# Plant evidence notes

植物证据记录

**Name** 姓名 _____ **Class** 班级 _____ **Date** 日期 _____

## 1 Choose a question 勾选一个研究问题



○ **Desert cactus**
沙漠仙人掌

How does it survive dry periods?

它怎样度过干旱期？



○ **Giant water lily**
王莲

How do its leaves get sunlight?

它的叶片怎样获得阳光？

## 2 Build a research note 记录研究证据

**My source** 我的资料 ○ Card A 资料卡 A ○ Card B 资料卡 B

### A feature I see 我观察到的特征

I can see … _____

### A useful fact from my source 资料中的一条有用信息

The card says … _____

### How it helps in this habitat 它在这个栖息地有什么用

This helps the plant … _____

## 3 Match and explain 匹配并说明理由

Choose one feature and its habitat. Give a reason.
各圈出一个特征和一个栖息地，再写出理由。

**Feature** 特征 thick stem / broad floating leaf **Habitat** 栖息地 desert / pond

It helps because … _____

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# The model beak test

鸟喙模型实验



**Name** 姓名 _____ **Class** 班级 _____ **Date** 日期 _____

## 1 Predict 预测

Which tool will collect more in 40 seconds? Circle one for each food.

在 40 秒内，哪种工具能夹起更多食物？每种食物各圈出一个预测。

**Sunflower seeds** 葵花籽

tweezers / chopsticks / tie

镊子 / 筷子 / 平局

**Dry macaroni** 干通心粉

tweezers / chopsticks / tie

镊子 / 筷子 / 平局

## 2 Count and record 数一数并记录

One tester uses all four combinations in each set. Read down one column.

每组由同一位同学测试四种组合。按列从上到下填写，下一组更换测试者。

| Food 食物 | Tool 工具 | Set 1 第 1 组 | Set 2 第 2 组 | Set 3 第 3 组 | Mean 平均数 |
|---|---|---|---|---|---|
| **Sunflower seeds** 葵花籽 | Tweezers 镊子 | | | | |
| **Sunflower seeds** 葵花籽 | Chopsticks 筷子 | | | | |
| **Dry macaroni** 干通心粉 | Tweezers 镊子 | | | | |
| **Dry macaroni** 干通心粉 | Chopsticks 筷子 | | | | |

Count pieces. Mean = (Set 1 + Set 2 + Set 3) ÷ 3.

记录食物的件数。平均数 = 三组数量之和 ÷ 3。

## 3 Use your results 用数据解释

Choose one food. Compare both tools with two numbers.

选一种食物，写出两种工具的平均数。

For _____, tweezers averaged _____ and chopsticks averaged _____.

**When the food changed, what happened?** 食物改变后，结果如何？

Same tool led / Different tools led / At least one tie

同一种工具夹得最多 / 不同的工具分别夹得最多 / 至少有一次平局

My evidence ... _____

# Desert cactus 沙漠仙人掌



**Desert habitat** 沙漠栖息地

## Observe 观察

**Find the stem. What shape is it?**

找到茎。它是什么形状的？

## Read 阅读

The thick stem stores water. The cactus can use this water during dry periods.

粗壮的茎储存水分。在干旱时期，仙人掌可以利用这些水。

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# Giant water lily 王莲



**Pond habitat** 池塘栖息地

## Observe 观察

**Find a leaf. Where is it in the water?**

找一片叶子。它在水中的什么位置？

## Read 阅读

The broad leaves float on the water. At the surface, they receive sunlight.

宽大的叶片漂浮在水面上。叶片在水面上可以接收阳光。

Water Lily pads view • Freefotopia / Wikimedia Commons
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# Teaching the double block

教师用页 · 40 分钟 + 15 分钟休息 + 40 分钟

## 1 Prepare the tables 课前准备

**Printing** Print pages 1–2 double-sided, flip on the long edge, one sheet per student. Print page 3 single-sided, one copy per pair. Cut it across the center so partners can exchange cards.

**Equipment** Per group of four, provide tweezers, chopsticks, two identical bowls, sunflower seeds and dry macaroni. Set equal starting amounts within each food and leave enough in the bowl to last the full 40 seconds. Keep the bowl spacing fixed.

## 2 Teach and check 教学与检查

### Lesson 1 / Plant evidence — 40 MINUTES

0–9 min Recall the Arctic fox, then choose which polar bear fact explains warmth.

9–27 min Pairs study both plant cards. Individuals record one question, source, visible feature, fact and benefit on page 1.

27–34 min Workbook p. 21, Q1(a). Rehearse for 1 minute, write for 4 and check for 2. Students explain that broad leaves float at the surface and receive sunlight.

34–40 min Match a feature to its habitat and justify one choice. Take the 15-minute break before opening the beak lab.

### Lesson 2 / Model beak test — 40 MINUTES

0–11 min Compare finch beaks. Students predict the better tool for each food. Demonstrate moving one piece at a time into the collecting bowl.

11–27 min Run three sets of four trials, 40 seconds each. Use the page 2 row order in each set. After each timer, count, record, reset and wait. Change tester between sets.

27–38 min Enter a group's actual counts. Show the means. Each student compares the two tools on one food, then checks the ranking for the other food.

38–40 min Ask what the tools model. They can pick up pieces. A real beak can also crack food. Clear the tables.

**What to look for** Accept any conclusion supported by the counts, including a tie. If two groups differ, ask which details of their tests could have affected their counts.

**Printed book references** Student Book pp. 34–35, 40–41, 43. Teacher's Book pp. 53–54, 60–62. Workbook p. 21, Q1(a). Optional graph reading on p. 26, Q1(c).