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STAGE 1 – DESIRED RESULTS	
<p>Unit Title: Fractions</p> <p>Established Goals (big ideas): – include BC curriculum citation</p> <p>- Mixed numbers and decimal numbers represent quantities that can be decomposed into parts and wholes</p> <p>BC's New Curriculum. (2016). Mathematics 6 Building Student Success - BC's New Curriculum. Retrieved from https://curriculum.gov.bc.ca/curriculum/mathematics/6</p>	
<p>Rationale <i>Why are you doing this and why is it relevant to your students</i></p> <p>Students will learn or broaden their knowledge on Fractions, Percent's, Ratios, and Rates throughout this unit. The learning that takes place in this unit will be transferable to the 'real world', where students will be able to bring their knowledge gained from this unit into life skills such as cooking, measuring, understanding the value of fractions and percentages, etc.</p>	
<p>Essential Question(s): (<i>What drives the learning?</i>)</p> <p>What are the connections between fractions, mixed numbers, and decimal numbers? How can I turn a fraction into a decimal? And then into a percent? What is a mixed number? What can I express quantities in fractions, mixed numbers, decimals, percentages, ratios, and rates?</p>	
<p>Students will be able to: (<i>competencies – include BC curriculum citation</i>)</p> <ul style="list-style-type: none"> - Model mathematics in contextualized experiences - Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving - Use mathematical vocabulary and language to contribute to mathematical discussions - Represent mathematical ideas in concrete, pictorial, and symbolic forms - Connect mathematical concepts to each other and to other areas and personal interests <p>BC's New Curriculum. (2016). Mathematics 6 Building Student Success - BC's New Curriculum. Retrieved from https://curriculum.gov.bc.ca/curriculum/mathematics/6</p>	<p>Students will know; (<i>content– include BC curriculum citation</i>)</p> <ul style="list-style-type: none"> - Factors and multiples — greatest common factor and least common multiple - Improper fractions and mixed numbers - Introduction to ratios <p>BC's New Curriculum. (2016). Mathematics 6 Building Student Success - BC's New Curriculum. Retrieved from https://curriculum.gov.bc.ca/curriculum/mathematics/6</p>

STAGE 2 – ASSESSMENT EVIDENCE	
<p>Performance Tasks and/or culminating tasks:</p> <ul style="list-style-type: none"> - <i>Problem of the Day</i> – Each lesson - <i>Weekly Quiz (end of the week)</i> – on the content learned during the week - <i>Homework from Textbook</i> (each lesson) - <i>Unit Test</i> 	<p>Other Evidence: formative and summative</p> <p><u>Formative</u></p> <p>Students will experience formative assessment over the unit through the <i>Problem of the Day</i> & additional work done through the textbook. The <i>Problem of the Day</i> is meant to spark the students' brains and get them thinking mathematically. This will be formatively assessed as I rotate around the room and make sure each student is participating and trying to find the solution to the problem.</p> <p>For the <i>Homework from Textbook</i>, students will be tasked with completing this homework and handing it in to me once completed – I will then mark the homework, and give it back to students to make any changes or adjustments to their work if needed. This marking is done so that I can see which content the students are grasping onto, and what might need more attention. I believe that repetition is key to learning mathematical concepts; this is why students will be tasked with short amounts of work from the text after the</p>

	<p>instruction of each lesson, followed by a quiz at the end of the week. This amount of work may sound overwhelming, but my goal is for the students to have enough class time to finish their math at school. In order to accomplish this goal, I won't be assigning complete pages of work; instead, only portions of the page (i.e. only relevant questions, odds or evens, etc.).</p> <p><u>Summative</u></p> <p>Students will be assessed on their <i>Weekly Quizzes</i> and their <i>Unit Test</i> at the end of the five-week unit. The quizzes are implemented to support students learning by making sure that they are consistently reviewing the content and preparing each week. Students will be given a set of sample questions to study from, in which only a fraction of these questions will be picked for the quizzes. I believe that this will help students fully prepare for the testing, and hopefully avoid test anxiety. The quizzes will be handed back to the students so that they can see any corrections they may need to make – these quizzes further allow me to assess which content is being understood, and which students need additional support in their learning.</p> <p>The <i>Unit Test</i> will be our 'celebration of learning' at the end of this unit – students will be prepped with sample questions before the test and provided with in-class study time where I will be available to help the students with any of the content. I will assess these tests by marking them – students will then be graded on a scale: 1 – Emerging, 2 – Developing, 3 – Acquired, 4 – Accomplished. Students' place on this scale will depend on their success in demonstrating their learning through this unit test.</p>
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STAGE 3 – LEARNING PLAN	
Learning intentions	Learning activities
<p>Lesson 1</p> <ul style="list-style-type: none"> - Students will be able to answer the <i>Problem of the Day</i> successfully - Students will be able to demonstrate what an equivalent fraction looks like - Students will be able to write a fraction and show it's equivalent – according to information provided (i.e. <i>45 min as a fraction of one hour – 45/60 or 9/12 or 3/4</i>) 	<p>Lesson 1</p> <ul style="list-style-type: none"> - <i>Problem of the Day</i> - Instruction on <i>Equivalent Fractions – Equivalent Fraction Bingo</i> - Page 279-280 #1(odds), 3(odds), 4(odds), 5, 6, 7(odds), 9(odds), 10(odds)
<p>Lesson 2</p> <ul style="list-style-type: none"> - Students will be able to answer the <i>Problem of the Day</i> (content from previous lesson) successfully - Students will be able to demonstrate what mixed numbers and improper fractions are 	<p>Lesson 2</p> <ul style="list-style-type: none"> - <i>Problem of the Day</i> - Instruction on <i>Mixed Numbers & Improper Fractions (visual diagrams on whiteboard)</i> - Page 283 #1(odds), 2(odds), 3(odds), 4(odds), 6
<p>Lesson 3</p> <ul style="list-style-type: none"> - Students will demonstrate participation and a willingness to understand the content in preparation for the quiz - Students will demonstrate their knowledge of the content through writing a quiz on Lesson 1 & 2 	<p>Lesson 3</p> <ul style="list-style-type: none"> - Study time – students prep for the quiz, work on questions from the text that were given out over the past two lessons, ask questions if they have any - <i>Weekly Quiz 1</i>
<p>Lesson 4</p> <ul style="list-style-type: none"> - Students will be able to answer the <i>Problem of the Day</i> successfully 	<p>Lesson 4</p> <ul style="list-style-type: none"> - <i>Problem of the Day</i> - Instruction on <i>Comparing and Ordering Mixed Numbers</i>

- Students will be able to compare and order mixed numbers and fractions	<i>and Fractions – Number Lines</i> - Page 286-287 #1(odds), 2, 4(odds), 5(odds), 7, 9, 11
Lesson 5 - Students will be able to answer the <i>Problem of the Day</i> successfully - Students will be able to convert fractions into decimals and percentages	Lesson 5 - <i>Problem of the Day</i> - Instruction on <i>Exploring Percentages – Minecraft Art</i> - Page 292-293 #1(odds), 5(odds), 8(odds), 9(odds), 10, 11(odds)
Lesson 6 - Students will demonstrate participation and a willingness to understand the content in preparation for the quiz - Students will demonstrate their knowledge of the content through writing a quiz on Lesson 4 & 5	Lesson 6 - Study time – students prep for the quiz, work on questions from the text that were given out over the past two lessons, ask questions if they have any - <i>Weekly Quiz 2</i>
Lesson 7 - Students will be able to answer the <i>Problem of the Day</i> successfully - Students will be able to relate fractions with decimals and percentages	Lesson 7 - <i>Problem of the Day</i> - Instruction on <i>Relating Fractions, Decimals, and Percentages – Math Manipulatives (coloured tiles)</i> - Page 296-297 #1(odds), 2(odds), 3(odds), 5(odds), 8(all), 10
Lesson 8 - Students will be able to answer the <i>Problem of the Day</i> successfully - Students will be able to demonstrate their understanding of ratios in math – and compare ratios to fractions	Lesson 8 - <i>Problem of the Day</i> - Instruction on <i>Exploring Ratios – Boys to Girls Ratios in class example</i> - Page 304-305 #1(odds), 2(odds), 4(odds), 5(odds), 8(odds), 10
Lesson 9 - Students will demonstrate participation and a willingness to understand the content in preparation for the quiz - Students will demonstrate their knowledge of the content through writing a quiz on Lesson 7 & 8	Lesson 9 - Study time – students prep for quiz, work on questions from the text that were give out over the past two lessons, ask questions if they have any - <i>Weekly Quiz 3</i>
Lesson 10 - Students will be able to answer the <i>Problem of the Day</i> successfully - Students will be able to demonstrate their understanding of equivalent ratios	Lesson 10 - <i>Problem of the Day</i> - Instruction on <i>Equivalent Ratios – Math Manipulatives (coloured tiles)</i> - Page 308-309 #1(odds), 2(odds), 3(odds), 6, 8(all), 9, 11
Lesson 11 - Students will be able to answer the <i>Problem of the Day</i> successfully - Students will be able to demonstrate their understanding of exploring rates in math, and their relation to fractions	Lesson 11 - <i>Problem of the Day</i> - Instruction on <i>Exploring Rates – Using Tables</i> - Page 312-313 #1(odds), 2, 3, 4, 6, 8(odds), 10(all)
Lesson 12 - Students will demonstrate participation and a willingness to understand the content in preparation for the quiz - Students will demonstrate their knowledge of the content through writing a quiz on Lesson 10 & 11	Lesson 12 - Study time – students prep for quiz, work on questions from the text that were given out over the past two lessons, ask questions if they have any - <i>Weekly Quiz 4</i>
Lessons 13 & 14 - Students will ask questions about the content learned over this unit – in preparation for the Unit Test - In the case of one of the previous lessons taking longer to cover, lessons 13 & 14 could be used as a “catch up” day if we fell behind at all	Lessons 13 & 14 - Work/study time – prep for unit tests by working on past homework from the text, working in groups, asking questions - Students may be prepped with a practice test – containing similar content that will be on the <i>Unit Test</i>

Lesson 15 - Students will demonstrate their learning from this unit through a 'celebration of learning' unit test	Lesson 15 - <i>Unit Test</i>
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Reflections:**Resources**

Pearson Education Canada. (2006). Fractions, Percents, Ratios, and Rates. In *Math Makes Sense 6* (pp. 276-320). Claire Burnett.

Source: Understanding by Design, Unit Design Planning Template (Wiggins/McTighe 2005)