



## Assessment Details Grade 8 Science

### Important Testing Dates (2020-2021)

<b>Online testing and data entry:</b>
March 8–May 21*

\* The actual dates your students take the exam varies by district. Testing calendars for each grade should be posted on your District or school’s website.

### Estimated Test Administration Times for Science MCA (2020-2021)

Grade and Test	Total Test Administration
8 Science MCA	0.5-1.5 Hours**

\*\* The Typical Range provides the length of time approximately 70% of students finished in 2019. This MDE estimated range for scheduling should be adjusted as needed based on each district’s experience.

### Target Item Counts by Depth of Knowledge (DOK) Levels

The MCA-III are constructed with minimum target percentages for items at DOK levels 1, 2 and 3. The table shows the target percentages and item counts by DOK levels.

Minimum Item Count Targets by DOK Level

Grades	DOK Level 1	DOK Level 2	DOK Level 3
5,8, and High School	40-60%	35-55%	5-10%

### The Design by Grade Level

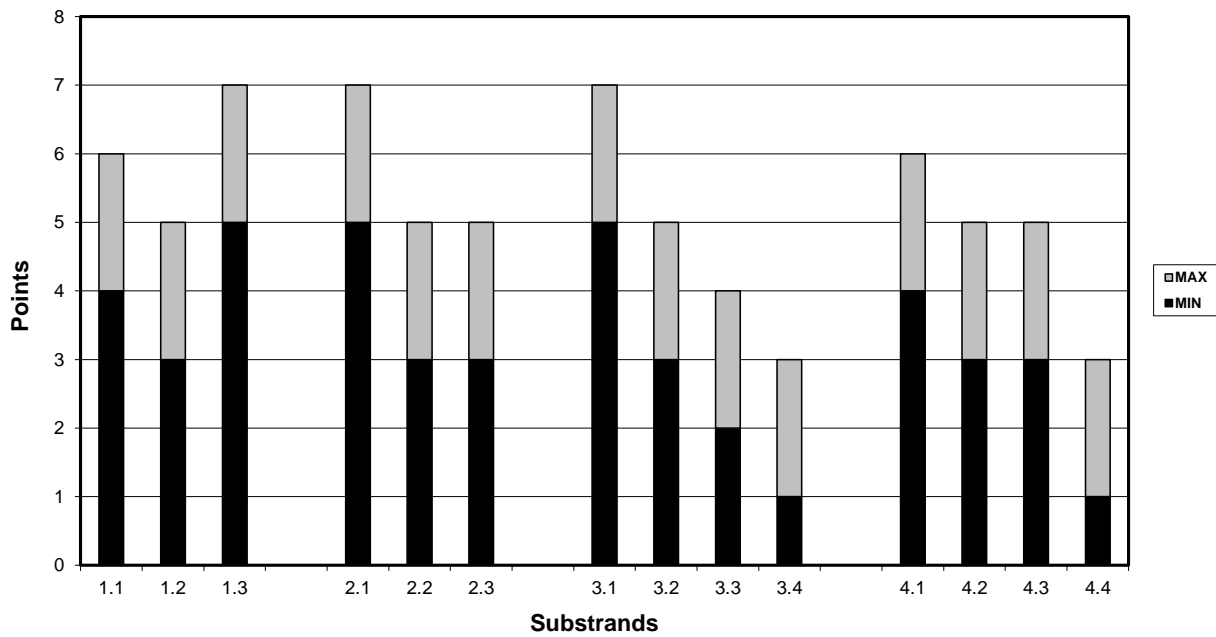
The following tables provide the approximate number of points by strand on the operational test for each grade. Multiple-choice (MC) items are each worth 1 point, while other item types are worth 1-3 points. Approximately 40–60 percent of the test will be comprised of multiple-choice items, and other item types will make up the remainder of the test.

## Grade 8 Science MCA-III (Operational Form)

Strand	Approximate Number of Points	Approximate Percent of Points
Nature of Science and Engineering (NSE)	13-15	28
Physical Science (PS)	11-13	24
Earth and Space Science (ESS)	11-13	24
Life Science (LS)	11-13	24
<b>Total</b>	<b>51</b>	<b>100</b>

## Points by Substrand

Grade 6–8 Points by Substrand



## **Grades 6-8 Points by Substrand**

### **1. Nature of Science and Engineering (13-15)**

1. The Practice of Science (4–6)
2. The Practice of Engineering (3-5)
3. Interactions among Science, Technology, Engineering, Mathematics and Society (5-7)

### **2. Physical Science (11-13)**

1. Matter (5-7)
2. Motion (3-5)
3. Energy (3-5)

### **3. Earth and Space Science (11-13)**

1. Earth Structure and Processes (5-7)
2. Interdependence within the Earth System (3-5)
3. The Universe (2-4)
4. Human Interactions with Earth Systems (1-3)

### **4. Life Science (11-13)**

1. Structure and Function in Living Systems (4-6)
2. Interdependence Among Living Systems (3-5)
3. Evolution in Living Systems (3-5)
4. Human Interactions with Living Systems (1-3)