## Appendix tables for 2019 science report card

## 2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

## Table of Contents

Student sample sizes and target populations in NAEP science, by grade: 2019 ..... 1
Public and nonpublic school and student participation rates in NAEP science, by grade: 2019 .....  2
Percentage of fourth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of all students, by SD/EL category: 2009, 2015, and 2019 .....  .3
Percentage of eighth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of all students, by SD/EL category: Various years, 2009-2019 .....  .4
Percentage of twelfth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of all students, by SD/EL category: 2009, 2015, and 2019 .....  .5
Percentage of fourth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of identified SD and/or EL students, by SD/EL category: 2019 .....  6
Percentage of eighth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of identified SD and/or EL students, by SD/EL category: 2019 .....  7
Percentage of twelfth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of identified SD and/or EL students, by SD/EL category: 2019 ..... 8
Percentage of fourth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English learners (EL) assessed in NAEP science with accommodations, by SD/EL category and type of accommodation: 2019 ..... 9
Percentage of eighth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English learners (EL) assessed in NAEP science with accommodations, by SD/EL category and type of accommodation: 2019 ..... 10
Percentage of twelfth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English learners (EL) assessed in NAEP science with accommodations, by SD/EL category and type of accommodation: 2019 ..... 11
Percentage of students in fourth-grade NAEP science, by selected characteristics: 2009, 2015, and 2019 ..... 12
Overall average scores and selected percentile scores in fourth-grade NAEP science: 2009, 2015, and 2019 ..... 13
Average scores and achievement-level results in NAEP science for fourth-grade students, by selected characteristics: 2009, 2015, and 2019 ..... 14
Percentage of students in eighth-grade NAEP science, by selected characteristics: 2009, 2015, and 2019 ..... 15
Overall average scores and selected percentile scores in eighth-grade NAEP science: Various years, 2009-2019 ..... 16
Average scores and achievement-level results in NAEP science for eighth-grade students, by selected characteristics: Various years, 2009-2019 ..... 17
Percentage of students in twelfth-grade NAEP science, by selected characteristics: 2009, 2015, and 2019 ..... 18
Overall average scores and selected percentile scores in twelfth-grade NAEP science: 2009, 2015, and 2019 ..... 19
Average scores and achievement-level results in NAEP science for twelfth-grade students, by selected characteristics: 2009, 2015, and2019.20

## National Center for Education Statistics

2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

Student sample sizes and target populations in NAEP science, by grade: 2019

| Grade | Sample size | Target population |
| :--- | ---: | ---: |
| Grade 4 |  |  |
| Nation | $\mathbf{3}$ |  |
| Public | 28,600 | $\mathbf{3 , 9 8 5}, \mathbf{0 0 0}$ |
| Private | 2,400 | $3,694,000$ |

Grade 8

| Nation | $\mathbf{3 2 , 0 0 0}$ | $\mathbf{3 , 9 2 3 , 0 0 0}$ |
| :---: | ---: | ---: |
| Public | 29,600 | $3,606,000$ |
| Private | 2,400 | 317,000 |

Grade 12

| Nation | $\mathbf{2 7 , 3 0 0}$ | $\mathbf{3 , 4 4 9 , 0 0 0}$ |
| :---: | ---: | ---: |
| Public | 25,800 | $3,179,000$ |
| Private | 1,500 | 269,000 |

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). The sample size is rounded to the nearest hundred. The target population is rounded to the nearest thousand. Data for BIE and DoDEA schools are counted in the overall national totals, but not in the public school totals. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 Science Assessment.

## National Center for Education Statistics

## 2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

Public and nonpublic school and student participation rates in NAEP science, by grade: 2019

| Grade | School participation |  |  | Student participation |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Studentweighted percent | Schoolweighted percent | Number of schools participating | Student weighted percent | Number of students assessed |
| Grade 4 |  |  |  |  |  |
| Nation | 93 | 81 | 1,090 | 94 | 30,400 |
| Public | 97 | 94 | 910 | 93 | 28,000 |
| Private | 50 | 45 | 180 | 95 | 2,400 |
| Grade 8 |  |  |  |  |  |
| Nation | 91 | 75 | 1,070 | 91 | 31,400 |
| Public | 95 | 94 | 900 | 90 | 29,100 |
| Private | 44 | 45 | 170 | 94 | 2,300 |
| Grade 12 |  |  |  |  |  |
| Nation | 84 | 73 | 1,760 | 72 | 26,400 |
| Public | 88 | 86 | 1,630 | 72 | 24,900 |
| Private | 35 | 33 | 130 | 77 | 1,500 |

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). However, participation rates in 2019 are from the digitally based assessment only. The national totals for schools include Department of Defense Education Activity (overseas and domestic schools) and Bureau of Indian Education schools, which are not included in either the public or private school totals. The national totals for students include students in these schools. The number of schools is rounded to the nearest ten. The number of students is rounded to the nearest hundred. The school participation rates are student-weighted percentages before substitution. Columns of percentages have different denominators. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education
Statistics, National Assessment of Educational Progress (NAEP), 2019 Science Assessment.

## National Center for Education Statistics

2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

Percentage of fourth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of all students, by SD/EL category: 2009, 2015, and 2019

| SD/EL category | 2009 | 2015 | 2019 |
| :---: | :---: | :---: | :---: |
| SD and/or EL |  |  |  |
| Identified | 21 | 23 | 25 |
| Excluded | 2 | 1 | 2 |
| Assessed | 19 | 22 | 24 |
| Without accommodations | 8 | 8 | 9 |
| With accommodations | 11 | 14 | 15 |
| SD |  |  |  |
| Identified | 13 | 14 | 15 |
| Excluded | 2 | 1 | 1 |
| Assessed | 11 | 13 | 14 |
| Without accommodations | 3 | 3 | 3 |
| With accommodations | 8 | 10 | 11 |
| EL |  |  |  |
| Identified | 10 | 11 | 12 |
| Excluded | 1 | \# | 1 |
| Assessed | 9 | 10 | 12 |
| Without accommodations | 5 | 6 | 6 |
| With accommodations | 4 | 5 | 6 |

\# Rounds to zero.
NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paperbased assessment (PBA). Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009, 2015, and 2019 Science Assessments.

## National Center for Education Statistics

2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

Percentage of eighth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of all students, by SD/EL category: Various years, 2009-2019

| SD/EL category | 2009 | 2011 | 2015 | 2019 |
| :---: | :---: | :---: | :---: | :---: |
| SD and/or EL |  |  |  |  |
| Identified | 17 | 17 | 18 | 20 |
| Excluded | 2 | 2 | 2 | 2 |
| Assessed | 15 | 15 | 16 | 18 |
| Without accommodations | 5 | 4 | 5 | 6 |
| With accommodations | 10 | 11 | 12 | 13 |
| SD |  |  |  |  |
| Identified | 12 | 12 | 13 | 14 |
| Excluded | 2 | 1 | 1 | 1 |
| Assessed | 11 | 11 | 12 | 13 |
| Without accommodations | 2 | 2 | 2 | 2 |
| With accommodations | 9 | 9 | 10 | 10 |
| EL |  |  |  |  |
| Identified | 5 | 6 | 6 | 7 |
| Excluded | \# | \# | 1 | \# |
| Assessed | 5 | 5 | 6 | 7 |
| Without accommodations | 3 | 3 | 3 | 4 |
| With accommodations | 2 | 2 | 3 | 3 |

\# Rounds to zero.
NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2009-2019 Science Assessments.

## National Center for Education Statistics

2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

Percentage of twelfth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of all students, by SD/EL category: 2009, 2015, and 2019

| SD/EL category | 2009 | 2015 | 2019 |
| :---: | :---: | :---: | :---: |
| SD and/or EL |  |  |  |
| Identified | 13 | 15 | 16 |
| Excluded | 3 | 2 | 2 |
| Assessed | 11 | 13 | 14 |
| Without accommodations | 4 | 3 | 4 |
| With accommodations | 7 | 9 | 10 |
| SD |  |  |  |
| Identified | 11 | 12 | 13 |
| Excluded | 2 | 2 | 2 |
| Assessed | 8 | 10 | 11 |
| Without accommodations | 2 | 1 | 2 |
| With accommodations | 6 | 8 | 9 |
| EL |  |  |  |
| Identified | 3 | 4 | 5 |
| Excluded | \# | \# | \# |
| Assessed | 3 | 3 | 4 |
| Without accommodations | 2 | 2 | 2 |
| With accommodations | 1 | 1 | 2 |

\# Rounds to zero.
NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paperbased assessment (PBA). Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009, 2015, and 2019 Science Assessments.

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Percentage of fourth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of identified SD and/or EL students, by SD/EL category: 2019

|  | Percentage of identified SD and/or EL students |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Excluded |  | Assessed without <br> accommodations | Assessed with <br> accommodations |
|  | 6 | 94 | 34 | 59 |
| SD | 8 | 92 | 19 | 72 |
| EL | 4 | 96 | 50 | 46 |

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paperbased assessment (PBA). Students identified as both SD and EL were counted only once under the combined SD and/ or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 Science Assessment.

## National Center for Education Statistics

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Percentage of eighth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of identified SD and/or EL students, by SD/EL category: 2019

|  | Percentage of identified SD and/or EL students |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: |
| SD/EL category | Excluded | Assessed |  |  |  | | Assessed without |
| ---: |
| accommodations | | Assessed with <br> accommodations |
| ---: |
| SD and/or EL |
| SD |

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paperbased assessment (PBA). Students identified as both SD and EL were counted only once under the combined SD and/ or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 Science Assessment.

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Percentage of twelfth-grade students with disabilities (SD) and/or English learners (EL) excluded and assessed in NAEP science, as a percentage of identified SD and/or EL students, by SD/EL category: 2019

|  | Percentage of identified SD and/or EL students |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Excluded | Assessed | Assessed without <br> accommodations | Assessed with <br> accommodations |
|  | 13 | 87 | 23 | 64 |
| SD | 16 | 84 | 15 | 69 |
| EL | 6 | 94 | 47 | 47 |

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paperbased assessment (PBA). Students identified as both SD and EL were counted only once under the combined SD and/ or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 Science Assessment.

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Percentage of fourth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English learners (EL) assessed in NAEP science with accommodations, by SD/EL category and type of accommodation: 2019

| Type of accommodation | SD and/or EL | SD | EL |
| :---: | :---: | :---: | :---: |
| Bilingual booklet | 0.43 | 0.04 | 0.43 |
| Bilingual dictionary | 1.42 | 0.12 | 1.42 |
| Braille | \# | \# | \# |
| Breaks during test | 4.20 | 3.81 | 0.82 |
| Cueing to stay on task | 2.52 | 2.33 | 0.43 |
| Directions only presented in Sign Language | 0.01 | 0.01 | \# |
| Directions only translated into Spanish | 0.13 | 0.01 | 0.13 |
| Directions read aloud in English | 0.64 | 0.41 | 0.31 |
| Directions read aloud in Spanish | 0.05 | 0.01 | 0.05 |
| Extended time | 11.83 | 8.50 | 4.54 |
| Hearing impaired version of test | 0.04 | 0.04 | 0.01 |
| High contrast for visually impaired | 0.04 | 0.04 | \# |
| Large-print booklet | 0.03 | 0.03 | 0.01 |
| Low mobility version of test | 0.03 | 0.03 | \# |
| Magnification equipment | 0.10 | 0.10 | 0.01 |
| Must be tested in a separate session | 3.27 | 2.98 | 0.65 |
| One-on-one | 0.18 | 0.18 | 0.03 |
| Other | 0.18 | 0.14 | 0.04 |
| Preferential seating | 2.96 | 2.76 | 0.52 |
| Presentation in Sign Language | 0.01 | 0.01 | \# |
| Read aloud in English (all) | 2.45 | 2.00 | 0.74 |
| Read aloud in English (occasional) | 0.24 | 0.15 | 0.12 |
| Read aloud in Spanish | 0.02 | 0.01 | 0.02 |
| Responds orally to scribe | 0.35 | 0.35 | 0.05 |
| Response in Sign Language | \# | \# | \# |
| School staff administers | 1.12 | 1.03 | 0.21 |
| Small group | 2.36 | 2.02 | 0.56 |
| Special equipment | 0.39 | 0.35 | 0.10 |
| Text to speech in Spanish | 0.35 | 0.04 | 0.35 |
| Uses computer or typewriter to respond | 0.05 | 0.05 | 0.01 |
| Uses template | 0.27 | 0.24 | 0.07 |

\# Percentage less than . 005.
NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 Science Assessment.

## National Center for Education Statistics

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Percentage of eighth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English learners (EL) assessed in NAEP science with accommodations, by SD/EL category and type of accommodation: 2019

| Type of accommodation | SD and/or EL | SD | EL |
| :---: | :---: | :---: | :---: |
| Bilingual booklet | 0.33 | 0.07 | 0.33 |
| Bilingual dictionary | 1.09 | 0.06 | 1.09 |
| Braille | \# | \# | \# |
| Breaks during test | 2.34 | 2.22 | 0.32 |
| Cueing to stay on task | 1.26 | 1.20 | 0.17 |
| Directions only presented in Sign Language | 0.02 | 0.02 | \# |
| Directions only translated into Spanish | 0.06 | 0.01 | 0.06 |
| Directions read aloud in English | 0.44 | 0.38 | 0.08 |
| Directions read aloud in Spanish | 0.03 | \# | 0.03 |
| Extended time | 10.31 | 8.46 | 2.65 |
| Hearing impaired version of test | 0.02 | 0.02 | \# |
| High contrast for visually impaired | 0.02 | 0.02 | \# |
| Large-print booklet | 0.04 | 0.04 | \# |
| Low mobility version of test | \# | \# | \# |
| Magnification equipment | 0.12 | 0.12 | 0.01 |
| Must be tested in a separate session | 2.53 | 2.37 | 0.35 |
| One-on-one | 0.10 | 0.09 | \# |
| Other | 0.13 | 0.10 | 0.05 |
| Preferential seating | 2.36 | 2.26 | 0.26 |
| Presentation in Sign Language | 0.02 | 0.02 | \# |
| Read aloud in English (all) | 1.43 | 1.29 | 0.29 |
| Read aloud in English (occasional) | 0.40 | 0.33 | 0.15 |
| Read aloud in Spanish | 0.05 | 0.02 | 0.05 |
| Responds orally to scribe | 0.17 | 0.17 | 0.01 |
| Response in Sign Language | \# | \# | \# |
| School staff administers | 0.35 | 0.33 | 0.05 |
| Small group | 1.75 | 1.62 | 0.25 |
| Special equipment | 0.17 | 0.17 | 0.01 |
| Text to speech in Spanish | 0.23 | 0.05 | 0.23 |
| Uses computer or typewriter to respond | 0.12 | 0.11 | 0.02 |
| Uses template | 0.13 | 0.07 | 0.08 |

\# Percentage less than . 005 .
NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 Science Assessment.

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Percentage of twelfth-grade public and nonpublic school students identified as students with disabilities (SD) and/or English learners (EL) assessed in NAEP science with accommodations, by SD/EL category and type of accommodation: 2019

| Type of accommodation | SD and/or EL | SD | EL |
| :---: | :---: | :---: | :---: |
| Bilingual dictionary | 1.26 | 0.06 | 1.26 |
| Braille | 0.01 | 0.01 | \# |
| Breaks during test | 1.37 | 1.33 | 0.09 |
| Cueing to stay on task | 0.43 | 0.41 | 0.03 |
| Directions only presented in Sign Language | \# | \# | \# |
| Directions only translated into Spanish | \# | \# | \# |
| Directions read aloud in English | 0.26 | 0.21 | 0.06 |
| Directions read aloud in Spanish | 0.07 | \# | 0.07 |
| Extended time | 9.19 | 7.82 | 1.84 |
| Hearing impaired version of test | 0.09 | 0.09 | \# |
| High contrast for visually impaired | 0.03 | 0.03 | \# |
| Large-print booklet | 0.03 | 0.03 | \# |
| Low mobility version of test | 0.01 | 0.01 | \# |
| Magnification equipment | 0.08 | 0.08 | \# |
| Must be tested in a separate session | 1.55 | 1.44 | 0.19 |
| One-on-one | 0.06 | 0.06 | 0.01 |
| Other | 0.05 | 0.05 | 0.01 |
| Preferential seating | 1.69 | 1.63 | 0.17 |
| Presentation in Sign Language | 0.03 | 0.03 | \# |
| Read aloud in English (all) | 0.69 | 0.63 | 0.10 |
| Read aloud in English (occasional) | 0.26 | 0.22 | 0.07 |
| Responds orally to scribe | 0.07 | 0.07 | 0.01 |
| Response in Sign Language | \# | \# | \# |
| School staff administers | 0.28 | 0.23 | 0.05 |
| Small group | 1.33 | 1.26 | 0.16 |
| Special equipment | 0.09 | 0.09 | 0.01 |
| Uses computer or typewriter to respond | 0.06 | 0.06 | 0.01 |
| Uses template | 0.05 | 0.04 | 0.01 |

\# Percentage less than . 005.
NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). Students identified as both SD and EL were counted only once under the combined SD and/or EL category, but were counted separately under the SD and EL categories. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 Science Assessment.

## National Center for Education Statistics

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Percentage of students in fourth-grade NAEP science, by selected characteristics: 2009, 2015, and 2019

| Characteristic | Percentage of students |  |  |
| :---: | :---: | :---: | :---: |
|  | 2009 | 2015 | 2019 |
| Race/ethnicity |  |  |  |
| White | 56* | 51* | 48 |
| Black | 16* | 14 | 15 |
| Hispanic | 21* | 25* | 27 |
| Asian/Pacific Islander | 5* | 6 | 5 |
| Asian | - | 5 | 5 |
| Native Hawaiian/Other Pacific Islander | - | \# | \# |
| American Indian/Alaska Native | 1* | 1 | 1 |
| Two or more races | 2* | 3* | 4 |
| Gender |  |  |  |
| Male | 51 | 51 | 51 |
| Female | 49 | 49 | 49 |
| Eligibility for National School Lunch Program |  |  |  |
| Eligible | 45* | 52 | 50 |
| Not eligible | 49* | 42 | 44 |
| Information not available | 6 | 6 | 6 |
| Type of school |  |  |  |
| Public | 91* | 92 | 93 |
| Private: Catholic | 4* | 3 | 3 |
| Charter school |  |  |  |
| Charter | 2* | 5 | 5 |
| Public, noncharter | 98* | 95 | 95 |
| School location |  |  |  |
| City | 31 | 31 | 30 |
| Suburb | 36* | 41 | 41 |
| Town | 11 | 11 | 10 |
| Rural | 21* | 17 | 19 |
| Region of the country |  |  |  |
| Northeast | 17* | 16 | 15 |
| Midwest | 22* | 21 | 21 |
| South | 37* | 38* | 40 |
| West | 24 | 25* | 23 |
| Status as students with disabilities (SD) |  |  |  |
| SD | 11* | 13* | 14 |
| Not SD | 89* | 87* | 86 |
| Status as English learners (EL) |  |  |  |
| EL | 9* | 11* | 12 |
| Not EL | 91* | 89* | 88 |

- Not available.
\# Rounds to zero.
* Significantly different ( $p<.05$ ) from 2019,

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Prior to 2011, students in the "Two or More Races" category were categorized as "unclassified." For the National School Lunch Program (NSLP) eligibility category, results have been reported since 2003 when the quality of the data on students' eligibility for the program improved. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. The results for students with disabilities and English learners are based on students who were assessed and cannot be generalized to the total population of such students. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009, 2015, and 2019 Science Assessments.

## National Center for Education Statistics

## 2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

Overall average scores and selected percentile scores in fourth-grade NAEP science: 2009, 2015, and 2019

| Type of score | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 9}$ |
| :--- | :--- | :--- | :--- |
| Overall average score | $150^{*}$ | $154^{*}$ | 151 |
| 10th percentile score | 104 | $108^{*}$ | 103 |
| 25th percentile score | 128 | $132^{*}$ | 129 |
| 50th percentile score | 153 | $157^{*}$ | 154 |
| 75th percentile score | $175^{*}$ | 178 | 177 |
| 90th percentile score | $192^{*}$ | 196 | 196 |

* Significantly different ( $p<.05$ ) from 2019.

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009, 2015, and 2019 Science Assessments.

## National Center for Education Statistics

2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

## Average scores and achievement-level results in NAEP science for fourth-grade students, by selected characteristics: 2009, 2015, and 2019

| Characteristic | Average scale score |  |  | Percentage of students |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Below NAEP Basic |  |  | At or above NAEP Basic |  |  | At or above NAEP Proficient |  |  | At NAEP Advanced |  |  |
|  | 2009 | 2015 | 2019 | 2009 | 2015 | 2019 | 2009 | 2015 | 2019 | 2009 | 2015 | 2019 | 2009 | 2015 | 2019 |
| Race/ethnicity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| White | 163 | 166* | 163 | 13* | 12* | 15 | 87* | 88* | 85 | 47 | 51 | 48 | 1 | 1 | 1 |
| Black | 127* | 133* | 130 | 53* | 46 | 49 | 47* | 54 | 51 | 11* | 15 | 14 | \# | \# | \# |
| Hispanic | 131* | 139 | 138 | 47* | 38 | 39 | 53* | 62 | 61 | 14* | 21 | 21 | \# | \# | \# |
| Asian/Pacific Islander | 160* | 167 | 166 | 19 | 14 | 16 | 81 | 86 | 84 | 45* | 53 | 53 | 2 | 3 | 4 |
| Asian | - | 169 | 168 | - | 13 | 15 | - | 87 | 85 | - | 55 | 55 | - | 3 | 4 |
| Native Hawaiian/Other Pacific Islander | - | 143 | 142 | - | 34 | 37 | - | 66 | 63 | - | 27 | 26 | - | \# | 1 |
| American Indian/Alaska Native | 135* | 139 | 141 | 43* | 38 | 36 | 57* | 62 | 64 | 17 | 20 | 24 | \# | \# | 1 |
| Two or more races | 154* | 158 | 159 | 22 | 19 | 21 | 78 | 81 | 79 | 35* | 41 | 43 | 1 | 1 | 2 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 151 | 154* | 151 | 27 | 24* | 27 | 73 | 76* | 73 | 35 | 39* | 36 | 1 | 1 | 1 |
| Female | 149* | 154* | 151 | 28 | 24* | 27 | 72 | 76* | 73 | 32* | 37* | 35 | 1* | 1 | 1 |
| Eligibility for National School Lunch Program |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Eligible | 134* | 140* | 137 | 44* | 37* | 40 | 56* | 63* | 60 | 16* | 22* | 20 | \# | \# | \# |
| Not eligible | 163* | 169* | 166 | 14 | 10* | 13 | 86 | 90* | 87 | 48* | 55* | 52 | 1 | 2 | 2 |
| Information not available | 162 | 165 | 163 | 15 | 13 | 15 | 85 | 87 | 85 | 47 | 51 | 46 | 1 | 2 | 2 |
| Type of school |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Public | 149* | 153* | 150 | 29 | 25* | 28 | 71 | 75* | 72 | 32* | 37* | 35 | 1 | 1 | 1 |
| Private: Catholic | 164 | 167 | 164 | 14 | 11 | 13 | 86 | 89 | 87 | 50 | 52 | 48 | 1 | 2 | 1 |
| Charter school |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Charter | 139 | 151* | 143 | 38 | 27* | 36 | 62 | 73* | 64 | 22 | 34 | 27 | \# | 1 | 1 |
| Public, noncharter | 149* | 153* | 151 | 29 | 25* | 27 | 71 | 75* | 73 | 33* | 37 | 35 | 1* | 1 | 1 |
| School location |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| City | 142 | 148* | 144 | 37 | 31* | 34 | 63 | 69* | 66 | 27 | 32 | 29 | 1 | 1 | 1 |
| Suburb | 154 | 157 | 155 | 24 | 21* | 23 | 76 | 79* | 77 | 38 | 41 | 40 | 1 | 1 | 1 |
| Town | 150 | 153 | 151 | 26 | 24 | 26 | 74 | 76 | 74 | 33 | 36 | 34 | \# | 1 | \# |
| Rural | 155 | 157* | 154 | 21 | 19* | 23 | 79 | 81* | 77 | 37 | 41 | 38 | \# | 1 | 1 |
| Region of the country |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Northeast | 154 | 156 | 153 | 24 | 23 | 25 | 76 | 77 | 75 | 38 | 40 | 38 | 1 | 1 | 1 |
| Midwest | 155 | 157* | 153 | 22 | 20* | 24 | 78 | 80* | 76 | 40 | 41 | 39 | 1 | 1 | 1 |
| South | 150 | 155* | 151 | 28 | 23* | 27 | 72 | 77* | 73 | 32* | 39* | 35 | 1* | 1 | 1 |
| West | 143* | 147 | 148 | 35* | 30 | 30 | $65^{*}$ | 70 | 70 | 28* | 31 | 32 | 1 | 1 | 1 |
| Status as students with disabilities (SD) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD | 129* | 131* | 124 | 49* | 47* | 56 | 51* | 53* | 44 | 17 | 18* | 15 | \# | \# | \# |
| Not SD | 153* | 157 | 156 | 25* | 21* | 22 | 75* | 79* | 78 | 36* | 41 | 39 | 1* | 1 | 1 |
| Status as English learners (EL) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EL | 114* | 121 | 122 | 67* | 59 | 59 | 33* | 41 | 41 | 5* | 9 | 9 | \# | \# | \# |
| Not EL | 154* | 158* | 155 | 24 | 20* | 23 | 76 | 80* | 77 | 37* | 41 | 39 | 1* | 1 | 1 |

- Not available.
* Significantly different ( $p<.05$ ) from 2019

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Prior to 2011, students in the "Two or More Races" category were categorized as "unclassified." For the National School Lunch Program (NSLP) eligibility category, results have been reported since 2003 when the quality of the data on students' eligibility for the program improved. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973 . The results for students with SOURCE: US. Dis

RCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009, 2015, and 2019 Science Assessments.

## National Center for Education Statistics

2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

Percentage of students in eighth-grade NAEP science, by selected characteristics: 2009, 2015, and 2019

| Characteristic | Percentage of students |  |  |
| :---: | :---: | :---: | :---: |
|  | 2009 | 2015 | 2019 |
| Race/ethnicity |  |  |  |
| White | 58* | 52* | 49 |
| Black | 15* | 15 | 14 |
| Hispanic | 20* | 24* | 26 |
| Asian/Pacific Islander | 5* | 6 | 6 |
| Asian | - | 5 | 6 |
| Native Hawaiian/Other Pacific Islander | - | \#* | \# |
| American Indian/Alaska Native | 1* | 1 | 1 |
| Two or more races | 1* | 3* | 3 |
| Gender |  |  |  |
| Male | 50* | 51 | 51 |
| Female | 50* | 49 | 49 |
| Eligibility for National School Lunch Program |  |  |  |
| Eligible | 40* | 48 | 47 |
| Not eligible | 54* | 45 | 46 |
| Information not available | 6 | 7 | 7 |
| Highest level of parental education |  |  |  |
| Did not finish high school | 7* | 7 | 7 |
| Graduated from high school | 17* | 15* | 14 |
| Some education after high school | 16* | 15* | 14 |
| Graduated from college | 49* | 52* | 54 |
| Type of school |  |  |  |
| Public | 91 | 92 | 92 |
| Private: Catholic | 4 | 3 | 4 |
| Charter school |  |  |  |
| Charter | 3* | 5 | 5 |
| Public, noncharter | 97* | 95 | 95 |
| School location |  |  |  |
| City | 29* | 30 | 30 |
| Suburb | 37* | 41 | 40 |
| Town | 13* | 11 | 10 |
| Rural | 22* | 18 | 19 |
| Region of the country |  |  |  |
| Northeast | 17* | 16 | 16 |
| Midwest | 22 | 21 | 21 |
| South | 37* | 38 | 38 |
| West | 24 | 25 | 24 |
| Status as students with disabilities (SD) |  |  |  |
| SD | 11* | 12* | 13 |
| Not SD | 89* | 88* | 87 |
| Status as English learners (EL) |  |  |  |
| EL | 5* | 6* | 7 |
| Not EL | 95* | 94* | 93 |

— Not available.
\# Rounds to zero.

* Significantly different ( $p<.05$ ) from 2019.

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Prior to 2011, students in the "Two or More Races" category were categorized as "unclassified." For the National School Lunch Program (NSLP) eligibility category, results have been reported since 2003 when the quality of the data on students' eligibility for the program improved. Results are not shown for students who reported that they did not know the highest education level for either of their parents. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. The results for students with disabilities and English learners are based on students who were assessed and cannot be generalized to the total population of such students. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009, 2015, and 2019 Science Assessments.

## National Center for Education Statistics

## 2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

Overall average scores and selected percentile scores in eighth-grade NAEP science: Various years, 2009-2019

| Type of score | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 9}$ |
| :--- | :--- | :--- | :--- | :--- |
| Overall average score | $150^{*}$ | $152^{*}$ | 154 | 154 |
| 10th percentile score | $103^{*}$ | 106 | $109^{*}$ | 106 |
| 25th percentile score | $128^{*}$ | 131 | 133 | 132 |
| 50th percentile score | $153^{*}$ | $155^{*}$ | 157 | 157 |
| 75th percentile score | $175^{*}$ | $176^{*}$ | 178 | 179 |
| 90th percentile score | $192^{*}$ | $193^{*}$ | 195 | 196 |

* Significantly different ( $p<.05$ ) from 2019.

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2009-2019 Science Assessments.

## National Center for Education Statistics

2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results
Average scores and achievement-level results in NAEP science for eighth-grade students, by selected characteristics: Various years, 2009-2019

| Characteristic |  |  |  |  | Percentage of students |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average scale score |  |  |  | Below NAEP Basic |  |  |  | At or above NAEP Basic |  |  |  | At or above NAEP Proficient |  |  |  | At NAEP Advanced |  |  |  |
|  | 2009 | 2011 | 2015 | 2019 | 2009 | 2011 | 2015 | 2019 | 2009 | 2011 | 2015 | 2019 | 2009 | 2011 | 2015 | 2019 | 2009 | 2011 | 2015 | 2019 |
| Race/ethnicity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| White | $162^{*}$ | 163* | 166 | 165 | 22* | 20 | 18* | 20 | ${ }^{78 *}$ | 80 | $82^{*}$ | 80 | 42* | 43* | 47 | 46 | 2* | $2^{*}$ | 3 | 3 |
| Black | ${ }^{126 *}$ | 129* | 132 | 133 | 67* | 63* | 59 | 58 | 33* | 37* | 41 | 42 | $8^{*}$ | 10* | 12 | 14 | \# | \# | \# | \# |
| Hispanic | 132** | 137* | 140 | 141 | 57* | 52* | 48 | 47 | 43* | 48* | 52 | 53 | 12* | 16* | 18 | 20 | \#* | \# | 1 | 1 |
| Asian/Pacific Islander | 160* | 159* | 164 | 167 | 27* | 26* | 21 | 19 | 73* | 74* | 79 | 81 | 41* | 41* | 47 | 50 | $3^{*}$ | $3^{*}$ | 4 | 6 |
| Asian | - | 161* | 166 | 168 | - | 24* | 19 | 18 | - | ${ }^{76 *}$ | 81 | 82 | - | 43* | 49 | 52 | - | $3^{*}$ | 5 | 6 |
| Native Hawaiian/Other Pacific Islander | - | 139 | 138 | 139 | - | 48 | 52 | 46 | - | 52 | 48 | 54 | - | 17 | 18 | 21 | - | \# | 1 | \# |
| American Indian/Alaska Native | 137* | 141 | 139 | 144 | 52 | 49 | 48 | 46 | 48 | 51 | 52 | 54 | 17 | 20 | 16 | 20 | \# | 1 | \# | 1 |
| Two or more races | 151* | 156 | 159 | 159 | 35** | 31 | 26 | 28 | 65* | 69 | 74 | 72 | 29* | 35 | 38 | 39 | 2 | 2 | 3 | 3 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 152* | 154 | 155 | 154 | 35* | 32 | 31* | 33 | 65* | 68 | 69* | 67 | 34* | 35 | 37 | 36 | 2 | 2 | 2 | 3 |
| Female | 148* | 149* | 152 | 153 | 38* | 37* | 33 | 33 | $6^{* *}$ | $63^{*}$ | 67 | 67 | $27^{*}$ | 28* | 31 | 33 | 1* | 1* | 1 | 2 |
| Eligibility for National School Lunch Program |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Eligible | 133* | 137* | 140 | 140 | 57* | 52* | 48 | 48 | 43* | 48* | 52 | 52 | 14* | 16* | 18 | 20 | \# | \# | \# | 1 |
| Not eligible | 161* | 164* | 167 | 166 | $24^{*}$ | 20 | 17* | 19 | ${ }^{76}{ }^{*}$ | 80 | 83* | 81 | 41* | 45* | 49 | 48 | $2^{*}$ | $3^{*}$ | 3 | 4 |
| Information not available | 164 | 164 | 166 | 165 | 20 | 22 | 17 | 19 | 80 | 78 | 83 | 81 | 45 | 43 | 48 | 46 | 3 | 3 | 3 | 3 |
| Highest level of parental education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Did not finish high school | 131* | ${ }^{132 *}$ | 137 | 137 | 59* | 58* | 52 | 52 | 41* | $42^{*}$ | 48 | 48 | 11* | 12* | 15 | 16 | \# | \# | \# | \# |
| Graduated from high school | 139 | 140 | 142 | 140 | 49 | 47 | 46 | 48 | 51 | 53 | 54 | 52 | ${ }^{18 *}$ | 18 | 19 | 20 | \# | \# | \# | 1 |
| Some education after high school | 152* | 153 | 155 | 154 | 33* | 31 | 30 | 31 | ${ }^{67 *}$ | 69 | 70 | 69 | 29 | 30 | 32 | 31 | 1 | 1 | 1 | 1 |
| Graduated from college | 161* | 162 | 165 | 163 | 24* | 23 | 20* | 22 | ${ }^{76 *}$ | 77 | ${ }^{80}$ * | 78 | $42^{*}$ | 44 | 47 | 46 | 3 | 3 | 3 | 3 |
| Type of school |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Public | 149* | 151* | 153 | 153 | 38* | 36 | 33 | 34 | ${ }^{62 *}$ | 64 | 67 | 66 | 29* | 31* | 33 | 33 | ${ }^{1 *}$ | 2* | 2 | 2 |
| Private: Catholic | 163 | 162* | 167 | 167 | 20 | 23 | 15 | 18 | 80 | 77 | 85 | 82 | 42* | 41 | 49 | 48 | 2 | 3 | 2 | 3 |
| Charter school |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Charter | 141 | 146 | 149 | 148 | 48 | 42 | 38 | 41 | 52 | 58 | 62 | 59 | 21 | 24 | 29 | 27 | 1 | 1 | 1 | 1 |
| Public, noncharter | 149* | 151* | 153 | 153 | $38^{*}$ | 35 | 33 | 34 | 62* | 65 | 67 | 66 | 29* | 31* | 33 | 34 | 1* | 2* | 2 | 2 |
| School location |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| City | 142* | 144* | 148 | 147 | 46* | 44* | 40 | 41 | 54* | 56* | 60 | 59 | 24* | 25* | 29 | 29 | 1 | 1 | 2 | 2 |
| Suburb | 154* | 155* | 158 | 158 | 33* | 30 | 28 | 29 | 67* | 70 | 72 | 71 | 34* | 36* | 38 | 39 | 2 | 2 | 2 | 3 |
| Town | 149* | 153 | 154 | 153 | 37 | 33 | 31 | 33 | 63 | 67 | 69 | 67 | $28^{*}$ | 32 | 32 | 32 | 1 | 1 | 1 | 2 |
| Rural | 154 | 156 | 156 | 156 | 31 | 29 | 28 | 30 | 69 | 71 | 72 | 70 | 33 | 35 | 36 | 35 | 1 | 1 | 1 | 2 |
| Region of the country |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Northeast | 154 | 153 | 156 | 155 | 32 | 33 | 30 | 31 | 68 | 67 | 70 | 69 | 35 | 34 | 36 | 37 | 2 | 2 | 2 | 3 |
| Midwest | 155* | 156 | 157 | 157 | 30 | 29 | 28 | 29 | 70 | 71 | 72 | 71 | $36^{*}$ | 36 | 37 | 38 | 2 | ${ }^{\text {* }}$ | 2 | 3 |
| South | 148* | 151* | 154 | 154 | 39* | 35 | 32 | 33 | ${ }^{61 *}$ | 65 | 68 | 67 | $28^{*}$ | 31* | 34 | 34 | 1 | 2 | 2 | 2 |
| West | 144* | 147 | 150 | 150 | 43* | 40 | 36 | 37 | 57* | 60 | 64 | 63 | 26* | 28 | 31 | 30 | 1 | 1 | 2 | 2 |
| Status as students with disabilities (SD) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| SD | 123* | 124 | 124 | 125 | 66 | 66 | 66 | 65 | 34 | 34 | 34 | 35 | 11 | 11 | 11 | 13 | \# | \# | \# | \# |
| Not SD | 153* | 155* | 158 | 158 | 33** | 31* | 28 | 28 | ${ }^{67 *}$ | 69* | 72 | 72 | 33* | 34** | 37 | 38 | 2* | 2* | 2 | 2 |
| Status as English learners (EL) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EL | 103* | 106* | 110 | 111 | 86* | 83 | 81 | 81 | 14* | 17 | 19 | 19 | 2 | 3 | 4 | 4 | \# | \# | \# | \# |
| Not EL | 153* | 154* | 157 | 157 | 34* | 32* | 29 | 29 | ${ }^{66^{*}}$ | 68* | 71 | 71 | 32* | 34** | 36 | 37 | 2* | $2^{*}$ | 2 | 2 |

## - Not available.

\# Rounds to zero

* Significantly different ( $p<.05$ ) from 2019

 for students with disabilities and English learners are based on students who were assessed and cannot be generalized to the total population of such students. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 2009-2019 Science Assessments.


## National Center for Education Statistics

2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

| Characteristic | Percentage of students |  |  |
| :---: | :---: | :---: | :---: |
|  | 2009 | 2015 | 2019 |
| Race/ethnicity |  |  |  |
| White | 60* | 56* | 52 |
| Black | 15* | 14 | 13 |
| Hispanic | 17* | 21* | 25 |
| Asian/Pacific Islander | 7 | 6 | 6 |
| Asian | - | 5 | 6 |
| Native Hawaiian/Other Pacific Islander | - | \# | \# |
| American Indian/Alaska Native | 1 | 1 | 1 |
| Two or more races | 1* | 2* | 3 |
| Gender |  |  |  |
| Male | 50 | 51 | 50 |
| Female | 50 | 49 | 50 |
| Eligibility for National School Lunch Program |  |  |  |
| Eligible | 28* | 39 | 40 |
| Not eligible | 64* | 53 | 53 |
| Information not available | 8 | 8 | 7 |
| Highest level of parental education |  |  |  |
| Did not finish high school | 8* | 9 | 9 |
| Graduated from high school | 18* | 17 | 16 |
| Some education after high school | 22* | 21* | 19 |
| Graduated from college | 49* | 49* | 51 |
| Type of school |  |  |  |
| Public | 91 | 92 | 92 |
| Private: Catholic | $\ddagger$ | 4 | $\ddagger$ |
| Charter school |  |  |  |
| Charter | 2* | 3 | 4 |
| Public, noncharter | 98* | 97 | 96 |
| School location |  |  |  |
| City | 30 | 29 | 29 |
| Suburb | 36* | 41 | 40 |
| Town | 11 | 11 | 11 |
| Rural | 22* | 19 | 20 |
| Region of the country |  |  |  |
| Northeast | $\ddagger$ | 18 | 17 |
| Midwest | $\ddagger$ | 21 | 21 |
| South | $\ddagger$ | 37 | 38 |
| West | $\ddagger$ | 25 | 24 |
| Status as students with disabilities (SD) |  |  |  |
| SD | 8* | 10 | 11 |
| Not SD | 92* | 90 | 89 |
| Status as English learners (EL) |  |  |  |
| EL | 3* | 3* | 4 |
| Not EL | 97* | 97* | 96 |

- Not available.
\# Rounds to zero.
$\ddagger$ Reporting standards not met. Sample size insufficient to permit a reliable estimate
* Significantly different ( $p<.05$ ) from 2019.

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Prior to 2011, students in the "Two or More Races" category were categorized as "unclassified." For the National School Lunch Program (NSLP) eligibility category, results have been reported since 2003 when the quality of the data on students' eligibility for the program improved. Results are not shown for students who reported that they did not know the highest education level for either of their parents. SD includes students identified as having either an Individualized Education Program or protection under Section 504 of the Rehabilitation Act of 1973. The results for students with disabilities and English learners are based on students who were assessed and cannot be generalized to the total population of such students. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009, 2015, and 2019 Science Assessments

## National Center for Education Statistics

## 2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

Overall average scores and selected percentile scores in twelfth-grade NAEP science: 2009, 2015, and 2019

| Type of score | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 5}$ | $\mathbf{2 0 1 9}$ |
| :--- | :--- | :--- | :--- |
| Overall average score | 150 | 150 | 150 |
| 10th percentile score | $104^{*}$ | 103 | 100 |
| 25th percentile score | 126 | 126 | 125 |
| 50th percentile score | 151 | 151 | 151 |
| 75th percentile score | 174 | 176 | 176 |
| 90th percentile score | 194 | 196 | 197 |

* Significantly different ( $p<.05$ ) from 2019.

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009, 2015, and 2019 Science Assessments.

## National Center for Education Statistics

2019 Science Grades 4, 8, and 12 Assessment Report Card: Summary Data Tables for National Sample Sizes, Participation Rates, Proportions of SD and EL Students Identified, Accommodation Types, Demographics, and Performance Results

## Average scores and achievement-level results in NAEP science for twelfth-grade students, by selected characteristics: 2009, 2015, and 2019

| Characteristic | Average scale score |  |  | Percentage of students |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Below NAEP Basic |  |  | At or above NAEP Basic |  |  | At or above NAEP Proficient |  |  | At NAEP Advanced |  |  |
|  | 2009 | 2015 | 2019 | 2009 | 2015 | 2019 | 2009 | 2015 | 2019 | 2009 | 2015 | 2019 | 2009 | 2015 | 2019 |
| Race/ethnicity |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| White | 159 | 160 | 161 | 28 | 28 | 28 | 72 | 72 | 72 | 27* | 29 | 30 | 2 | 2 | 3 |
| Black | 125 | 125 | 125 | 71 | 70 | 69 | 29 | 30 | 31 | 4 | 6 | 6 | \# | \# | \# |
| Hispanic | 134 | 136 | 136 | 58 | 56 | 56 | 42 | 44 | 44 | 8 | 9 | 10 | \# | \# | \# |
| Asian/Pacific Islander | 164 | 166 | 164 | 27 | 26 | 28 | 73 | 74 | 72 | 36 | 38 | 39 | 4 | 5 | 6 |
| Asian | - | 167 | 166 | - | 25 | 27 | - | 75 | 73 | - | 39 | 40 | - | 5 | 6 |
| Native Hawaiian/Other Pacific Islander | - | $\ddagger$ | 137 | - | $\ddagger$ | 58 | - | $\ddagger$ | 42 | - | $\ddagger$ | 14 | - | $\ddagger$ | 1 |
| American Indian/Alaska Native | 144 | 135 | 142 | 47 | 58 | 51 | 53 | 42 | 49 | 13 | 11 | 13 | \# | \# | 1 |
| Two or more races | 151 | 156 | 156 | 37 | 32 | 34 | 63 | 68 | 66 | 22 | 25 | 28 | 1 | 2 | 2 |
| Gender |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 153 | 153 | 151 | 37 | 38 | 39 | 63 | 62 | 61 | 24 | 25 | 25 | 2 | 2 | 2 |
| Female | 147 | 148 | 148 | 42 | 42 | 42 | 58 | 58 | 58 | 18 | 19 | 19 | 1 | 1 | 1 |
| Highest level of parental education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Did not finish high school | 131 | 131 | 132 | 62 | 62 | 59 | 38 | 38 | 41 | 6 | 6 | 8 | \# | \# | \# |
| Graduated from high school | 138 | 136 | 135 | 53 | 55 | 56 | 47 | 45 | 44 | 10 | 11 | 10 | \# | \# | \# |
| Some education after high school | 147 | 148 | 147 | 43 | 41 | 43 | 57 | 59 | 57 | 15 | 17 | 17 | 1 | 1 | 1 |
| Graduated from college | 161 | 162 | 161 | 27 | 27 | 29 | 73 | 73 | 71 | 31 | 33 | 32 | 2 | 3 | 3 |


| Public | 149 | 149 | 149 | 41 | 41 | 41 | 59 | 59 | 59 | 20 | 21 | 22 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Private: Catholic | $\ddagger$ | 167 | $\ddagger$ | $\ddagger$ | 22 | $\ddagger$ | $\ddagger$ | 78 | $\ddagger$ | $\ddagger$ | 37 | $\ddagger$ | $\ddagger$ |


| Charter school |
| :--- |
| Charter |
| Public, noncharter |
| School location |
| City |
| Suburb |
| Town |
| Rural |


| Region of the country |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Northeast | $\ddagger$ | 153 | 151 | $\ddagger$ | 37 | 40 | $\ddagger$ | 63 | 60 | $\ddagger$ | 26 | 25 | $\ddagger$ | 2 | 2 |
| Midwest | $\ddagger$ | 156 | 153 | $\ddagger$ | 33 | 36 | $\ddagger$ | 67 | 64 | $\ddagger$ | 26 | 25 | $\ddagger$ | 2 | 2 |
| South | $\ddagger$ | 147 | 147 | $\ddagger$ | 44 | 44 | $\ddagger$ | 56 | 56 | $\ddagger$ | 19 | 20 | $\ddagger$ | 1 | 1 |
| West | $\ddagger$ | 148 | 149 | $\ddagger$ | 42 | 41 | $\ddagger$ | 58 | 59 | $\ddagger$ | 20 | 21 | $\ddagger$ | 1 | 2 |


| SD | 121 | 124 | 122 | 70 | 71 | 71 | 30 | 29 | 29 | 6 | 9 | 8 | \# | 1 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Not SD | 153 | 153 | 153 | 37 | 36 | 37 | 63 | 64 | 63 | 22 | 23 | 24 | 2 | 2 | 2 |
| Status as English learners (EL) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| EL | 104 | 105 | 99 | 88 | 86 | 91 | 12 | 14 | 9 | 1 | 2 | 1 | \# | \# | \# |
| Not EL | 151 | 152 | 152 | 38 | 38 | 38 | 62 | 62 | 62 | 21 | 23 | 23 | 1 | 2 | 2 |

- Not avaliable.
\# Rounds to zero.
* Significantly different ( $p<.05$ ) from 2019

NOTE: In 2019, the digitally based NAEP science assessment was administered for the first time. The 2019 science results include results from students who took the digitally based assessment (DBA) and students who took the paper-based assessment (PBA). Black includes African American, Hispanic includes Latino, and Pacific Islander includes Native Hawaiian. Race categories exclude Hispanic origin. Prior to 2011, students in the "Two or More Races" category were categorized as "unclassified." Because students' eligibility for NsLP may be underreported at grade 12 , the NSLP results at grade 12 are not included in this table. Results are not shown for students who reported that they did not know the highest education level for either of their parents. SD includes students identified as having either an Individualized Education Program or protection under Section SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2009, 2015, and 2019 Science Assessments.

