**Teacher:** Deannia Opabola, Eronda Bradley, and Giovanni Haynes

**Date:** June 19, 2013

**Subject / grade level:** 7th

**Materials:** container, water sample, map, paper

**NC SCOS Essential Standards and Clarifying Objective**

SC.7.E.6.6 and 6.7

Through acquiring an exploration, students will understand how humans impact the Earth and its natural resources.

**Lesson objective(s):**
Students will become familiar with water born organisms

**Differentiation strategies to meet diverse learner needs:**
Grouping, BRIM

**ENGAGEMENT:** Q’s Where do you think microorganisms are found?
Do you have bacteria on your skin or hands?
How can microorganisms be transferred?
Students will be shown a pictures of different water pathogens.

- Describe how the teacher will capture students’ interest.
- What kind of questions should the students ask themselves after the engagement?

**EXPLORATION**

- Describe what hands-on/minds-on activities students will be doing.
- List “big idea” conceptual questions the teacher will use to encourage and/or focus students’ exploration
  Students will bring in water samples and prep/test water samples
  Students will read an article on water pathogens

**EXPLANATION**

- Student explanations should precede introduction of terms or explanations by the teacher. What questions or techniques will the teacher use to help students connect their exploration to the concept under examination?
- List higher order thinking questions which teachers will use to solicit student explanations and help them to justify their explanations.

Students will ask what will happen if they swabbed their hands on a plate of agar.

Predict what will if there is an increase in waste disposal.

Explain what are contributing factors to water contamination?

**ELABORATION**

- Describe how students will develop a more sophisticated understanding of the concept.
- What vocabulary will be introduced and how will it connect to students’ observations?
- How is this knowledge applied in our daily lives?
  Students will be given an assignment to research water contamination and to write an article of three paragraphs using assigned vocabulary.
EVALUATION

- How will students demonstrate that they have achieved the lesson objective?
- This should be embedded throughout the lesson as well as at the end of the lesson
  Students will answer questions on the white board followed by open class discussions and finally students will be given an exit ticket.