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Unit Outcomes

Subunit One: Patterns and Expressions

1. Students will be able to construct written or symbolic expressions using a given form (application).

2. Students will be able to construct models of expressions using algebra tiles and pictures (application).

3. Students will be able to analyze whether two expressions are equivalent using models and symbolic algebra (analysis).

4. Students will be able to use models and symbols to compose linear and non-linear patterns (synthesis).

Subunit Two: Equations

1. Students will be able to use models to demonstrate the addition, subtraction, multiplication, and division of integers (application).

2. Students will be able to compose the rules for the addition, subtraction, multiplication, and division of integers using their experience with models (synthesis).

3. Students will be able to explain the correct order of operations for given problems.

4. Students will be able to demonstrate their knowledge of solving equations using models and symbolic form (application).

5. Students will be able to apply their knowledge of equations to word problems of real life context (application).

6. Students will be able to justify how models for equations show inverse operations (evaluation).

7. Students will be able to formulate an explanation for the connection between order of operations and solving equations (synthesis).

8. Students will be able to evaluate and judge the similarities and differences between equations and expressions (evaluation).

Subunit Three: Inequalities

1. Students will apply their knowledge of solving equations to solve inequalities using inverse operations (application).

2. Students will be able to construct a model for inequalities (application).

3. Students will be able to apply their knowledge of inequalities to word problems of real life context (application).

4. Students will be able to evaluate and judge the similarities and differences between inequalities, equations, and expressions (evaluation).

Subunit Four: Linear Equations

1. Students will be able to translate pattern data into tables, graphs, written form, and symbolic form (comprehension).

2. Students will be able to construct the forms of linear equations to match lab data (application).

3. Students will be able design a lab that would result in the collection of linear data (synthesis).

4. Students will be able to evaluate and judge the similarities and differences between linear equations, inequalities, equations, and expressions (evaluation).

Subunit Five: Linear Inequalities

1. Students will apply their knowledge of linear equations to solve and graph linear inequalities (application).

2. Student will be able to identify solutions that make an inequality true or false (comprehension).

3. Students will be able to interpret when exact answers are needed or when a range is appropriate for given application problems (evaluation).