

<b>Grade 4</b>	<b>Lesson: 1-11</b> <b>Classifying Plants and Animals</b>	<b>Reference to English</b>
<b>Standard(s): 1.OA.1</b>	<b>Domain:</b>	
<b>Content Objective(s):</b>	<b>Language Objective(s):</b>	
Use a simple classification system to classify unfamiliar Utah plants and animals.	Explain how scientists use classification schemes.	
<b>Essential Understanding:</b>	<b>Academic Vocabulary for Word Wall:</b> <b>Listen:</b> <b>Read:</b> <b>Write:</b> <b>Speak:</b>	
<b>Materials:</b> <input type="checkbox"/> "My Environments Book" <input type="checkbox"/> Items to Sort (buttons, Chex Party Mix, pasta, manipulatives) <input type="checkbox"/> Collection of Leaves <input type="checkbox"/> 2 Tree Classification Keys (list and dichotomous) <input type="checkbox"/> Animal Pictures <input type="checkbox"/> 2 Animal Classification Keys (list and dichotomous) <input type="checkbox"/> 3x5 Index Card (1 per student)	<b>Additional Lesson Vocabulary:</b>  <b>Sentence Frames:</b>	
<b>Lesson: Classifying Plants and Animals</b>	<b>Instructional Time:</b>	

### Opening: (10 minutes)

- ☐ Give students a variety of items to sort (Ex: buttons, Chex Party Mix, pasta, math manipulatives, etc.)
- ☐ Have them sort the items into groups.

T: 你创建了什么组？为什么？你用了什么特征创建了这个组？

T: 同学们之间相互分享，比较不同的分类。

T: 大家把东西分类用的是同样的方法吗？为什么？

### Introduction to New Material (Direct Instruction): (7 minutes)

History of Classification:

T: 当我们按照物体的共同特征将其分类到不同组时，我们就更容易理解并学习这些物体。这些分类同时帮我们识别并命名新物体。

T: 1753 年, Carolus Linnaeus, 瑞典的一位科学家, 创造了第一个众所周知的分类系统。该系统将当时所有已知的活的动植物进行了分类。Linnaeus 将所有的活的有机体分成两大组, 这两大组被称为界: 植物界和动物界。从那以后更多的有机体被识别, 分类系统进一步完善了。近代研究建议了五个界: 植物界, 动物界, 原核生物界、原生生物界、真菌界。

T: 科学家们已经发展了分类钥匙, 通过观察动植物的特征, 帮助他们把不同的动植物归类。

T: 让我们用这些分类钥匙把 Utah 的动植物归类。

### Guided Practice: (10 minutes)

Classifying Plants:

T: 从 Utah 的树上收集不同的树叶。你可以让学生在休息的时候收集一些或者让他们从家里带来一些树叶。你可能需要自己收集一些, 确保你会找到大多树种。

(Note: The leaf collection can be laminated and reused in the future.)

T: 让我们看一下我们要用的分类钥匙。给每个学生一份有两种不同的分类钥匙 (列表和二叉树)

花一些时间帮同学们学习并理解两种不同的分类钥匙以及如何运用他们。

Select a sample leaf and use it to model the classification process for the students. Record the answer in their "My Environments Book."

- ☐ Have students use the keys to classify several leaves and the trees they came from. Record answers.
- ☐ Discuss and correctly identify the leaves, so students can check their work.

Classifying Animals:

T: 我们一起看一下我们正在用的分类钥匙。给每个学生一份有两种不同的分类钥匙 (列表和二叉树)

花一些时间帮同学们学习并理解两种不同的分类钥匙以及如何运用他们。

- ☐ Select a sample animal card and use it to model the classification process for the students. Record the answer in their "My Environments Book."
- ☐ Give students a set of animal cards (without names).
- ☐ Have them use the keys to classify several animals. Record answers.
- ☐ Discuss and correctly identify the animals, so students can check their work.
- ☐ Note: The Classification Keys only go to the type of animal (mammal, bird, fish, insect, etc.) Students will only be expected to list this type of animal rather than its individual name (butterfly, moose, red fox, etc.)

### Independent Practice: (6 minutes)

T: 我们已经对 Utah 常见的动植物进行分类了。但是如果遇见了一种新的动物或植物, 你会怎么办呢? 我们可以用同样的分类钥匙识别它吗?

- ☐ Give each student a 3x5 card.
- ☐ On one side have them draw a new animal. Have them consider the characteristics listed on the keys while they create.
- ☐ On the back of the card have them list the animal group in which their animal fits (mammal, bird, fish, insect, etc.)
- ☐ Trade cards with a friend and see if you can correctly classify their new animal. Check the answer on the back.
- ☐ Trade cards again and repeat the process a few more times.

### Closing: (4 minutes)

- ☐ Can the students use the classification key to correctly identify the imaginary animal?

Assessment:

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