Arkansas K-12 Science Standards Lesson Planning Template

Grade: 2nd grade	**Topic:** Changes in Matter	**Lesson 2**

Brief Lesson Description: Changes in properties of an egg

Performance Expectation(s): 2-PS1-4 Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.

Specific Learning Outcomes: I can understand that some changes are reversible and some are irreversible.

Narrative / Background Information

Prior Student Knowledge:
-Students need to know the difference between physical and chemical changes. (melting vs dissolving)
-Students know that some changes can be reversible

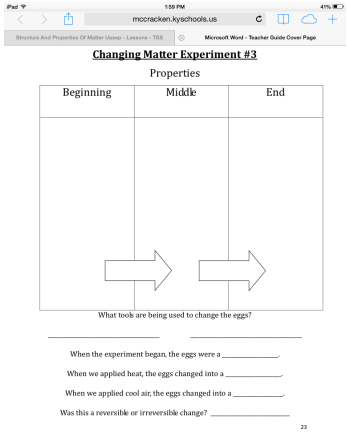
Science & Engineering Practices:	**Disciplinary Core Ideas:**	**Crosscutting Concepts:**
__Asking questions and defining problems __Developing and using models x_Planning and carrying out investigation x_Analyzing and interpreting data __Using math and computational thinking x_Constructing explanations/designing solutions x_Engaging in argument from evidence __Obtaining/evaluating/communicating info	**Chemical Reactions**	x_Patterns x_Cause and effect __Scale, proportion and quantity __Systems and system models x_Energy and matter __Structure and function __Stability and change

Possible Preconceptions/Misconceptions:
-Students may think that all changes are reversible.

LESSON PLAN – 5-E Model

ENGAGE: Opening Activity – Access Prior Learning / Stimulate Interest / Generate Questions:
Show students an egg, make a chart of the eggs properties as a class. Then show video but stop at 1:48 and discuss what he just did to the egg. What properties does it have now?
https://www.youtube.com/watch?v=frPbdPvORy0

EXPLORE: Lesson Description – Materials Needed / Probing or Clarifying Questions:
In partners they will get an egg to break. One student will break the egg into a bowl- students will draw what they notice about the egg. Then the other student will stir the egg and they will need to write down what was the change (properties)



As a group discuss their observation.

EXPLAIN: Concepts Explained and Vocabulary Defined:
Read "Freezing and Melting" in the Change It book. Make a t-chart with ways to heat things/ ways to cool things.

Vocabulary: heating, cooling, reversible changes, irreversible changes

ELABORATE: Applications and Extensions:
Students will put their egg mixture in a plastic bag and then the teacher will put them in the microwave. Then the students will observe what happened to the eggs.

EVALUATE:

Formative Monitoring (Questioning / Discussion):
questioning--- how could we make the egg the way it was before? How can we make it round and hard? How can we make it runny?
Summative Assessment (Quiz / Project / Report):
exit ticket--can we put the egg back into its

Elaborate Further / Reflect: Enrichment: Paper burning prompt/which food would you mail to a friend prompt?

Materials Required for This Lesson/Activity			
Quantity	**Description**	**Potential Supplier (item #)**	**Estimated Price**
	eggs		
	chart paper		
	youtube		