**ESIO TROT: MATH, VISUAL ART, THEATRE**

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| ***GRADE***  | ***CONTENT AREAS BEING INTEGRATED*** |
| THIRD | MATH, VISUAL ART, THEATRE |

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|  | ***ARTS DISCIPLINE***  | ***OTHER CONTENT AREA*** |
| Standards Addressed in the Integrated Lesson/Activity | **THEATRE*** 1. Use the vocabulary of theatre, such as character, setting, conflict, audience, motivation, *props*, stage areas, and blocking, to describe theatrical experiences.
	2. Develop problem-solving and communication skills by participating collaboratively in theatrical experiences.

**VISUAL ARTS**2.2 Mix and apply tempera paints to create tints, shades, and neutral colors. | **[CCSS.MATH.CONTENT.3.MD.A.2](http://www.corestandards.org/Math/Content/3/MD/A/2/)**Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).1 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.) |
| Student Objectives in Each Discipline  | Students will create props for a dramatization of Roald Dahl’s *Esio Trot*. Students will learn about mixing tempera paints to create shades of green for tortoise props/puppets.  | Students will estimate and measure masses to create tortoise props/puppets for the dramatization of the story *Esio Trot.*  |

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| Integrated student Objective  | *What is the objective of the integrated activity? Look at the connections being made between the two content areas. At the end of the integrated activity, students will be able to…*Students will create props for a production of Roal Dahl’s *Esio Trot*, measuring the masses of the object to create the sizes specified in the story. Students will create a chart and compare the sizes of each tortoise.  |
| Essential Question | *What is the question you want the students to be able to answer at the end of this lesson?*Mr. Hoppy makes sure that the “size and color” of the tortoises are exactly right for his plan to work. How can we use measurement of mass and color mixing to create appropriate props/puppets for scenes from *Esio Trot*?  |

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| ***Materials and Resources*** |
| Digital or kitchen scales from science kit Graphic organizer for measuring the masses of each tortoisePhotographs, illustrations, books of tortoises for reference. Paper Plates, newspaper, construction paper. Craft and found objects to add weight to tortoises ***(***Buttons, stones, sequins, etc) Tempera Paints, paintbrushes, watercups, paper towels. Instructional Videos on Mixing Green Paint: <https://www.youtube.com/watch?v=NYwvCbaGzKc>“Tints and Shades” Green: <https://www.youtube.com/watch?v=lN-osaeYTzE&list=UUgsk-h1CBPvj3FESiIO0oJQ> |

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| ***Lesson/Activity Description***  |
| Day One: Introduction1. Students will read *Esio Trot* and as a class create a chart of different sizes of tortoises (3oz-27oz).
2. Demonstrate converting ounces to metric system grams.
3. Students will divide into groups of 5 and brainstorm how to make 5 tortoises of different weights. Each group will ultimately dramatize the story with the two main characters, two puppeteers, and a narrator.

Day Two: Size1. Students will create tortoises using paper plates and construction/newspaper.
2. In groups students will weigh and estimate how to create appropriate weights for their tortoises. Students will estimate how much weight the painting will add.
3. Students will weigh their own tortoise and convert ounces to metric system grams. Students will make a chart of their tortoises with their group.

Day Three: Color1. Students will watch “Color Mixing” video and begin experimenting with different colors of green for their tortoises
2. Students will observe colors in different illustrations and pictures of tortoises.
3. Students will practice creating different shades of green and work to create a shade that all the group’s tortoises can share. Students in each group will be able to explain how they created a particular shade of green.

Day Four: 1. Students will measure masses of their completed tortoises again to see if it matches original chart.
2. Students will dramatize story as a group using completed puppets.

Day Five:1. Create performance criteria chart with class.
2. Groups perform *Esio Trot* for each other, assessed based on criteria chart.
3. Groups may perform for other classes and create math questions based on comparing and contrasting masses of tortoises.

*Journal: Create math problems based on the story and ask audiences to solve them.* *Assessment: Students will be assessed based on final product, charts created, journal entries, and performances.* |