Activity—We’re going on a bug hunt!

Teaching Instructions:

The Bug Hunt

1. Select an area to visit—maybe the school grounds or an area in a local park.
2. Put students into pairs or small groups and equip them with:
   a. Invertebrate Spotting Sheet
   b. Invertebrate Classification Key
   c. Invertebrate Summary Cards
   d. Plastic spoons and clear bug pots or clear tupperware (optional)
3. Instruct students to move slowly through the area, searching for invertebrates. The best places to check would be under stones and logs, in the cracks of trees and at the base of long grass!
4. If they need to get a closer look at an animal to work out what it is, they can use the spoons to gently pick it up and place it into the bug pot or tupperware so that they can use the Classification Key to identify it.
   Make sure they put the animal back where they found it!
5. EXTRA TIP — lay a white sheet or pillowcase under a bush or tree and shake the branches to see what falls out!
6. Groups should record each species they find on their Invertebrate Spotting Sheet, including how many they found and what microhabitat it was in.

The Discussion

1. Run through which animals were found and where they were found.
2. Discuss why different animals were found in different microhabitats—butterflies eat the nectar of flowers, woodlice like damp, dark places etc.
3. MATHS EXTRA: Get pupils to fill in the provided worksheet exploring their findings.

Extension

1. Consider repeating the Bug Hunt on in a different type or area and comparing the invertebrates found—e.g. woodland vs. field.
<table>
<thead>
<tr>
<th>What we saw (species)</th>
<th>Where we saw it (microhabitat)</th>
<th>How many we saw (abundance)</th>
<th>What it looked like (description/drawing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ladybird</td>
<td>On a bush</td>
<td>4</td>
<td>Red body with black spots, 6 legs.</td>
</tr>
</tbody>
</table>

**Invertebrate Spotting Sheet**

Names:  
Date:  
Class:  
Location:  

**KS2**

*Let's Work for Wildlife*
<table>
<thead>
<tr>
<th>What we saw (species)</th>
<th>Where we saw it (microhabitat)</th>
<th>How many we saw (abundance)</th>
<th>Type of invertebrate (classification)</th>
<th>What it looked like (description/drawing)</th>
</tr>
</thead>
<tbody>
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</table>
We’re going on a bug hunt! - Maths

1. By adding counting the number of different species seen from each invertebrate group, complete column A in the below table:

<table>
<thead>
<tr>
<th>Invertebrate Group</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molluscs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arachnids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustaceans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myriapods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

2. Use the following equation to work out what percentage of the total number of species seen belonged to each group and fill in column B.

\[
\text{Percentage of total number of species} = \left( \frac{\text{Number of species seen from the group (A)}}{\text{Total number of species found}} \right) \times 100
\]

3. Use the percentages to fill in the pie chart showing the percentage of different invertebrate groups in your study area.

4. This pie chart shows the percentage of different invertebrate groups found across the world. Why might this be different from your pie chart?

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Invertebrate summary cards

**Mollusc**
- Snails: Soft, slimy body and hard coiled shell
- Slugs: Soft, slimy body but does not have a hard coiled shell

**Arachnid**
- Harvestmen: Body divided into two parts—head & abdomen
- Long thin legs
- One body part—round or oval

**Worms**
- Earthworm: Long thin body divided into segments

**Crustacean**
- Woodlice: Body divided into many segments, 7 pairs of legs, oval body, can roll into a ball

**Myriapods**
- Centipede: Long thin body divided into segments, at least 15 pairs of legs
- Millipede: Long thin body with 2 pairs of legs on each segment

**Insect larvae**
- Most insects reproduce by laying eggs. The young that hatch from these eggs are either larvae (looks different from adults) or nymphs (smaller versions of the adult)
- Butterfly & Moth
- Beetle larva
- True fly larva (maggot)
Insects

**Bees, wasps and ants**
- Long antennae
- See-through wings
- Most have narrow waist
- Ants usually do not have wings
- Bees are often hairy, whereas wasps and ants are not hairy.

**Butterflies and moths**
- Long antennae
- Two wings on each side, usually colorful
- Butterfly—usually flies during the day, rests with their wings closed
- Moth—usually fly at night, feathery antennae, rest with wings open

**Beetles**
- Pincer-shaped
- Wing cases meet in a straight line to make a T shape
- Hard forewing cases to protect wings

**True bugs**
- Wings usually meet in an X- or Y-shape
- Not true for aphids

**True flies**
- Short antennae
- Large eyes
- One pair of see-through wings

**Cricket, grasshoppers, earwigs**
- Crickets have long antennae
- Grasshoppers have short antennae
- Earwigs have a pair of pincer-shaped clasps