

# Test Design Document

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## Ohio's Alternate Assessment for Students with Significant Cognitive Disabilities (AASCD)

4/28/2017

### Science

Grade 5

Grade 8

High School

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## OVERVIEW

### TEST DESCRIPTION

The Ohio Science Alternate Assessment for Students with Significant Cognitive Disabilities (AASCD) was developed for grades: 5, 8 and the High School. Each assessment contains a series of 12 performance tasks and a field-test task block. Each operational task ranges from four to six items. Each field-test task includes six to eight items. The items become increasingly more complex and difficult within a task, and the tasks become increasingly more complex as the student moves through the test form.

Students are not required to take every task in the assessment and will start the test at the point that is most appropriate for the student. The task at which the student begins the assessment is determined by a Student Placement Questionnaire completed by the student's teacher. Specifically, students can enter the operational assessment at one of three different points: Task 1, Task 3 or Task 6. For each starting point, students must complete a minimum number of tasks. The task at which the student exits the assessment is not predetermined. All students, regardless of starting point, will be required to take the field test task block. Instructions for selecting a student's starting and concluding tasks are provided in the *Directions for Administration Manual*.

Because students can enter the assessment at three different starting points and because they are not required to take every task in the assessment, it is necessary to make sure that each student encounters the breadth of standards encompassed in the Ohio Science Extended Content Standards (based on the Ohio Science Standards) by the time he or she reaches the designated stopping point. The standards encompassed in the Ohio Science Standards are listed in the table below.

| OHIO SCIENCE STANDARDS  |                         |                       |
|-------------------------|-------------------------|-----------------------|
| Gr. 3–5                 | Gr. 6–8                 | High School           |
| Earth and Space Science | Earth and Space Science | Biology               |
| Life Science            | Life Science            | Chemistry             |
| Physical Science        | Physical Science        | Environmental Science |
|                         |                         | Physical Geology      |
|                         |                         | Physical Science      |
|                         |                         | Physics               |

## EMBEDDED FIELD-TESTING PLAN

Each year new tasks will be field-tested for possible placement on an operational form. The field-test tasks on each form will be in the same position—at the end of the test—each year. Every student, regardless of starting point, must be administered all items in the field-test task.

## COMMUNICATION LEVELS

The tasks and items written for the Ohio Alternate Assessment are aligned not only to the extended grade-level indicators but also to three communication levels. These levels refer to the level of complexity of the communication method the student uses. Tasks and items written to the pre-symbolic level are intended for students who communicate mainly with gestures and eye gaze. Tasks and items written to the symbolic level are intended for students who speak or have a vocabulary of signs or use pictures to communicate. Tasks and items written to the abstract level are intended for students who speak, read, write, and understand sentences and basic mathematics.

## GENERAL BLUEPRINT AND TEST DESIGN

### GENERAL BLUEPRINT

| <b>OH SCIENCE AASCD</b>    |                               |                               |                         |
|----------------------------|-------------------------------|-------------------------------|-------------------------|
| <b>Entry/Minimum Stop*</b> | <b>Number of Tasks Scored</b> | <b>Number of Items Scored</b> | <b>Number of Points</b> |
| 1-5                        | 5                             | 20-30                         | 40-68                   |
| 3-9                        | 7                             | 28-42                         | 56-84                   |
| 6-12                       | 7                             | 28-42                         | 56-84                   |
| Total                      | 12                            | 48-72                         | 96-144                  |

\*The general blueprint only reflects students who take the minimum number of tasks.

## STANDARDS BY TASKS

**OH SCIENCE AASCD BLUEPRINT FOR STANDARDS BY TASKS****Grade 5**

| <b>Standard</b>         | <b>Number of Tasks Scored</b> | <b>Number of Items Scored</b> | <b>Number of Points</b> |
|-------------------------|-------------------------------|-------------------------------|-------------------------|
| Earth and Space Science | 4                             | 16–24                         | 32–52                   |
| Life Science            | 4                             | 16–24                         | 32–52                   |
| Physical Science        | 4                             | 16–24                         | 32–52                   |

**OH SCIENCE AASCD BLUEPRINT FOR STANDARDS BY TASKS****Grade 8**

| <b>Standard</b>         | <b>Number of Tasks Scored</b> | <b>Number of Items Scored</b> | <b>Number of Points</b> |
|-------------------------|-------------------------------|-------------------------------|-------------------------|
| Earth and Space Science | 4                             | 16–24                         | 32–52                   |
| Life Science            | 4                             | 16–24                         | 32–52                   |
| Physical Science        | 4                             | 16–24                         | 32–52                   |

**OH SCIENCE AASCD BLUEPRINT FOR STANDARDS BY TASKS****High School**

| <b>Standard</b>       | <b>Number of Tasks Scored</b> | <b>Number of Items Scored</b> | <b>Number of Points</b> |
|-----------------------|-------------------------------|-------------------------------|-------------------------|
| Biology               | 2                             | 8–12                          | 16–28                   |
| Chemistry             | 2                             | 8–12                          | 16–28                   |
| Environmental Science | 2                             | 8–12                          | 16–28                   |
| Physical Geology      | 2                             | 8–12                          | 16–28                   |
| Physical Science      | 2                             | 8–12                          | 16–28                   |
| Physics               | 2                             | 8–12                          | 16–28                   |

BREADTH OF COVERAGE

**OH SCIENCE AASCD BREADTH OF COVERAGE**

**GRADE 5**

|              | <b>Start</b> | <b>End</b> | <b>Standard<br/>1<br/>Earth<br/>and<br/>Space<br/>Science</b> | <b>Standard<br/>2<br/>Life<br/>Science</b> | <b>Standard<br/>3<br/>Physical<br/>Science</b> |  |  |  |
|--------------|--------------|------------|---|--|--|--|--|--|
| Pre-symbolic | Task 1       | Task 5     | X   | X  | X  |  |  |  |
| Concrete     | Task 3       | Task 9     | X   | X  | X  |  |  |  |
| Abstract     | Task 6       | Task 12    | X   | X  | X  |  |  |  |

**OH SCIENCE AASCD BREADTH OF COVERAGE**

**GRADE 8**

|              | <b>Start</b> | <b>End</b> | <b>Standard<br/>1<br/>Earth<br/>and<br/>Space<br/>Science</b> | <b>Standard<br/>2<br/>Life<br/>Science</b> | <b>Standard<br/>3<br/>Physical<br/>Science</b> |  |  |  |
|--------------|--------------|------------|---|--|--|--|--|--|
| Pre-symbolic | Task 1       | Task 5     | X   | X  | X  |  |  |  |
| Concrete     | Task 3       | Task 9     | X   | X  | X  |  |  |  |
| Abstract     | Task 6       | Task 12    | X   | X  | X  |  |  |  |

**OH SCIENCE AASCD BREADTH OF COVERAGE**

**HIGH SCHOOL**

|              | <b>Start</b> | <b>End</b> | <b>Standard<br/>1<br/>Biology</b> | <b>Standard<br/>2<br/>Chemistry</b> | <b>Standard 3<br/>Environmental<br/>Science</b> | <b>Standard<br/>4<br/>Physical<br/>Geology</b> | <b>Standard<br/>5<br/>Physical<br/>Science</b> | <b>Standard<br/>6<br/>Physics</b> |
|--------------|--------------|------------|-----------------------------------|-------------------------------------|---|--|--|-----------------------------------|
| Pre-symbolic | Task 1       | Task 5     | *                                 | *                                   | *   | *  | *  | *                                 |
| Concrete     | Task 3       | Task 9     | X                                 | X                                   | X   | X  | X  | X                                 |
| Abstract     | Task 6       | Task 12    | X                                 | X                                   | X   | X  | X  | X                                 |

*\*There are six standards categories for the Science High School test. Therefore, students who start on task 1 but only complete the minimum number of five tasks will only be exposed to five of the six total standards. If a standards category is not represented in the first five tasks in a given administration, it will be represented in the following administration.*