

## Mathematics Materials/Manipulatives Collections 2015- 2016

Mathematics testlets sometimes call for the use of specific materials or manipulatives. Materials are identified in the Testlet Information Page (TIP) for each testlet. Some materials are required and cannot be substituted, but substitutions are allowed in many cases. For more information about substituting objects, see the *Teacher-Administered Tests* section of the *Test Administration Manual*.

The TIP is not provided until each testlet is assigned. That means the materials needed to assess each student are unknown before the test window opens. Therefore, to give test administrators more opportunity to prepare for the mathematics assessment before the testing window opens, DLM has compiled a list of materials commonly needed in mathematics testlets. The tables in this document summarize lists of items per grade level. Items listed in parentheses means that these examples are specifically mentioned in some of the testlets. Again, objects may often be substituted. If items are substituted, the script in the testlet may need to also include the substitution.

### Hints:

- Find things that already exist in the classroom or are easily found somewhere in the building.
- Pick materials that are familiar to the student.
- Look at the whole list for each grade and find objects that can meet multiple purposes. What types of objects are mentioned more than once?
- Remember that in most cases materials may be substituted as long as they are similar to the ones on the list.

**Example:** for 2 sets of identical objects packaged together (packs of crayons, pencils, markers), the Test Examiner might use two identical packs of flash cards.

This document first covers materials that can be used in **initial precursor level testlets**. At the end of the document, Test Examiners will find materials that can be used in testlets **above the initial precursor level**. For lists of materials commonly used in alternate testlets designed for students with visual impairments, please refer to separate materials collections on your DLM Educator Resource Page.

Grade	Common Materials for Initial Precursor Testlets
Third	<ul style="list-style-type: none"> <li>• 1 set of objects that are recognizable as a whole and in parts (puzzle, pack of gum, etc.)</li> <li>• 1 set of identical objects (crayons, straws, etc.)</li> <li>• 2 different objects (cup and book, pen and checker, etc.)</li> <li>• 2 sets of similar objects varying by only one attribute (thin book and thick book, small sock and large sock, etc.)</li> <li>• 3 similar objects varying by only one attribute (large plastic cup, large paper cup, and small plastic cup, etc.)</li> <li>• 2 sets of 7 objects (7 cups and 7 erasers, etc.)</li> <li>• 2 containers large enough to hold at least 7 objects</li> <li>• 2 sets of identical objects packaged together (packs of crayons, pencils, markers, etc.)</li> <li>• 2 sets of identical objects (2 identical cups and 2 identical spoons, etc.)</li> <li>• Material to bundle objects (string or rubber band, etc.)</li> </ul>



Grade	Common Materials for Initial Precursor Testlets
Fourth	<ul style="list-style-type: none"><li>• 3 similar objects varying by only one attribute (large plastic cup, large paper cup, and small plastic cup, etc.)</li><li>• 2 set of identical objects (2 identical cups, 2 identical pens, etc.)</li><li>• 1 set of 3 items that are entirely different (towel, pencil, and shoe, etc.)</li><li>• 7 objects (checkers, erasers, counters, etc.)</li><li>• 2 sets of objects each varying by 2 distinct attributes, one must be length (2 thin ribbons and 2 wide ribbons all varying in length, etc.)</li><li>• 2 sets of 7 objects (7 cups and 7 erasers, etc.)</li><li>• 2 sets of identical objects packaged together (packs of crayons, pencils, markers, etc.)</li><li>• 2 sets of objects that are recognizable as a whole and in parts (puzzle, pack of gum, etc.)</li><li>• 1 set of 4 objects: 2 identical, 1 similar varying by only 1 distinct attribute and 1 entirely different (2 identical plastic cups, 1 paper cup, and 1 block, etc.)</li><li>• Container large enough to hold 7 objects (box, bowl, basket, etc.)</li><li>• Material to bundle objects (string or rubber band, etc.)</li></ul>
Fifth	<ul style="list-style-type: none"><li>• 2 set of identical objects (2 identical cups, 2 identical pens, etc.)</li><li>• 1 set of 3 items that are entirely different (towel, pen, and shoe, etc.)</li><li>• 3 similar objects varying by only one attribute (large plastic cup, large paper cup, and small plastic cup, etc.)</li><li>• 2 sets of similar objects varying by only one attribute (thin book and thick book, small sock and large sock, etc.)</li><li>• 7 objects (highlighter, pens, counters, etc.)</li><li>• 3 sets of 7 objects (7 counters, 7 cups, and 7 erasers, etc.)</li><li>• 2 sets of identical objects packaged together (packs of crayons, pencils, markers)</li><li>• 2 sets of objects each varying by 2 distinct attributes, one must be length (2 thin ribbons and 2 wide ribbons all varying in length, etc.)</li><li>• 2 containers large enough to hold 7 objects (box, bowl, basket, etc.)</li><li>• Material to bundle objects (string or rubber band, etc.)</li></ul>
Sixth	<ul style="list-style-type: none"><li>• 7 objects</li><li>• 2 sets of identical objects packaged together (packs of crayons, pencils, markers)</li><li>• 2 sets of 7 objects (7 cups and 7 erasers, etc.)</li><li>• 1 set of objects that are recognizable as a whole and in parts (puzzle, pack of gum, etc.)</li><li>• 2 sets of objects each varying by 2 distinct attributes, one must be length (2 thin ribbons and 2 wide ribbons all varying in length, etc.)</li><li>• 2 containers large enough to hold 7 objects (box, bowl, basket, etc.)</li></ul>
Seventh	<ul style="list-style-type: none"><li>• 2 sets of objects each varying by 2 distinct attributes, one must be length (2 thin ribbons and 2 wide ribbons all varying in length, etc.)</li><li>• 2 sets of identical objects</li><li>• 1 set of 2 items that are entirely different (towel and shoe, etc.)</li><li>• 3 similar objects varying by only one attribute (large plastic cup, large paper cup, and small plastic cup, etc.)</li><li>• 2 sets of identical objects packaged together (packs of crayons, pencils, markers)</li><li>• 2 sets of 7 objects (7 cups and 7 erasers, etc.)</li><li>• Material to bundle items (string or rubber band, etc.)</li></ul>



Grade	Common Materials for Initial Precursor Testlets
Eighth	<ul style="list-style-type: none"> <li>• 2 sets of objects each varying by 2 distinct attributes, one must be length (2 thin ribbons and 2 wide ribbons all varying in length, etc.)</li> <li>• 2 pattern blocks</li> <li>• 2 sets of identical objects</li> <li>• 3 sets of 7 objects (7 counters, 7 cups, and 7 erasers, etc.)</li> <li>• 3 similar objects varying by only one attribute (large plastic cup, large paper cup, and small plastic cup, etc.)</li> <li>• 3 similar objects that range in size</li> <li>• 2 sets of identical objects packaged together (packs of crayons, pencils, markers)</li> <li>• Material to bundle items (string or rubber band, etc.)</li> </ul>
High School	<ul style="list-style-type: none"> <li>• 3 sets of 7 objects (7 counters, 7 cups, and 7 erasers, etc.)</li> <li>• 3 similar objects that range in size (small ball, medium ball, and large ball, etc.)</li> <li>• 2 sets of identical objects</li> <li>• 2 sets of objects each varying by 2 distinct attributes, one must be length (2 thin ribbons and 2 wide ribbons all varying in length, etc.)</li> <li>• 1 set of 4 objects: 2 identical, 1 similar varying by only 1 distinct attribute and 1 entirely different (2 identical plastic cups, 1 paper cup, and 1 block, etc.)</li> <li>• 3 similar objects varying by only one attribute (large plastic cup, large paper cup, and small plastic cup, etc.)</li> <li>• 2 sets of identical objects packaged together (packs of crayons, pencils, markers)</li> <li>• 2 pattern blocks</li> <li>• Material to bundle items (string or rubber band, etc.)</li> </ul>

There are a few testlets **above the initial precursor level** that are designed to be administered by the teacher. Materials needed for those testlets are listed in the table below.

Grade	Common Materials for Teacher-Administered Testlets Above the Initial Precursor Level
Third	<ul style="list-style-type: none"> <li>• 30 cards with numbers 1-30 printed on them (flash cards, note cards, paper, etc.)</li> </ul>
Fifth	<ul style="list-style-type: none"> <li>• 3 empty rectangular containers: 1 measuring five inches by eight inches by two inches, 1 measuring four inches by four inches by three inches, and 1 measuring six inches by two inches by three inches (cardboard, poster board, etc.)</li> <li>• 100 one inch unit cubes</li> </ul>
Sixth	<ul style="list-style-type: none"> <li>• 3 empty rectangular containers (empty tissue box, empty tea bag box, etc.)</li> <li>• 100 unit cubes</li> </ul>