

“Unwrapping” the Standards

1. Choose a course priority standard for the “unwrapping process”.
2. Skills: Circle the verbs – what *students* need to do.
3. Concepts: Underline nouns and noun phrases that represent *teachable concepts*.
4. Compose Big Idea statements

Content Area: Math

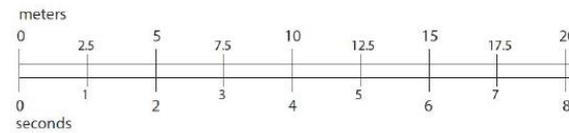
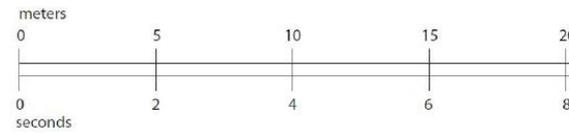
Grade Level: 6th

Standard: 6.RP.3b

<p>Domain: Ratio and Proportional Reasoning (RP)</p> <p>Cluster: Understand ratio concepts and use ratio reasoning to solve problems</p> <p>Standard: 6.RP.3 – Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. (DOK 1,2)</p> <p style="padding-left: 40px;">b. Solve unit rate problems including those involving unit pricing and constant speed. <i>For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?</i></p>																														
1. Skills (verbs)	2. Key Concepts (nouns)	3. Additional Clarifications / Examples																												
Students need to be able to do.....	Students need to know.....																													
<p>Use</p> <p>Solve</p> <p>Reasoning</p> <p>Solve</p>	<p>ratio and rate reasoning</p> <p>real-world and mathematical problems</p> <p>about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations</p> <p>unit rate problems including those that involve unit pricing and constant speed</p>	<p>No cross-products – not a strategy that calls for students to reason and think proportionally.</p> <p>Tables of Equivalent Ratios:</p> <p style="padding-left: 20px;">If 2 pounds of beans cost \$5, how much will 15 pounds of beans cost?</p> <p>Method 1</p> <table border="1" style="margin-left: 20px; border-collapse: collapse; text-align: center;"> <tr> <td>pounds</td><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td><td>12</td><td>14</td><td>1</td><td>15</td> </tr> <tr> <td>dollars</td><td>5</td><td>10</td><td>15</td><td>20</td><td>25</td><td>30</td><td>35</td><td>2.50</td><td>37.50</td> </tr> </table> <p style="padding-left: 20px;">“I found 14 pounds costs \$35 and then 1 more pound is another \$2.50, so that makes \$37.50 in all.”</p> <p>Tape Diagram:</p> <p>Garrett buys 8 bracelets for \$12.00. How much is one bracelet? 5 bracelets?</p> <table border="1" style="margin-left: 20px; border-collapse: collapse; text-align: center;"> <tr> <td>\$1.50</td><td>\$1.50</td><td>\$1.50</td><td>\$1.50</td><td>\$1.50</td><td>\$1.50</td><td>\$1.50</td><td>\$1.50</td> </tr> </table> <p style="margin-left: 20px;">$12 \div 8 = 1.5$</p> <p style="margin-left: 20px;">1 bracelet costs \$1.50 5 bracelets cost \$7.50</p>	pounds	2	4	6	8	10	12	14	1	15	dollars	5	10	15	20	25	30	35	2.50	37.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50	\$1.50
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Double Number Line Diagrams:

Erin walks 5 meters every two seconds. How far does she walk in one second? 7 seconds?



$$5 \div 2 = 2.5$$

2.5 meters in one second

$$2.5 \times 7 = 17.5$$

17.5 meters in seven seconds

4. Big Idea(s) in student language

Students will be able to solve unit rate problems using multiple representations within the context of real-world and mathematical problems.