**Linking Essential Questions to Engaging Lesson Objectives – Science**

**Objectives**

Teachers will learn more about linking overarching essential questions to more specific “guiding questions” for each lesson and how to translate abstract content and skill standards into engaging lesson objectives that communicate how the intended learning is relevant to students’ lives.

**Guiding Questions**

How can we engage students’ interest each day throughout the unit so that they will understand how everything they are learning fits into the big picture and will exert the effort required to grow in mastery of content and skills?

**At a Glance**

 Introduction

 Essential questions

 Translating lesson objectives so they will engage students

 Planning how to creatively introduce essential question and objective to students

 Application activity and time to share with colleagues

**Facilitator’s Notes**

This session is designed to help teachers transform the generally boring objective statements (Students will be able to or SWBAT) found posted on the board in classroom after classroom. It may evoke resistance from teachers and administrators who have been used to a certain framework and have completely lost sight of how badly the typical objective statement works in actually engaging students.

Background on transforming objectives by using “I can” statements for students can be found at <https://www.sophia.org/tutorials/i-can-statements-2>. Examples of “I can” statements for Common Core objectives can be found in sources linked in <https://turnonyourbrain.wordpress.com/2011/06/27/common-core-i-can-statements/>.

**Materials**

Paper and pens for each table

Handout: Teacher Reflection Form

Resources: Share links to online resources mentioned above with teachers by email to facilitate them actually being able to use the resource.

**Procedure**

Have teachers sit at tables of about 4 participants if possible. They will need materials for writing.

**Introduction (5-7 minutes)**

Facilitator situates the session within the overarching BRACE Motivation components framework and introduces guiding question and objectives. The session proceeds to leading teachers in thinking about essential questions and specific essential questions in science.

**Large Group Interactive Presentation (25-30 minutes)**

The goal of this session is to lead teachers through the process of translating typical boring lesson objectives into something that can resonate with students and help motivate and engage them in the learning process.

Slide 7: Lead participants in a discussion of the SWBAT (Students will be able to) lesson objective, asking questions that help them to critique the objective as stated and begin thinking of how to transform it into something that will be meaningful to students.

Slide 8: Lead participants to reflect on what kinds of essential questions the lesson objective on Slide 7 is related to. One possibility is included in Slide 8 (delayed appearance in slide show mode).

Slide 9: Lead participants to reflect on the advantages of using “I can” statements in objectives. As pointed out at <https://www.sophia.org/tutorials/i-can-statements-2>, these help students to take ownership of their learning and track their progress. They should be written in accessible, non-technical language. Lead discussion of ideas about how to rewrite and transform the SWBAT statement. One possibility is included in Slide 9 (delayed appearance in slide show mode).

Slide 10: Lead participants in a discussion about how one can connect the objective, such as the example on Slide 9, to students’ lives. Why should they care about having a Punnett Square tool that could help them predict the characteristics of the offspring of two parents?

Slide 11: Summarize suggestions for creatively introducing the day’s objective to students and relating it to the overarching essential question. Open up discussion to teachers about how they may have tried to follow these steps in the past.

Slide 12: One example of using a photo to spark students’ interest in the genetic issue to be addressed in the lesson using Punnett Squares. Slide 13 provides an example of how teachers can use a Punnett Square example like this slide to lead into more intensive instruction during the class session.

**Application Activity -- Smaller Group Discussion (10-15 minutes)**

If there are more than 7 teacher participants, it would be good to divide the group into smaller groups (3-4) for discussion, using natural grouping of teachers who may share common curriculum and lessons and who could reflect together about common lesson objectives.

Using questions on Slide 15, have teachers reflect individually and together about an upcoming lesson objective and how they can apply the steps discussed in the session to create engaging lesson objectives and an engaging 5-minute introduction to the lesson for students. If teachers all have individual lesson objectives, they can work individually and then share their ideas with a colleague or small group (Slide 16).

**Teacher Reflection Time (using handout form) (5 minutes)**