6th grade - FOSS **Kit:** Mixtures & Solutions

**Activities:** Investigation 1- Separating Mixtures Part 1

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**Audience:** 6th grade

**Materials Included:**

* Per group:
  + 1 screen
  + 1 FOSS Funnel
  + 3 craft sticks
  + 2 filter papers
  + 6 plastic cups
  + 6 sticky notes
  + 2 paper towels
  + 1 container, ½ liter
  + 1 syringe, 50-ml
  + 1 basin
  + 2 hand lenses
  + 4 student sheets #2 called Separating Mixtures
  + 2 student sheets #3 called Thinking about Mixtures
* For the Class:
  + 6 spoons, 5-ml
  + 2 containers of kosher salt
  + 2 containers of gravel
  + 2 containers of diatomaceous earth
  + 2 pitchers
  + Water
  + Saftety goggles
  + Transparent tape
  + Flip chart

**Materials Not Included:**

* Cookies Materials
* Pictures for gallery walk

**Big Idea:**

* Making and separating mixtures

**Hook:** Gallery walk using pictures of mixtures and solutions. Students will be asked what the pictures have in common. (ex: baked good, cereal, tire, clothes, ocean, mud)

**Prior Knowledge/ Experience:**

* Basic measuring skills

**Improvements:**

* Critical to establish procedures for using lab equipment and to designate students to get materials and supplies that are needed {especially since this is the first time they will be using some these supplies}
* Review notebook procedures and establish protocols for recording data. Remind students of the Scientific Process.
* Some class discussions could be turned into small group discussions which may lead to greater investigation by students (ex: step 10)
* Teachers are encouraged to pose the challenge to students so that they come up with solutions rather than are just told what to do next.

**Suggestions for Lesson Extensions:** Students will help to make No Bake Cookies while using measurement and mixture. After the baking is done, discuss with students if the ingredients can be separated. You may also choose to have them brainstorm about how they would go about separating the ingredients.

**Reflections:** As a small group, students will create a symbolic representation of their experience and the learning they did through their investigation.

**Timing:** 2 class periods