Montessori Lesson Plan

School: Craig Montessori School	Teacher: Shamika Johnson
Subject/Topic(s): Math	
Grade Level: 8	Theme: Resilience
Curriculum Components Included: ☐Project ☐Mini-Whole Grp ☐Lesson-Small Grp ☐Student engagement during lesson ☐Shelfwork ☐Rubric ☐Self-Assessment ☐Seminar/Qs ☐Interdisciplinary ☐ Outside Opportunity	
Seven Gateways for Adolescence addressed in this lesson: ☐Deep Connection ☐Silence & Solitude ☐Meaning & Purpose ☐Joy & Delight ☐Creative ☐Transcendence ☐Initiation	

Standards/Objectives

8.NS.1: Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.

Student Friendly Language:

Students will be able to recognize a number as rational or irrational by looking at its fraction or decimal form.

Math Practice 6: Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

Materials: Teacher	Materials: Student	Time/Dates
- TE - Rulers (for differentiation) - Dry erase markers	- Text - Notebook - Pencil - Dry erase boards - Dry erase markers	- September ·

Facts/Skills (Prior Knowledge)	Concepts/Big Ideas
- Students should know how to write a rational number as a decimal - Describe relationships between sets and subsets of rational number - Compare rational numbers	- Essential Question: How do you rewrite rational numbers and decimals, take square roots and cube roots, and approximate rational numbers?·

Lesson Relates to Theme (Note: Every content lesson will not directly relate to the theme)
- N/A

Connection to Elementary Material or Lesson

Step-by-Step Procedures	
1st Period Lesson – 20 minutes (Include steps and materials) - Open - Review vocabulary using new vocabulary strategy presented in the text - Review each example (3) together as a group and answer any questions or address any misconceptions that may arise	
2nd Period – Recognition (Shelfwork) - Vocabulary venn diagram on rational and irrational numbers - Rational/irrational card sort .	2nd Period – Recall Practice - Work Through the explore activity in a pair or group of no more than 3. This is not a solo activity. - Work through the guided practice problems alone, with a partner or group of no more than 4 to complete: - 1-6 on pp. 12 picking any 3 - 7-11 pp. 12 picking any 3 - 13-15 pick any 2 - 16-18 pick any 2 - We will go over problems together when we

	reconvene as a whole group.-

3rd Period – Student Application

- Lesson Quiz (Exit Ticket)

Plan for Differentiation

Teaching	Work	Assessment

- None	- Emerging students
	  - Only work through the guided practice problems
	- Grade Level Students
	  - Students will work through guided practice as well as independent practice problems.
	- Enrichment students
	  - Students will work through all of the problems.
		- There will not be differentiation in the assessment because it is a quick check to see if the student understands the skill. It is formative and not graded.
		- The assessment will be offered on pencil/paper as well as digitally. Students will have the option to do it either way.

Outside Support: Who, What, How

SpEd Teacher - Per each student's IEP

Formal Assessments

Formative Assessments

Lesson Quiz

- Google Form of quiz for answers
- pp. 13 in TE
- Questions 1-5

Summative Assessment

N/A