

TRB 4:5 - Investigation 7 - Classification Schemes

Summary

Students will place organisms into the correct classification and justify their reasoning.

Group Size

Small Groups

Materials

- [Pictures of Utah plants and animals](#)

- [Classification worksheet](#) (pdf)

An overhead copy of the [Classification worksheet](#) (pdf) for teacher use

Butcher paper or poster board to record results

Optional:

overhead pictures of Utah plants and animals for the teacher to use

Background for Teachers

In 1753, Carolus Linnaeus, a scientist from Sweden, created the first known system to classify all known living things in that time period. Linnaeus divided all living organisms into two large groups known as kingdoms: Plantae and Animalia. Since then more and more organisms have been identified and the classification system has grown. Recent studies suggest five kingdoms: Plantae, Animalia, Fungi, Protista and Monera.

Remember not to tell the students what groups the organisms go into. Students must be able to place them into groups and justify their reasoning. As long as a student can state the common characteristic for their group and create a scheme for it, then they have learned to classify.

Intended Learning Outcomes

1. Use science process and thinking skills
3. Understand science concepts and principles

Instructional Procedures

Pre-Assessment/Invitation to Learn

Give the students an opportunity to classify objects such as buttons, cereal, Chex Party Mix, shoes, or potato chips. Let the students classify the objects into groups and have them describe their reasoning. Remember the students must be able to include all objects and a reason for their decisions. This can be done as a class using a chalkboard or overhead.

Instructional Procedure

Hand out the plant and animal pictures for the students to cut out and the [Classification worksheet](#) (pdf).

In small groups, let the students classify the pictures into groups and record their classification schemes on the classification worksheet. See how many groups the students can come up with. Walk around the room to provide extra clues and check classification schemes and groups.

Following are some examples of groups.

Lives in Wetlands	Lives in Desert	Lives in Forest
• bulrush	• prickly pear	• mule deer
• cattails	cactus	• elk
• beaver	• sagebrush	• moose
• frog	• jackrabbit	• cougar

â€¢ salamanders	â€¢ cottontail	â€¢ bobcat
â€¢ muskrat	rabbit	â€¢ barn owl
â€¢ catfish	â€¢ coyote	â€¢ red fox
â€¢ carp	â€¢ deer mouse	â€¢ lark/robin
â€¢ trout	â€¢ kangaroo rat	â€¢ magpie
	â€¢ red-tailed hawk	â€¢ crow
	â€¢ gopher snake	â€¢ spruce
	â€¢ rattlesnake	â€¢ fir
	â€¢ desert tortoise	â€¢ quaking
	â€¢ lizard	â€¢ cottonwood
	â€¢ pinyon jay	

Mammals	Birds	Reptiles
â€¢ jackrabbit	â€¢ red-tailed hawk	â€¢ gopher snake
â€¢ cottontail rabbit	â€¢ barn owl	â€¢ rattlesnake
â€¢ red fox	â€¢ lark	â€¢ lizard
â€¢ coyote	â€¢ robin	â€¢ tortoise
â€¢ mule deer	â€¢ pinyon jay	
â€¢ elk/moose	â€¢ magpie	
â€¢ cougar	â€¢ crow	
â€¢ bobcat		
â€¢ deermouse		
â€¢ kangaroo rat		
â€¢ muskrat		
â€¢ beaver		

Insects	Fish
â€¢ grasshopper	â€¢ carp
â€¢ ant	â€¢ trout
â€¢ moth	â€¢ catfish
â€¢ butterfly	
â€¢ housefly	
â€¢ bee	
â€¢ wasp	
â€¢ pill bug	
â€¢ millipede	

Other ideas for classifying groups can include: What do the animals eat? carnivore, herbivore, and omnivore. What covers their body? hair, scales, and feathers. What is it? plant or animal. As long as the students can provide a solid reason for their classification scheme that satisfy all the pictures in their group, they have classified the organism.

Have each group of students explain their classification system to the class.

Extensions

Language Arts-

Have the students answer the following questions in their science journal. Journal entry: What does it mean to classify? Give some examples of what other groups of classification that the class came up with. Do you agree with these groups of classification schemes? Why or why not?

Science-

Give the students different pictures of Utah animals to see if they can create classification schemes. *(ILO 1)*

Homework & Family Connections

As a family, find some objects they can classify: tools; a can of miscellaneous nuts, bolts, nails, and screws; toys; shoes; etc. Have students share what they classified in class.

Assessment Plan

Show students pictures of additional animals and see if it fits into their classification groups.

Authors

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