

Alaska Science Assessment Blueprint

The high-level blueprint for the Alaska Science Assessments includes overall designs for each grade level test, reporting categories, number of items, number of points in each category, and the estimated testing time by grade level in the charts below.

## Table 1. Operational Science Design and Blueprint

| **Grade Level** | **Number of Multiple-Choice, Multi-Select, and Technology-Enhanced Items** | **Total Possible Points** |
| --- | --- | --- |
| 5 | 40 | 40 |
| 8 | 40 | 40 |
| 10 | 40 | 40 |

## Calculator Use by Grade Level

According to the *K–12 Science Standards for Alaska*, adopted in 2019, students are expected to use mathematics skills to represent physical variables and their relationships, and to make quantitative predictions. Mathematics is a tool that is key to understanding science, and classroom instruction should enhance all of science through the use of quality mathematical and computational thinking. Therefore, specific types of calculators are allowable on the Alaska Science Assessment according to the grade-level chart below.

Additional information about the use of calculators can be found in the Calculator Policy on the [Alaska Science Assessment Test Administration webpage](https://education.alaska.gov/assessments/science/test-administration).

## Table 2. Calculator Use by Grade Level and Test Part

| **Grade Level** | **All Parts** |
| --- | --- |
| 5 | Basic Calculators Allowed |
| 8 | Basic Calculators Allowed |
| 10 | Basic and Scientific Calculators Allowed |

# Science Reporting Categories

Alaska’s standards define what a student should know and be able to do. The standards are organized in groups of similar standards. Alaska Science Assessment items assess student skills on reporting categories that correspond to a group of standards. The science reporting categories were determined in consultation with Alaska educators during the standards adoption process. Tables 3-5 show possible points for each grade level.

## Table 3. Grade 5 Science Reporting Categories

| **Domain (Reporting Category)** | **Possible Points** |
| --- | --- |
| Physical Science | 12-14 |
| Life Science | 12-14 |
| Earth and Space Science | 12-14 |
| **Total Science Points Possible** | **40** |

## Table 4. Grade 8 Science Reporting Categories

| **Domain (Reporting Category)** | **Possible Points** |
| --- | --- |
| Physical Science | 12-14 |
| Life Science | 12-14 |
| Earth and Space Science | 12-14 |
| **Total Science Points Possible** | **40** |

## Table 5. Grade 10 Science Reporting Categories

| **Domain (Reporting Category)** | **Possible Points** |
| --- | --- |
| Physical Science | 20 |
| Life Science | 20 |
| **Total Science Points Possible** | **40** |

*\*Grade 10 students taking the Alaska Science Assessment have access to a periodic table within the assessment platform. This table can also be provided in print form and can be found on the* [*Alaska Science Assessment Test Administration webpage*](https://education.alaska.gov/assessments/science/test-administration)*.*

# Science Estimated Test Times

The estimated test times in the following tables are approximate and do not include time needed to start computers, log in students, hand out test materials, and read test directions.

## Table 6. Estimated Test Time for Science by Test Part

| **Test** | **Estimated Time Per Part** |
| --- | --- |
| Grade 5 Part 1 | 35 Minutes |
| Grade 5 Part 2 | 35 Minutes |
| Grade 5 Part 3 | 35 Minutes |
| Grade 8 Part 1 | 35 Minutes |
| Grade 8 Part 2 | 35 Minutes |
| Grade 8 Part 3 | 35 Minutes |
| Grade 10 Part 1 | 35 Minutes |
| Grade 10 Part 2 | 35 Minutes |
| Grade 10 Part 3 | 35 Minutes |

## Table 7. Estimated Test Time for Science

| **Grade Level** | **Estimated Total Test Time** |
| --- | --- |
| Grade 5 | 105 Minutes |
| Grade 8 | 105 Minutes |
| Grade 10 | 105 Minutes |