Task: Density measurement in real world 8th grade Science
Describe the context of your task here. Separate the parts of the task into A, B, C, etc.   A. The task will be for students to determine the density of snack cakes. B. They will determine the mass using a balance beam.These weights will be recorded on a spread sheet. C.Then students will calculate the volume of each cake.(using a ruler) D.When students have all this information they will determine the density. The goal of the lesson will be to determine if the cake will be the right density for production. E.The student will then do a writing assignment to explain possible reasons that the cake was out of specification.
Common Core State Standards
List the Common Core State Standards (and math practices if applicable) associated with your task.   Key Ideals and Details #3 Follow precisely a multistep procedures when carry out experiments, task measurements,or performing technical tasks.
Essential Understandings
What key insights should students take from participating in this task? The student will have a hands on understanding of what density means. They will be able to discriminate between density specifications. The student will give written response to why certain cakes did not make specification.
Possible Solutions/Solution Paths
What solutions or solution paths are acceptable in achieving a correct response for this task? Be sure to address all parts of the task.   There will be several cakes that do not meet specification. That will generate thoughts of possible explanations of why they did not meet specifications. Possible answer can be temperature, to many materials, gravity or the velocity.
Additional Teacher Information
Add any additional notes that will help the teacher execute the task including necessary manipulatives, equipment, etc., and possible students misconceptions that may need to be addressed.

Need 6 to10 types of snack cakes.
Balance beam
ruler
pencil
paper
Teacher needs to take all densities and determine criteria for experiment.