

Lesson 2 Spiders and Their Webs

Objectives

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

- State that some spiders make webs.
- State that some spiders use their webs to catch prey.

Overview

This lesson is about spiders. Students develop their knowledge of the world of these fascinating creatures. They have the opportunity to make a model of a spider's web and to tell a story about how spiders catch their prey.

Stimulus Activity

The cartoon shows an image of a fly caught in a spider's web, with no spider in sight. Discuss with students what they can see and ask them to think of what might happen next. Answers might be

that a spider rushes out and gets the fly, or the fly might wriggle around and escape from the web.

Activity 1

Following on from the stimulus activity, ask students to draw a spider's web from memory, or take them outside to look for webs. You might find webs in trees and shrubs or underneath windowsills on buildings.

Then ask students to share their ideas about why spiders make webs. Some spiders use webs as their homes, while others use webs to catch prey as well.



The worksheet is titled "Lesson 2 Spiders and Their Webs" and features a cartoon character in the top left corner. It includes a key words section with "spider" (蜘蛛) and "web" (网). Below this is "Activity 1" which asks students to find a spider's web and draw a picture. There is a large blank space for drawing and a small illustration of a spider. At the bottom, there is a cartoon of four children in a forest discussing spider webs. The page number "19" is in the bottom right corner.

Lesson 2 Spiders and Their Webs

Look at the fly (苍蝇)! What happens next?

Key Words

spider (蜘蛛)
web (网)

Activity 1

Find a spider's web. Draw a picture.

Why do spiders make webs? What do you think?

A web is a place (地方) to play.
A web is to catch things.
A web is their home.
A web is a place to sleep.

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Activity 2

In this activity, students are encouraged to think about the different kinds of webs and how spiders use different webs to catch prey. Students study the pictures and read the descriptions in order to match them.

Discuss with students their reasons for matching the statements and pictures — what clues were there in the pictures? Most commonly we see a spiral orb web strung across branches, waiting for a fly or moth to collide with it. However, there are other web designs. The ogre-faced spider, common in tropical regions, holds a net web between its long legs, and throws its web to catch the prey. The funnel web spider, common in Australia, constructs a funnel shaped web and lurks for prey in the small end of the funnel.

You might find some interesting videos to show how different kinds of spiders use their webs to catch prey. Some spiders have very unusual webs. There is even a spider that builds its web under water. It is called the “diving bell spider”. Although the web is under water, it contains air for the spider to breathe.

Unit 2 Lesson 2

Activity 2

Some spiders spin webs (结网). Match (配对) the spiders to their webs. Draw lines.

I throw (抛) my web to catch a fly.

I hide in the web and surprise (突然袭击) a fly.

I wait for (等待) a fly to come into my web.

a funnel (漏斗形的) web

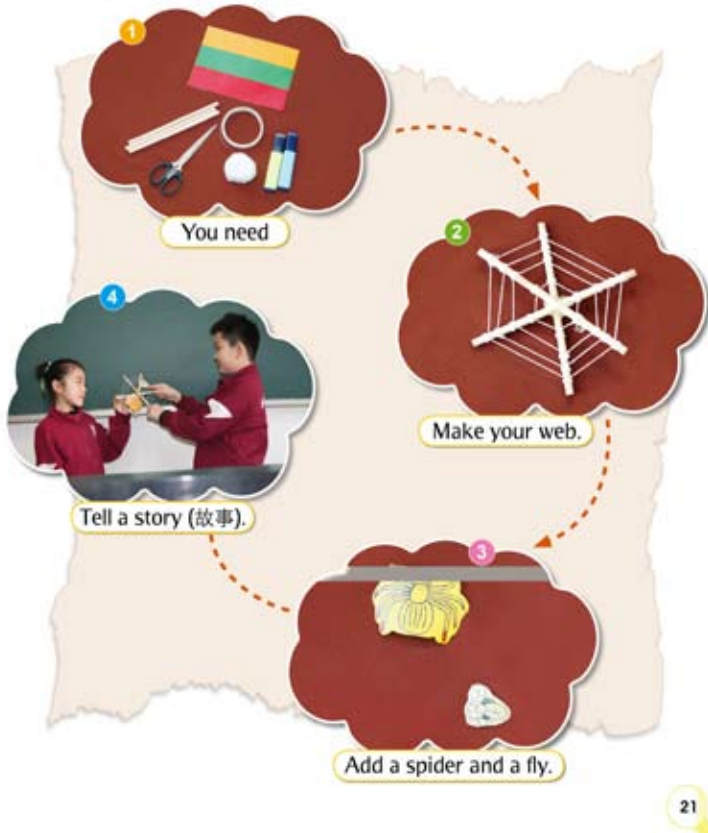
an orb (圆形的) web

a net (网状的) web

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Activity 3

Make your own (自己的) spider web.



Activity 3

In this activity, students make their own webs. First, each student will need a small frame to hold their web. You can use a forked twig or make a frame from sticks or drinking straws. Next, using about two metres of string, tie one end securely to one of the forks on the frame and then wind the string across to the other fork to represent how a spider would spin its web. The web models do not have to be perfect webs. Students will have fun making their own versions of a web. When students have used up their string, tell them to tie it or tape it down so that the web does not unravel.

Students then draw a picture of a spider and a fly and cut them out. Use adhesive tape to stick the spider and the fly to the web or cut a small slit in the paper so that they can be slotted onto the string.

Tell students to think about their spider and fly model and make up a story about the spider and the fly. Ask them to take it in turns telling their story to a partner and then to tell their partner two things that they liked best about their partner's story.

Lesson 2

Activity 4

This activity engages students through singing a song about a spider and a fly, to the tune of “Half a Pound of Tuppenny Rice” (known in some places as “Pop! Goes the Weasel”). Students can sing the song and use their models to act out the story of the spider and the fly. Perhaps one half of the class can sing the song while the other half act out the story. Then students can swap roles and sing the song again.

Now I Know ...

有些蜘蛛会织网。
蜘蛛用网来捕食。

How I Know ...

Learning in this lesson takes place through observing, but also through the process of making a model of a web and acting out the story of the spider and the fly.

Unit 2 Lesson 2

Activity 4

How does a spider catch a fly? Sing the song.

The Spider and the Fly

Spider, spider, make a web.

Try (尝试) to catch a fly.

Spider, spider, hide away.

Wait for your fly.

Spider, spider, here he comes.

Here comes your fly.

Catch him with your sticky (黏的) web.

Poor (可怜的), poor fly.

Now I Know ...

Some spiders make webs.
Spiders use their webs to catch prey (猎物).

How I Know ...

- ☒ I looked for (寻找) spiders' webs.
- ☒ I observed them closely.
- ☒ I made a spider web model (模型).



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

食。学生需要研究书上的图片，阅读相关的描述，然后将二者进行匹配。

和学生讨论他们是如何匹配图片和描述的，图中有哪些线索。通常情况下，我们会看到树枝间结有一张螺旋形的圆蜘蛛网，蜘蛛等待着苍蝇或者飞蛾自投罗网。当然，蜘蛛网的类型也多种多样。怪面蛛通常生活在热带地区，它们在自己的长腿间织网，抛网捕食。漏斗网蜘蛛在澳大利亚比较常见，它们织的网呈漏斗形状，潜伏在网的末端捕食。

教师可以找一些有趣的视频，让学生了解不同种类的蜘蛛是如何用网来捕食的。一些蜘蛛的网非同寻常。有一种叫做“水蛛”的蜘蛛甚至在水下吐丝织网。虽然网织在水下，但这种网可以储存空气供蜘蛛呼吸。

活动三

在本活动中，学生将制作自己的蜘蛛网。首先，每个学生需要一个小的框架来固定他们的网。教师可以使用小树叉，或者用小棍、吸管制作框架。然后，使用约两米长的线，将线的一端牢固地系在一个分叉上，再将线缠在另一个分叉上，以此来展示蜘蛛是如何织网的。蜘蛛网模型无需制作完美。每个学生都能在制作属于自己的蜘蛛网的过程中找到乐趣。当学生把线缠完后，让他们打个结或者用胶带粘牢以免蜘蛛网散架。

接下来，学生先画一幅蜘蛛和苍蝇的图，再把它们分别剪下来。用胶带把蜘蛛和苍蝇粘在蜘蛛网上，或者在纸片上剪开一条小缝，使它们可以卡在蜘蛛网的线上。

最后，让学生想一想他们的蜘蛛和苍蝇模型，编一个关于蜘蛛和苍蝇的故事，然后轮流把故事讲给同伴听，并请学生讲一下自己最喜欢同伴故事里的哪两点。

活动四

在本活动中，学生将用“Half a Pound of Tuppenny Rice”（在有些地方也叫做“Pop! Goes the Weasel”）的曲调来演唱关于蜘蛛和苍蝇的歌。学生可以边唱歌边用他们的模型来表演蜘蛛和苍蝇的故事。可以让班里一半学生唱歌，另一半表演故事，然后交换角色再演唱一遍。

现在我知道……

有些蜘蛛会织网。

蜘蛛用网来捕食。

我是如何知道的……

在本课中，学生通过观察、制作蜘蛛网模型并表演蜘蛛和苍蝇的故事来学习。本课没有公平实验。

- ☑ 我寻找了蜘蛛网。
- ☑ 我仔细地观察了它们。
- ☑ 我制作了蜘蛛网模型。

第三课 寻找小动物

教学目标

通过本课的学习，学生将能够：

- 在周围环境里找到小动物。
- 描述他们找到的小动物。

概述

在本课中，学生将通过探索周围环境中的小动物提高观察能力。他们会认识到有些小动物在很多地方都可以找到。指导他们安全地使用网、收集盘和放大镜等工具，同时教育他们要尊重小动物以及它们的生存环境。

导入活动

导入活动要求学生回忆他们在池塘边能找到哪些小动物。池塘里有着丰富的野生生物。那里可能会有在水面活跃的池龟、蜻蜓或蚊子，也可能有蝾螈、鱼和蜗牛。水是维持生物多样性的关键。

活动一

本活动建立在导入活动的基础上，鼓励学生利用自己已有的知识，将小动物的图片与可能发现它们的地点进行匹配。

学生可能在其他地方看到过这些小动物，这可以作为发起相关讨论的契机。小动物为寻找食物和逃避敌害四处活动。需要强调的是每个地点都有不同种类的小动物。