Checklist for Explore Phase Group Questioning

Lab Activity: *Mixtures Exploration Lab*
Purpose for the Lab*: "Demonstrate that some mixtures maintain physical properties of their ingredients..."*
Date/Class Period:

Questions	Group 1: • • • •	Group 2: • • • •	Group 3: • • • •	Group 4: • • • •	Group 5: • • • •	Group 6: • • • •
What is the problem or question we are trying to solve in this activity? *Sample student reply:* *We are looking for changes in properties when we create mixtures.*	*Sample teacher comment: Group1 has a good grasp of the purpose for the activity.*					
What do we need to know to find out? *Sample student reply:* *We need to know what the properties of the ingredients are before we make the mixture and then after we make it.*	*Sample teacher comment: Group 1 understands properties of materials can remain or change in creating a mixture.*					
What do we already know? *Sample student reply:* *We already know several properties of the ingredients of the mixture by just make observations. We can predict what some of the changes will be because we have already made mixtures before.*	*Sample teacher comment: Group 1 understands they have previous knowledge of the properties of the ingredients and are ready to predict the properties of the mixtures they will create.*					

Evaluate Phase Rubric – Mixtures and Solutions

(NGSS) Disciplinary Core Idea PS1.B: Chemical reactions, "When two or more different substances are mixed, a new substance with different properties may be formed"

Performance Expectation 5-PS1-4 "Conduct an investigation to determine whether the mixing of two or more substances results in new substances"

Student Name:

Student understanding:

	Level 4 **Advanced**	**Level 3** **Accomplished**	**Level 2** **Developing**	**Level 1** **Beginning**	**Total Score**
DCI PS1.B **Chemical Reactions** □ When two or more different substances are mixed, a new substance with different properties may be formed	Demonstrates **application** of understanding (can articulate examples of mixtures with new properties not created during investigation)	Demonstrates **complete** understanding but without application (can distinguish new properties of mixtures created during investigation)	Demonstrates **partial** understanding (can distinguish some new properties of mixtures created during investigation)	Demonstrates **limited** understanding (does not have a clear understanding that mixtures with new properties can be created)	
Vocabulary □ Mixture □ Solution □ Property □ Substance	Demonstrates **application** of understanding of lesson vocabulary	Demonstrates **complete** understanding of lesson vocabulary	Demonstrates **partial** understanding of lesson vocabulary	Demonstrates **limited** understanding of lesson vocabulary	

Teacher Comments:
Student Comments:

Student Progress Tracking Chart

Date	Title/Page	Concept/Subject	My Score	One Idea for Improvement
Sept. 24	***Vocabulary Quiz/p. 15***	***Mixtures and Solutions***	***80***	***property***
