

# Grade 3 Smarter Balanced Assessment Item Specifications Fact Sheet

**Claim 1 - Target I:** Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

**Content Domain:** Measurement and Data

**Claim 1 Priority Cluster**

## Standards Assessed in Target I:

**3.MD.5:** Recognize area as an attribute of plane figures and understand concepts of area measurement.

**a.** A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.

**b.** A plane figure which can be covered without gaps or overlaps by  $n$  unit squares is said to have an area of  $n$  square units.

**3.MD.6:** Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

**3.MD.7:** Relate area to the operations of multiplication and addition.

**a.** Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

**b.** Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

**c.** Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths  $a$  and  $b + c$  is the sum of  $a \times b$  and  $a \times c$ . Use area models to represent the distributive property in mathematical reasoning.

**d.** Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

## Achievement Level Descriptors

<b>Level 1</b>	Students should be able to recognize area as an attribute of plane figures and recognize that a square with side lengths of one unit is called a unit square.
<b>Level 2</b>	Students should be able to find the area of a rectilinear figure by counting unit squares.
<b>Level 3</b>	Students should be able to find the area of a rectilinear figure by multiplying side lengths and by decomposing a rectilinear figure into non-overlapping rectangles and adding them together.
<b>Level 4</b>	Students should be able to find the area of a rectilinear figure in a word problem.

## Construct-Relevant Vocabulary

area, plane figure, square centimeter, square feet, square inch, square meter, square unit, unit square

## Allowable Stimulus Materials

None.