

Arkansas K-12 Science Standards Lesson Planning Template

Grade: 2nd	Topic: PS1. Structure and Properties of Matter: Classifying	Lesson # 1 in a series of ____ lessons
Brief Lesson Description: Students will define similar properties of selected items, and resort to make new classifications		
Performance Expectation(s): 2-PS1-1 Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.		
Specific Learning Outcomes: Students will understand that objects have observable properties.		
Narrative / Background Information		
Prior Student Knowledge:		
Science & Engineering Practices: ___ Asking questions and defining problems ___ Developing and using models ___x Planning and carrying out investigation ___ Analyzing and interpreting data ___ Using math and computational thinking ___ Constructing explanations/designing solutions ___ Engaging in argument from evidence ___ Obtaining/evaluating/communicating info	Disciplinary Core Ideas: PS1.A Structure and properties of Matter Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties.	Crosscutting Concepts: ___x Patterns ___ Cause and effect ___ Scale, proportion and quantity ___ Systems and system models ___ Energy and matter ___ Structure and function ___ Stability and change
Possible Preconceptions/Misconceptions: The students may have a limited idea of how objects can be sorted. They may not see one.		
LESSON PLAN – 5-E Model		
ENGAGE: Opening Activity – Access Prior Learning / Stimulate Interest / Generate Questions: Separate several students into 2 groups based on their similar characteristics. Have the class talk about why these students might be grouped together. Discuss the similar and different characteristics.		
EXPLORE: Lesson Description – Materials Needed / Probing or Clarifying Questions: The teacher will set up several tubs around the room. (amount of tubs dependant on your number of groups) The students will be in small groups going around to investigate the objects in each tub The students are writing down what is in each tub and the observable characteristics of the objects They should make a decision as to how the objects were classified After the groups have had time to visit each tub and make a choice of how the objects are sorted call them back to the group area		
EXPLAIN: Concepts Explained and Vocabulary Defined: Discuss their investigations of the properties in each group of items. Read Touch It!: Materials, Matter, and You by Adrienne Mason Refine the recorded properties that are the same in the groups of items. Discuss why these items were grouped together. Vocabulary: color shape texture size mass magnetism		
ELABORATE: Applications and Extensions: All items in the original groups are mixed together. The class will work together to find a new way to sort those items based on different properties.		

Provide a station for students to work in after they complete independent work. Have many different items in a tub that students can classify in different ways based on their properties. Students should write their investigations in their science notebook.

[illegible]

