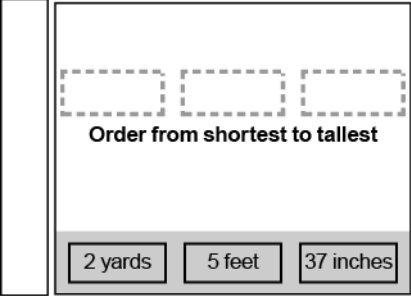


| | | |
|--------------------------------|--|--|
| Content Standard | <p>MAFS.4.MD Measurement and Data</p> <p>MAFS.4.MD.1 Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.</p> <p>MAFS.4.MD.1.1 Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. <i>For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...</i></p> | |
| Assessment Limits | <p>Measurement units are within a single system. Measurement conversions are from larger units to smaller units. Multiplication is limited to 4-digit numbers by 1-digit numbers and two 2-digit numbers (MAFS.4.NBT.B.5). Units of measurement include: kilometer, meter, centimeter, millimeter, liter, milliliter, kilogram, gram, milligram, mile, yard, foot, inch, gallon, quart, pint, cup, ton, pound, and ounce.</p> | |
| Calculator | No | |
| Acceptable Response Mechanisms | <p>Equation Response Graphic Response – Drag and Drop Matching Response Multiple Choice Response Multi-Select Response Table Response</p> | |
| Context | Allowable | |
| Example | | |
| Context | Use the dimensions and mass of containers to solve problems (can include non-adjacent units that are separated by 1 other unit. For example, yard to inches). Student selects two measures. | |
| Context easier | <p>One measurement is given. Limit multiplication to 1- and 2-digit numbers. Limit conversions to adjacent units (i.e., feet to inches). Student selects one measure.</p> | |
| Context more difficult | <p>No measurements given. Increase the number of digits in multiplication to include 3-digit numbers. Conversions of non-adjacent units that are separated by two or more (i.e., gallons to cups). Student selects three measures.</p> | |

Grade 4 Mathematics Item Specifications
Florida Standards Assessments

| Sample Item Stem | Response Mechanism | Notes, Comments | | | | | | | | | |
|---|----------------------------------|-----------------|------|-------------|----|--|-------------|--|---|----------------|--|
| <p>Select all the objects that are close to an inch long.</p> <ul style="list-style-type: none"> <input type="radio"/> A textbook <input type="radio"/> A paperclip <input type="radio"/> A new pencil <input type="radio"/> A 25-cent coin <input type="radio"/> A telephone | Multi-Select Response | | | | | | | | | | |
| <p>Select all the measurements that are close to a yard.</p> <ul style="list-style-type: none"> <input type="radio"/> The length of a student’s desk <input type="radio"/> The height of a classroom <input type="radio"/> The width of a classroom door <input type="radio"/> The length of a movie ticket <input type="radio"/> The height of a building | Multi-Select Response | | | | | | | | | | |
| <p>A table is shown.</p> <table border="1" data-bbox="191 873 544 989"> <thead> <tr> <th></th> <th>Inches</th> <th>Feet</th> </tr> </thead> <tbody> <tr> <td>Container 1</td> <td>24</td> <td></td> </tr> <tr> <td>Container 2</td> <td></td> <td>3</td> </tr> </tbody> </table> <p>Complete the table to show the missing dimensions.</p> | | Inches | Feet | Container 1 | 24 | | Container 2 | | 3 | Table Response | |
| | Inches | Feet | | | | | | | | | |
| Container 1 | 24 | | | | | | | | | | |
| Container 2 | | 3 | | | | | | | | | |
| <p>The heights of three boxes are shown. Drag one measurement into each box to order the boxes from shortest to tallest.</p>  | Graphic Response – Drag and Drop | | | | | | | | | | |