# Student Learning Report: Grade 7 Math

Name _____

Process
Content
Process

## Rational Number Representations and Operations

| Process: Tools to Know | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Applying Math in Everyday Situations | ☐ I can determine what math I need to use to solve a problem. 7.1(A) | | | | |
| Using Problem Solving Models | ☐ I can use a problem-solving model to solve a problem. 7.1(B) | | | | |

| Content | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Representation of Rational Numbers | ☐ I can explain the difference between whole numbers, integers, and rational numbers, using a graphic organizer. 7.2(A) | | | | |
| Operations of Rational Numbers | ☐ I can solve problems involving +/–/x/÷ with whole numbers, decimals, percents, and fractions. 7.3(B) | | | | |
| | ☐ I can add, subtract, multiply, and divide rational numbers quickly and accurately. 7.3(A) | | | | |

| Process: Ways to Show | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Creating/Using Representations | ☐ I can create a representation of my math solution and explain it to another person. 7.1(E) | | | | |
| Analyzing Information | ☐ I can describe and connect math ideas. 7.1(F) | | | | |

## Proportional Reasoning

| Process: Tools to Know | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Applying Math in Everyday Situations | ☐ I can determine what math I need to use to solve a problem. 7.1(A) | | | | |
| Using Problem Solving Models | ☐ I can use a problem-solving model to solve a problem. 7.1(B) | | | | |

| Content | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Constant Rate of Change | ☐ I can determine the constant rate of change from numbers in a real-world problem. 7.4(A) | | | | |
| | ☐ I can determine the constant rate of change from numbers shown in a table. 7.4(A) | | | | |
| | ☐ I can determine the constant rate of change from numbers shown in a graph. 7.4(A) | | | | |
| | ☐ I can determine the constant rate of change from numbers shown in an equation. 7.4(A) | | | | |
| | ☐ I can represent a problem as a proportion and calculate unit rates. 7.4(B) | | | | |
| | ☐ I can represent a problem using $k = \frac{y}{x}$ and calculate the constant of proportionality. 7.4(C) | | | | |
| Conversions | ☐ I can use a proportion to convert measurements. 7.4(E) | | | | |
| Ratios/Rates/ Percentages | ☐ I can solve problems that involve ratios and rates. 7.4(D) | | | | |
| | ☐ I can solve problems that involve percents. 7.4(D) | | | | |
| | ☐ I can solve problems that involve percent increase and decrease. 7.4(D) | | | | |
| Conceptual Development of Non-Proportional Reasoning | ☐ I can represent linear relationships using tables. 7.7(A) | | | | |
| | ☐ I can represent linear relationships using graphs. 7.7(A) | | | | |
| | ☐ I can represent linear relationships using equations. 7.7(A) | | | | |

| Process: Ways to Show | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Creating/Using Representations | ☐ I can create a representation of my math solution and explain it to another person. 7.1(E) | | | | |
| Analyzing Information | ☐ I can describe and connect math ideas. 7.1(F) | | | | |

Process Content Process

## Probability

| Process: Tools to Know | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Applying Math in Everyday Situations | ☐ I can determine what math I need to use to solve a problem. 7.1(A) | | | | |
| Using Problem Solving Models | ☐ I can use a problem-solving model to solve a problem. 7.1(B) | | | | |

| Content | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Representation of Probability | ☐ I can list or describe all the possible outcomes for an experiment or event. 7.6(A) | | | | |
| | ☐ I can create an experiment to represent a simple or compound event. 7.6(B) | | | | |
| Determination of Probability | ☐ I can determine the probability of a simple event. 7.6(I) | | | | |
| | ☐ I can determine probability of a compound event. 7.6(I) | | | | |
| | ☐ I can use proportions to determine the theoretical probability of an event occurring and not occurring. 7.6(E) | | | | |
| Application of Probability | ☐ I can use phrases such as “more likely,” “less likely,” or “equally likely” to describe outcomes from simple experiments. 7.6(H) | | | | |
| | ☐ I can use proportions to make a prediction based on experimental or theoretical probability. 7.6(C), 7.6(D) | | | | |
| | ☐ I can explain the difference between a *population* and a *random sample* from that population. 7.6(F) | | | | |

| Process: Ways to Show | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Creating/Using Representations | ☐ I can create a representation of my math solution and explain it to another person. 7.1(E) | | | | |
| Analyzing Information | ☐ I can describe and connect math ideas. 7.1(F) | | | | |

Process
Content
Process

## Equations and Inequalities

| Process: Tools to Know | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Applying Math in Everyday Situations | ☐ I can determine what math I need to use to solve a problem. 7.1(A) | | | | |
| Using Problem Solving Models | ☐ I can use a problem-solving model to solve a problem. 7.1(B) | | | | |

| Content | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Representation and Solutions of Equations/ Inequalities | ☐ I can solve two-step equations. 7.11(A) | | | | |
| | ☐ I can solve two-step inequalities. 7.11(A) | | | | |
| | ☐ I can use a number line to represent solutions to an equation or inequality. 7.10(B) | | | | |
| | ☐ I can check to see if a number makes an equation or an inequality true. 7.11(B) | | | | |
| Application of Equations/ Inequalities | ☐ I can write an equation to represent a word problem. 7.10(A) | | | | |
| | ☐ I can write an inequality to represent a word problem. 7.10(A) | | | | |
| | ☐ I can write a real-world situation for an equation. 7.10(C) | | | | |
| | ☐ I can write a real-world situation for an inequality. 7.10(C) | | | | |
| | ☐ I can write equations and solve equations to find missing angle measures in a triangle. 7.11(C) | | | | |

| Process: Ways to Show | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Creating/Using Representations | ☐ I can create a representation of my math solution and explain it to another person. 7.1(E) | | | | |
| Analyzing Information | ☐ I can describe and connect math ideas. 7.1(F) | | | | |

## Geometry and Measurement

| Process: Tools to Know | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Applying Math in Everyday Situations | ☐ I can determine what math I need to use to solve a problem. 7.1(A) | | | | |
| Using Problem Solving Models | ☐ I can use a problem-solving model to solve a problem. 7.1(B) | | | | |

| Content | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Angle Relationships | ☐ I can write and solve equations for missing angle measures in a triangle. 7.11(C) | | | | |
| Similarity | ☐ I can use proportions to find unknown measures in similar shapes. 7.5(C) | | | | |
| | ☐ I can write proportions to relate the corresponding sides of similar figures. 7.5(A) | | | | |
| Conversions | ☐ I can use a proportion to convert measurements. 7.4(E) | | | | |
| Area | ☐ I can break a figure into smaller shapes in order to find its area. 7.9(C) | | | | |
| | ☐ I can find the lateral and total surface area of prisms and pyramids by determining the area of the shape's net. 7.9(D) | | | | |
| Circles | ☐ I can calculate the circumference and area of a circle. 7.9(B) | | | | |
| | ☐ I can explain how the number pi (π) is related to a circle's diameter and circumference. 7.5(B) | | | | |
| | ☐ I can estimate the circumference of a circle based on its diameter. 7.8(C) | | | | |
| | ☐ I can estimate the area of a circle based on its radius (and the square of its radius). 7.8(C) | | | | |
| Volume | ☐ I can identify the height (*h*) and base area (*B*) of a prism or a pyramid to solve volume problems. 7.9(A) | | | | |
| | ☐ I can explain that a prism has 3 times the volume of a pyramid with the same base and height. 7.8(A) | | | | |
| | ☐ I can explain the similarities and differences between the formulas for the volume of a pyramid and the volume of a prism. 7.8(A), 7.8(B) | | | | |

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|---|---|---|---|---|---|
| Creating/Using Representations | ☐ I can create a representation of my math solution and explain it to another person. 7.1(E) | | | | |
| Analyzing Information | ☐ I can describe and connect math ideas. 7.1(F) | | | | |

Process
Content
Process

## Data Analysis

| Process: Tools to Know | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Applying Math in Everyday Situations | ☐ I can determine what math I need to use to solve a problem. 7.1(A) | | | | |
| Using Problem Solving Models | ☐ I can use a problem-solving model to solve a problem. 7.1(B) | | | | |

| Content | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Interpretation of Data | ☐ I can solve percentage problems by using information represented on a bar graph. 7.6(G) | | | | |
| | ☐ I can solve percentage problems by using information represented on a dot plot. 7.6(G) | | | | |
| | ☐ I can solve percentage problems using information represented on a circle graph. 7.6(G) | | | | |
| | ☐ I can explain the difference between a *population* and a *random sample* from that population. 7.12(B) | | | | |
| Comparison of Data | ☐ I can compare the shape, center, and spread of two groups of data represented in a dot plot. 7.12(A) | | | | |
| | ☐ I can compare the shape, center, and spread of two groups of data represented in a box plot. 7.12(A) | | | | |
| | ☐ I can use data from random samples to compare two populations. 7.12(C) | | | | |

| Process: Ways to Show | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Creating/Using Representations | ☐ I can create a representation of my math solution and explain it to another person. 7.1(E) | | | | |
| Analyzing Information | ☐ I can describe and connect math ideas. 7.1(F) | | | | |

Process
Content
Process

## Personal Financial Literacy

| Process: Tools to Know | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Applying Math in Everyday Situations | ☐ I can determine what math I need to use to solve a problem. 7.1(A) | | | | |
| Using Problem Solving Models | ☐ I can use a problem-solving model to solve a problem. 7.1(B) | | | | |

| Content | | Notes | Check Up | | |
|---|---|---|---|---|---|
| Budgets | ☐ I can identify the different parts of a personal budget. 7.13(B) | | | | |
| | ☐ I can explain the difference between assets and liabilities and how each affects net worth. 7.13(C) | | | | |
| Calculations | ☐ I can use percents to calculate sales tax and income tax. 7.13(A) | | | | |
| | ☐ I can use percents to determine the parts that make up the whole of a budget. 7.13(B) | | | | |
| | ☐ I can estimate the amount of monthly income and hourly wages it takes to meet a family's basic needs. 7.13(D) | | | | |
| | ☐ I can calculate and compare simple and compound interest. 7.13(E) | | | | |
| | ☐ I can compare sales, rebates, and coupons to see which offers a better deal. 7.13(F) | | | | |

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|---|---|---|---|---|---|
| Creating/Using Representations | ☐ I can create a representation of my math solution and explain it to another person. 7.1(E) | | | | |
| Analyzing Information | ☐ I can describe and connect math ideas. 7.1(F) | | | | |