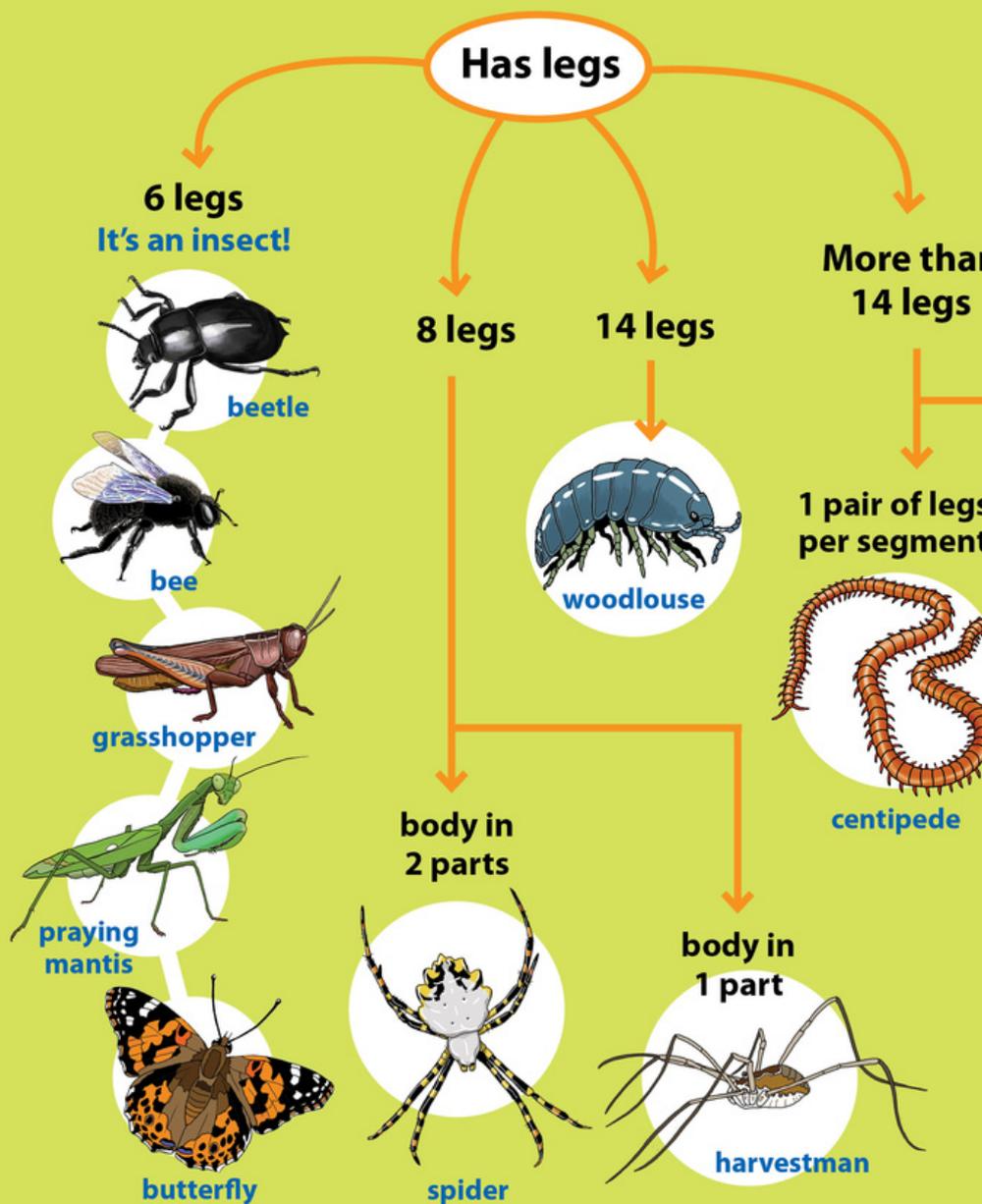


GASTROPODS: slugs and snails.

Snails have a shell but slugs do not and no legs.



What's that minibeast?



st?

Here's a **fun** way to help us **identify** minibeasts.



No legs

Has a shell

No shell



snail

2 pairs of legs per segment



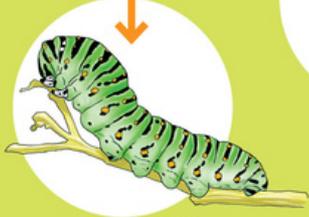
millipede

Has segments

No segments



earthworm



larva (of an insect)



slug

Handwritten signature

Insects and



Honey-bee

Nahla tal-Ghasel



Violet Drowning

Vjolett



Hummingbird moth

Habbara



Painted Lady

Farfett tax-Xewk



Striped Shield Bug

Spallut Irrigat



Seven-spot Ladybird

Nannakola tas-Seba' Tikek



Broad Scarlet

Skarlat



Churchyard Beetle

#anfusa tal-Kantini



Black Harvester Ant

#azzien Iswed



Habitat



Flowers



Fresh Water



Plants



Leaf Litter



Dead wood



Soil



Damp place

where to find them!



Large Carpenter Bee
Bomblu Issued



Crimson Speckled Moth
Sbejha



Egyptian Grasshopper
Ġurat tar-Raba'



Paper Wasp
Żunzana tax-Xehda



European Mantis
Debba tax-Xitan



Swallowtail Butterfly
Farfett tal-Fejġel



Buff-tailed Bumblebee
Bomblu



Blue Emperor
Mazzarell Sultan



Spurge Hawkmoth
Baħrija tat-Tengħud



Function

- Pollinator
- Provider
- Pest control
- Decomposers

Season

- Spring
- Summer
- Autumn
- All Year

Minibeasts and



Maltese Woodlouse
Ħanżir l-Art ta' Malta



Garden Snail
Għakrux Raġel



Slug
Buġharwien



House Centipede
Xini



Common Millipede
Ħanex tal-Indewwa



Banded Argiope
Brimba Rrigata



Jumping Spider
Brimba Qabbieža



Scorpion
Skorpjun



Earthworm
Ħanex



Habitat



Flowers



Fresh Water



Plants



Under stones



Leaf Litter



Dead wood



Soil



Damp place

where to find them!



Lobed Argiope

Brimba Kbira tal-Widien



Freshwater Crab

Qabru



Humped Crab Spider

Brimba Hotbija



Decollate Snail

Trajbu



Soil Centipede

Xini tal-Hamrija



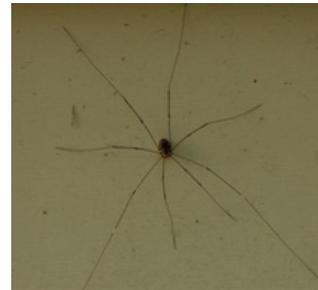
Pill Millipede

Žibga tal-Indewwa



Red-banded snail

Għakrux Mara



Harvestman

Busaqajn



Common Woodlouse

Hanżir l-Art Komuni



Function

Soil engineers Provider Pest control Decomposers

Season

Spring Summer Autumn Winter All Year **10**

Make your own magnifying glass

Materials needed:

- A glass jar (with lid)
- Water
- Washing up liquid



1 Remove the label from your jar, using a little washing up liquid. The smoother the better!

2

Fill the jar with water all the way to the top. Screw on the lid tight.

3

Look at your minibeast through the jar - the water will make it look bigger!

4

This can also be done with a small disc shape cut out of a clear plastic bottle and a small amount of water. Put the water in the disk to create a magnifying glass.



Or buy a loupe. An 8x magnification should do great.

Building a bug hotel



Materials needed:

- Wooden pallets
- Bricks or stones
- Filling material - dead wood and sticks, dry leaves, vegetation
- Roof tiles, flat stones or planks of wood

1 Place a wooden pallet on level ground and place bricks on top of it, in a H-shape.

2 Then place your next pallet on top and put more bricks. Continue adding pallets until your bug hotel reaches the height you want (no more than 1 metre)

3 Fill your gaps with different natural materials (grass, twigs, dry leaves), you can provide lots of habitats for minibeasts.

4 Many of your minibeast friends will hide in the hotel to shelter from the rain, so it's a good idea to add a waterproof roof to stop rain from seeping in. You can do this by adding roof tiles, planks of wood or flat stones to the top of the structure.

Experiment! Bug hotels can be made in many different shapes and styles. They even attract sunbathing reptiles!



Build a mini pond

1 Dig a hole deep enough to hold your container. Don't worry if you don't have any soil you can just use your bucket as a pond!

2 Remove any sharp rocks from your hole. Line the bottom with sand.

3 Sit your container in the hole and fill any gaps with soil. Pile rocks and bricks around the outside of your hole, covering up any signs of your container.

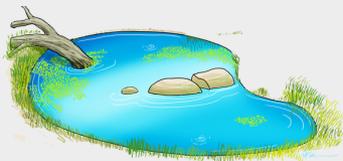
4 If you don't have soil, place your container in a sheltered area. Buy plants and stones to cover your container and make it pretty!

5 Scatter the bottom of your container with rocks and pebbles to have hiding places for all the new minibeasts that will make it a home! Add some native water plants to have places for other creatures (for example, baby dragonflies) to hide in.

6 Fill your container up with rainwater. If you don't have any rainwater leave the bucket out over winter before adding plants! Do not use bottled or filtered water. If you are using tap water let it stand for a few days in a bucket until the chlorine evaporates.

Materials needed:

- An old basin or other watertight container
- Spade
- Sand
- Old bricks, rocks and pebbles



Adding stones around your pond is another great minibeast habitat. Don't forget to add sticks to help land creatures get out if they fall in!

The Waggle Dance!

Did you know honey bees do a figure-of-eight dance when they find a good source of food (nectar)? This is to let other bees in their hive know where to find it. This dance is known as the Waggle Dance. Here is how you can do your own Waggle Dance!

1 Find your favourite flower. Bees waggle towards the flower so stand in a spot away from your flower. Facing the direction of your flower, move and waggle your body towards it.

2 Move 5 steps, turn right and loop back around to your starting point and do your waggle dance again.

3 After 5 more steps, turn left and loop back around to your starting point. This will show your fellow "bees" where the pollen is.

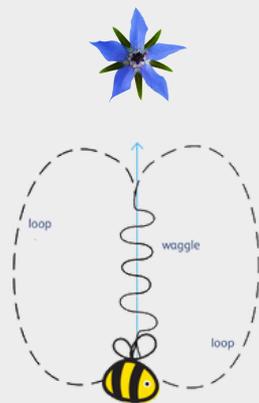
4 Now you know the Waggle Dance, do it in front of your friends and family whenever you see your favourite flower!

5 Bees are more attracted to yellow, blue and purple flowers. Change the number of dances you do depending on the colour of your flower!

Yellow: Do 2 waggle dances

Blue: Do 3 waggle dances

Purple: Do 4 waggle dances



Plant native pollinator-friendly flowers to attract bees, butterflies and beetles to your outdoor space.

We hope you enjoyed our Kids' Guide to Exploring Minibeasts.

We would love to hear from you!

Contact us on education@birdlifemalta.org or follow us on
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