Is it a CLAIM?

A class was answering the following science question.

Question: Are soap and fat the same substance?

The teacher asked the class to answer the question using a *Scientific Explanation*. Below are some statements from their explanations.

- Which of the following statements are CLAIMS?
- What feedback would you give each student to make the statement a claim or to improve the claim?

Is it a CLAIM? Yes or No	STATEMENT	FEEDBACK
	Yes they are.	
	I think soap and fat are different substances.	
	Fat and soap are the same thing.	
	No.	
	Soap is different.	
	Fat is not the same thing.	
	Fat is yellowish but soap is white.	

What is your definition of a CLAIM? What do you notice about the statements that ARE claims? How are they different than the statements that are NOT claims?

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Is it a Claim?

Facilitation Notes

Purpose

The purpose of this assessment probe is to elicit learners' ideas about what constitutes a CLAIM in a scientific explanation. If these ideas are not uncovered they could prevent a learner from fully understanding the CER framework.

Explanation

Is it a CLAIM? Yes or No	STATEMENT	Possible feedback
No	Yes they are.	Be more specific. The claim should stand alone.
Yes	I think soap and fat are different substances.	Stands alone
Yes	Fat and soap are the same thing.	Not correct, but is in the form of a claim
No	No.	This is not a complete statement. The claim should stand alone.
No	Soap is different.	Be more specific, soap is different than ___
No	Fat is not the same thing.	Be more specific, soap is not the same as ___
No	Fat is yellowish but soap is white.	There is no claim. This looks like evidence to support a claim.

There could be some confusion about the 3rd statement since this is not a CORRECT claim, however it is written in the form of a claim. This probe is intended to uncover ideas about what constitutes a claim, not whether a claim is correct or incorrect.

Facilitation Considerations

This probe is a Formative Assessment Classroom Technique (FACT) called a *Justified List*. It begins with a statement about a concept. Examples that fit (or possibly do not fit) the statement are listed. Learners check off the items on the list and provide justification explaining their rule or reasons for their selections. This assessment probe can also be used to provide an opportunity for learners to engage in the ideas on the list and modify their thinking based on new evidence or research.

Misconceptions

Learners may have a variety of misconceptions regarding the term CLAIM and what is an adequate representation of a CLAIM. The examples in the probe represent a range of common attempts made when writing a CLAIM as part of a scientific explanation.

Administering the Probe

This probe is best used at the beginning of instruction on a CER framework OR just after some initial instruction. Learners should be encouraged to share their choices and thinking with a partner. The teacher should circulate around the room to observe the responses, and the conversation occurring between partners. Use this information to inform your ongoing instruction on the CER framework.

It is recommended to immediately use this probe to debrief as a whole class. Are students noticing what differentiates a claim from a non-claim? Do students have good feedback for the statements that are not CLAIMS?

References

Supporting Grade 5-8 Students in Constructing Explanations in Science, McNeill & Krajcik (2011) http://books.google.com/books/about/Supporting_Grade_5_8_Students_in_Constru.html?id=_PzIbwAACAAJ

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Based on the Formative Assessment Probe framework developed by Page Keeley in her Uncovering Student Ideas in Science series