

# Lesson 1 Looking Closely

## Objectives

By the end of this lesson, students will be able to:

- Name some small animals.
- Describe the key features of some small animals.
- Identify which small animals are insects.

## Overview

This lesson is about helping students to understand the wide variety of small animals that are all around us and to notice their similarities and differences. Students use hand lenses to look closely at their key features, and learn to identify which small animals are insects.

## Stimulus Activity

The stimulus activity shows Tom and Mary looking closely at a butterfly. They find out that by using a hand lens they

can see how beautiful the butterfly's wings are. This emphasizes the need for careful observation. Encourage students to share some of their experiences about butterflies or other small animals that they have seen, and perhaps give descriptions about their features.

## Activity 1

In this activity, students match pictures of common small animals to where they might be found. There are suggestions for the answers. Other answers are possible. Students might say that they have also seen ladybirds on a tree, for example. Encourage such responses where students have first-hand experience.



### Activity 1

Where can you see these small animals? Draw lines.



15

# Lesson 1

## Activity 2

In this activity, students complete a table for a range of small animals, indicating whether or not they have legs or wings and how they move. If possible, bring some insects, worms, snails, etc. into class, or alternatively use images from the attached CD-ROM 1 or Internet. Work through the answers with students to make sure they understand what they need to do. As students begin completing the table, encourage them to talk together and share their ideas and experiences about the small animals they have seen. Be ready to intervene in the discussions and help students to explain their ideas, particularly if there are disagreements.

The snail is interesting because it does not have legs, but the large, flat area of its body outside the shell is called its “foot”. It moves by “crawling” along the slime that it produces. This slime protects the snail from injury, and because it is sticky it also helps the snail to crawl up surfaces, acting as a kind of glue. The slime left behind by the snail can sometimes be seen in the form of a long silver track on paths or rocks. Note also that some ants do have wings. As part of the reproductive cycle of some ant species, winged ants are produced. Winged males mate with winged females, and the females go on to become “queens” (losing their wings in the process). Worms do not have legs, but they are covered in tiny hairs (called “setae”) that help them pull and push themselves along.

### Unit 2 Lesson 1

## Activity 2

Do these small animals have legs or wings? How do they move? Write the numbers.



I have legs.	2, 3, 4, 6, 7, 8
I have wings.	3, 6, 7, 8
I walk.	2, 3, 4, 6, 7, 8
I fly.	3, 6, 7, 8
I crawl (爬).	1, 5





Some ante (蚂蚁)  
have wings. They  
can fly!



## Activity 3

How many legs do these small animals have? Write the numbers.



snail

0



spider

8



bee

6



ladybird

6



ant

6



butterfly

6

Animals with six legs are called "insects". Circle them.

## Activity 3

In this activity, students observe more closely the small animals they are familiar with and begin using the number of legs as a way of classifying them. Students count the number of legs of each small animal shown in the pictures, and record these on the lines. Encourage students to count in English.

Small animals with six legs are classified as "insects". Ask students to practise saying the sentence: "(Bees/Ladybirds/Ants) have six legs. They are insects."

This activity can be extended for high-achieving students by asking them to note the body structure common to insects. In addition to having six legs, all insects have three main parts of the body: the head, the middle section called the "thorax", and a larger section at the end called the "abdomen". (The ladybird may be a challenge here, as the thorax is relatively difficult to see.)

# Lesson 1

## Now I Know ...

小动物有许多不同的种类。  
昆虫有六条腿。

## How I Know ...

Students observe images of small animals, and some real ones if possible. Observing and describing are the main activities to support learning in this lesson.

## Let's Practise!

During this lesson, you might have noticed students talking about other small animals. This is an opportunity for students to talk more about other small animals such as flies, wasps and beetles, and to draw pictures of them. Encourage students to talk about where they can see these animals. Ask students which small animals they like, and which they do not. Students might think that some small animals such as butterflies and ladybirds are appealing because of their colourful appearance. High-achieving students might respond that insects such as honeybees and silkworms are useful to human beings, in the production of honey and silk. On the other hand, small animals like flies and mosquitoes spread disease.

### Unit 2 Lesson 1

## Now I Know ...

There are many kinds of small animals.  
Insects have six legs.

## How I Know ...

- ☒ I looked for (寻找) small animals.
- ☒ I observed them with a hand lens (放大镜).
- ☒ I counted their legs.



## Let's Practise!

Do you know some small animals? Where can you see them?  
Draw a picture.





# 第一课 仔细地观察

## 教学目标

通过本课的学习，学生将能够：

- 说出一些小动物的名称。
- 描述一些小动物的主要特征。
- 识别哪些小动物是昆虫。

## 概述

本课旨在帮助学生理解我们身边小动物的多样性，并认识到它们的相同点与不同点。学生将使用放大镜仔细地观察小动物的主要特征，并且学习识别哪些小动物是昆虫。

## 导入活动

在导入活动的卡通图片中，汤姆和玛丽正在使用放大镜仔细地观察一只蝴蝶。他们发现放大镜能够帮助他们看清楚蝴蝶漂亮的翅膀，这强调了仔细观察的重要性。鼓励学生分享他们看到蝴蝶或其他小动物的经历，并可尝试描述小动物的特征。

## 活动一

在本活动中，学生将把一些常见的小动物和它们可能出现的地方匹配起来。所给答案仅供参考。如若有其他答案，合理即可。比如，学生可能会说他们在树上也看到过瓢虫。鼓励学生分享他们的亲身经历。

## 活动二

在本活动中，学生将完成一张有关几种小动物的表格，指出它们是否有腿或者翅膀，以及它们是如何运动的。如果条件允许，教师可以将昆虫、蚯蚓、蜗牛等小动物带到课堂，也可以借助本书附带的 **CD-ROM 1** 中的图片或者网上的图片，和学生共同完成表格以确保他们知道该做什么。当学生开始填写表格的时候，鼓励他们一起讨论并且分享对所见过的小动物的想法和经历。教师准备随时参与讨论并帮助学生阐释他们的想法，特别是在出现分歧的时候。

蜗牛很有趣，因为它没有腿，但是它壳外宽大扁平的部分被称为“足”。它沿着自

已分泌的黏液“爬行”。这种黏液不仅可以使蜗牛免于受伤，还可以像胶水一样帮助它粘在物体表面向上爬行。有时我们可以在小路或石块上看到蜗牛留下长长的银色黏液的痕迹。还需要注意的是，有些蚂蚁的确是有翅膀的。在繁殖周期的某个阶段，有些种类的蚂蚁会繁衍出长翅膀的个体。有翅雄性蚂蚁与有翅雌性蚂蚁交配，然后有翅雌性蚂蚁成为“蚁后”（在这一过程中翅膀脱落）。蚯蚓没有腿，但是它们身体底部覆盖的细小绒毛（学名为“刚毛”）能够帮助它们运动。

### 活动三

在本活动中，学生需更仔细地观察他们所熟悉的小动物，并根据腿的数目对它们进行分类。学生数出每张图片中小动物的腿的数目并记录在横线上。教师应鼓励学生用英语数数。

六条腿的小动物属于“昆虫”类。请学生练习说出下列句子：“(Bees/Ladybirds/Ants) have six legs. They are insects.”

作为拓展，教师可以让表现突出的学生注意昆虫普遍具有的身体结构。除了有六条腿之外，所有昆虫的身体都有三个主要的部分：头部、位于中间的胸部以及位于后面较大的腹部。（瓢虫的胸部很难看到，所以对学生来说观察起来会有些困难。）

### 现在我知道……

小动物有许多不同的种类。

昆虫有六条腿。

### 我是如何知道的……

学生观察了小动物的图片，可能还会看到一些真实的小动物。观察和描述是贯穿本课学习的主要活动。

☒ 我寻找了小动物。

☒ 我用放大镜观察了它们。

☒ 我数了它们的腿的数量。

### 让我们练习吧！

在本课的学习过程中，教师可能会发现学生谈论到其他小动物。这里提供了一个让他们谈论更多的小动物（如苍蝇、黄蜂和甲虫）并把它们画出来的机会。鼓励学生讨

论他们可以在哪里看到这些小动物。询问学生喜欢以及不喜欢哪种小动物。学生可能会认为蝴蝶、瓢虫这样的小动物比较吸引人，因为它们有绚丽多彩的外表。表现突出的学生可能认为蜜蜂和蚕这样的昆虫对人类很有益处，因为它们能生产蜂蜜和蚕丝。与之相反，苍蝇、蚊子这类小动物则会传播疾病。

## 第二课 蜘蛛和蜘蛛网

### 教学目标

通过本课的学习，学生将能够：

- 说出有些蜘蛛会织网。
- 说出有些蜘蛛用网捕食。

### 概述

本课重点研究蜘蛛。学生将学习有关奇妙的蜘蛛世界的知识，还将有机会制作蜘蛛网模型，并讲述蜘蛛捕食的故事。

### 导入活动

卡通图片中展示了困在蜘蛛网上的一只苍蝇，但是图中没有出现蜘蛛。教师和学生一起讨论他们所看到的，并启发学生思考接下来将会发生什么。答案可以是蜘蛛快速冲出来捕获了苍蝇，或是苍蝇奋力挣扎后逃离了蜘蛛网。

### 活动一

导入活动之后，可以让学生凭记忆画一个蜘蛛网，或是带他们出去寻找蜘蛛网。一般可以在树上、灌木丛中或是建筑物的窗台下面找到蜘蛛网。

然后让学生思考蜘蛛为什么织网，并分享他们的观点。有些蜘蛛把网当作它们的家，也有些蜘蛛用网来捕食。

### 活动二

在本活动中，鼓励学生思考不同类型的蜘蛛网以及不同的蜘蛛如何用不同的网来捕