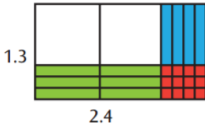


Major Learning Targets for This Grade

Fractions			
Students will use equivalent fractions to add and subtract fraction; extend multiplication and division of whole numbers to multiply and divide fractions.			
"I can fluently add and subtract fractions."	"I can multiply fractions."	"I can divide whole numbers by unit fractions."	"I can divide unit fractions by whole numbers."
Example Task: Four students sitting at a table were given $\frac{1}{3}$ of a pan of cornbread to share equally. What fraction of the whole pan of cornbread will each student get if they share the remaining cornbread equally? Sample Solution: <i>Solution:</i> The diagram shows the $\frac{1}{3}$ of a pan of cornbread divided into four equal shares. When replicated to fill out the entire pan, it becomes clear that each piece is $\frac{1}{12}$ of an entire pan. (If the $\frac{1}{3}$-sized pieces are each divided into 4 equal pieces, this makes a total of 12 equal pieces of the original whole.) 			

Decimals			
Students will add, subtract, multiply and divide decimals.			
"I can solve word problems involving addition and subtraction of decimals."	"I can rename fractions to decimal numbers."	"I can multiply decimals using strategies."	"I can divide any number by a two-digit number, which may lead to a decimal answer."
Example Task: Use an area model to multiply decimals. Show that $2.4 \times 1.3 = 3.12$ Possible Solution:  $\begin{array}{r} 2.4 \\ \times 1.3 \\ \hline .12 \\ .60 \\ + 2.00 \\ \hline 3.12 \end{array}$			

Volume																	
Students will understand the concept of volume and relate these to multiplication and division.																	
"I can pack prisms using cubes without gaps or overlaps to find the total number of cubes used."	"I can describe volume as layering areas on top of each other."	"I can find the volume of irregular prisms by breaking them up into smaller prisms and add the smaller volumes together."															
Example Task: You have 24 "unit" cubes, make as many rectangular prisms as possible and record the dimensions as you build. <table border="1" data-bbox="958 1837 1485 1963"> <thead> <tr> <th>Length</th><th>Width</th><th>Height</th></tr> </thead> <tbody> <tr> <td>1</td><td>2</td><td>12</td></tr> <tr> <td>2</td><td>2</td><td>6</td></tr> <tr> <td>4</td><td>2</td><td>3</td></tr> <tr> <td>8</td><td>3</td><td>1</td></tr> </tbody> </table>			Length	Width	Height	1	2	12	2	2	6	4	2	3	8	3	1
Length	Width	Height															
1	2	12															
2	2	6															
4	2	3															
8	3	1															

Expected Behaviors in Math Class

Students will...

- Make predictions and estimations
- Decide if their answer is reasonable
- Use examples and counterexamples to justify a conclusion
- Explain their thinking and their process to solving a problem
- Apply mathematics to solve problems in everyday life
- Consider available tools to help them solve problems (including hands-on tools and technology)
- Use technology to explore and deepen their understanding
- Communicate ideas clearly verbally and in writing, using math vocabulary when appropriate
- Look for patterns and shortcuts

How Can I Support My Student in This Course?

1. Ask Questions

- When your student is stuck, ask him/her questions like:
 - “How do you know?”
 - “Have you seen a similar problem like this before?”
 - “Does your answer make sense?”
 - “What is the problem asking you?”
 - “What information do you need to solve this question?”

2. Encourage Your Student to Ask Questions

- You don’t need to be able to answer every question that students may come up with; encourage your student to write down his/her question to bring to a teacher or peer the next day

3. Ask Your Student to Draw the Math Problem

- All mathematics can be represented visually; visual representations help students understand the concepts
- Encourage color coding

4. Encourage Multiple Representations of the Problem

- Ask your student to solve the problem in a different way, and to make connections between the different representations

5. Value Mistakes

- Students are learning when they are making mistakes; create an environment where your student feels comfortable making a mistake and learning from it

6. Don’t Simply Tell Them the Right Answer

- Once students are aware that their answer is right, they are more likely to stop thinking about the math
- Instead of telling them the right answer, ask them a question (see #1) or have them draw a picture

7. Praise Effort

- When your student gets a right answer, acknowledge how hard they must have worked and practiced
- When your student is stuck, acknowledge that sometimes math is challenging and that if they continue to practice and work hard, they will improve

For more information, visit scusd.edu/math or contact Mikila-Fetzer@scusd.edu, Math Coordinator

SCUSD’s Vision for Instruction and Assessment: *As a community of learners, we strive to create positive and engaging environments where a rigorous, student-centered curriculum is central. Teachers use inquiry-based instruction and formative assessment practices to support ALL learners in maturing socially and in becoming disciplinary thinkers.*