



## Student Progress Through Arts Resources and Knowledge (SPARK) Curriculum Map Template

### GRADE 5

<b>Topic : Numbers &amp; Operations-Fractions</b>	<b>Number of Instructional Minutes/Hours/Days: 5 Days</b>
<p><b>Topic Description:</b> Unit will explore dividing and interpreting whole numbers by a unit fraction. Students will use visual fraction models to show quotients and create drawings to solve fraction problems. At the end of this unit, students will demonstrate their understanding of key concepts such as: <i>unit fraction</i>, <i>dividend</i>, <i>divisor</i>, <i>quotient</i>, and <i>whole number</i> by designing a game and entertainment center for their community. Students will be expected to: research game and entertainment centers in Chicago/Illinois, determine the types of games and other interactive activities to be included in the space that may best interest the members of their community, divide a designated amount of space into smaller units by a unit fraction, use visual fraction models to create a floor plan that maps out the various sections for the designed game and entertainment center, write a pitch statement for the floor plan designed, and present their pitch of the floor plan design to community members.</p>	
<p><b>Learner Standards</b></p> <p>(1)</p> <p><i>What are the standards? For subject area? For the art discipline to be explored?</i></p>	
<p><b><u>COMMON CORE STATE STANDARDS MATHEMATICS</u></b></p> <ul style="list-style-type: none"> <li>● CCSS.MATH.CONTENT.5.NF.B.7: Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.<sup>1</sup></li> </ul>	

- CCSS.MATH.CONTENT.5.NF.B.7.B: Interpret division of a whole number by a unit fraction, and compute such quotients. *For example, create a story context for  $4 \div (1/5)$ , and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that  $4 \div (1/5) = 20$  because  $20 \times (1/5) = 4$ .*
- CCSS.MATH.PRACTICE.MP1 Make sense of problems and persevere in solving them.
- CCSS.MATH.PRACTICE.MP2: Reason abstractly and quantitatively.

**COMMON CORE STATE STANDARDS LITERACY**

- CCSS.ELA-LITERACY.RI.5.7: Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
- CCSS.ELA-LITERACY.RI.5.9: Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably.
- CCSS.ELA-LITERACY.W.5.2: Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- CCSS.ELA-LITERACY.W.5.7: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
- CCSS.ELA-LITERACY.SL.5.4  
Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

**ILLINOIS ARTS LEARNING STANDARDS FOR VISUAL ARTS**

- 5th VA:Cr1.1.5: a. Combine ideas to generate an innovative idea for art making.

<b>Learner Outcome(s)</b>  <i>(2)</i> <i>Knowledge, skills, and abilities that a student has attained at the end of engaging in this session.</i>	<b>Conceptual Understanding(s)</b>  <i>Idea(s) that are at the core of the subject and may require inquiry.</i>	<b>Guiding Question(s)</b>  <i>What questions will help students to get to the core of the subject?</i>	<b>Content Focus</b>  <i>List of key concepts that learners will understand by the end of this lesson.</i>	<b>Skill(s)</b>  <i>(4)</i> <i>Set of knowledge, skills, habits of mind, or character traits that need to be introduced, taught, practiced, and reinforced to maximize learning success.</i>	<b>Assessment Product(s)</b>  <i>(3)</i> <i>What will the students have to know and do to demonstrate mastery of learning objectives/standards?</i>
end of this session learners will be able to:	Learners will understand:	1. What are whole numbers?	Key Vocabulary: <ul style="list-style-type: none"> <li>● Unit fraction,</li> <li>● Dividend</li> </ul>	Learners will be able to:	At the end of this unit learners will:

<p>1. Divide a whole number by a unit fraction.</p> <p>2. Interpret division of a whole number by a unit fraction</p> <p>3. Use a visual fraction model to show the quotient.</p> <p>4. Solve real world problems by using visual fraction models and equations to represent the problem.</p> <p>Write a pitch statement for the floor plan designed. Pitch floor plan design to a community selection committee.</p> <p>Write a pitch statement for the floor plan designed to a community selection committee.</p>	<ul style="list-style-type: none"> <li>● Whole numbers can be divided by unit fractions.</li> <li>● How many groups of a given fractional size will fit into the number of wholes given.</li> <li>● Pictures can be used develop a concrete and conceptual understanding of dividing whole numbers by unit fractions.</li> </ul>	<p>2. What are fractions?</p> <p>3. What is a unit fraction?</p> <p>3. How can a whole number be divided by a unit fraction?</p> <p>4. How can visual fraction models be used to represent math problems?</p>	<ul style="list-style-type: none"> <li>● Divisor</li> <li>● Quotient</li> <li>● Whole number</li> </ul>	<ol style="list-style-type: none"> <li>1. Solve problems using pictures.</li> <li>2. Split a unit whole into smaller pieces/parts.</li> <li>3. Create pictures to solve problems dealing with fractions.</li> <li>4. Write correct equations.</li> <li>5. Solve equations.</li> <li>6. Draw pictures to show how they got their answer.</li> <li>7. Write story problems to go with student created pictures.</li> <li>8. Conduct research on features of game and entertainment centers in Chicago/Illinois.</li> <li>9. Write to convey ideas about the features of the game and entertainment center designed.</li> <li>10. Present a pitch for the floor plan</li> </ol>	<p>an interactive family game and entertainment center for a neighborhood:</p> <ul style="list-style-type: none"> <li>● Research game and entertainment centers in Chicago/Illinois.</li> <li>● Determine the types of games and other interactive activities to be included in the space that may best interests the members of the community.</li> <li>● Divide a designated amount of space into smaller units by a unit fraction.</li> <li>● Use visual fraction models to create a floor plan that maps out the various sections for the designed game and entertainment center.</li> <li>● Write a pitch statement for the floor plan</li> </ul>
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**Resources**

*What instructional resources can be used for teacher and/or student?*

- 10 Best Game and Entertainment Centers in Chicago: [https://www.tripadvisor.com/Attractions-g35805-Activities-c56-t110-Chicago\\_Illinois.html](https://www.tripadvisor.com/Attractions-g35805-Activities-c56-t110-Chicago_Illinois.html)
- How To Write An Effective Pitch Letter: <https://www.elirose.com/2011/07/pitch-letter/?cn-reloaded=1>
- 5 Ways to Successfully Pitch Ideas to Clients and Investors: <http://creativeoverflow.net/5-ways-to-successfully-pitch-ideas-to-clients-investors/>
- Lesson Plan: Divide a whole number by a unit fraction by drawing a picture: [https://learnzillion.com/lesson\\_plans/233-divide-a-whole-number-by-a-unit-fraction-by-drawing-a-picture/lesson](https://learnzillion.com/lesson_plans/233-divide-a-whole-number-by-a-unit-fraction-by-drawing-a-picture/lesson)