## Terry School District

# Montana Criterion Reference Test Analysis-Science 

Spring 2018 Testing

## Table of Contents

Introduction ..... 2
Summary of CRT Data Analysis Results ..... 3
CRT Test Results ..... 4
District Science Proficiency Compared to Montana ..... 4
Proficiency of All Students Tested Each Year ..... 5
Gender Proficiency in 2013-2018 ..... 5
Male and Female Proficiency Compared to Montana by Grade ..... 6
Special Education Proficiency ..... 7
4th Grade CRT Results ..... 7
$8^{\text {th }}$ Grade CRT Results ..... 8
$10^{\text {th }}$ Grade CRT Results ..... 8
Class of 2019 - Tracking Results Each Year on the CRT ..... 9
Class of 2020 - Tracking Results Each Year on the CRT ..... 9
Class of 2021 - Tracking Results Each Year on the CRT ..... 10
Class of 2022 - Tracking Results Each Year on the CRT ..... 10
Grade 4 Scoring on the Standards in 2018 ..... 11
Grade 8 Scoring on the Standards in 2018 ..... 11
Grade 10 Scoring on the Standards in 2018 ..... 12
Overall Student Performance by Standard. ..... 12
Overall Student Performance by Grade on the Science Standards ..... 13
Student Scoring on the Standards Over the Last Three Years ..... 13
Grade 4 Student Scoring on the Standards Over the Last Three Years ..... 14
Grade 8 Student Scoring on the Standards Over the Last Three Years ..... 14
Grade 10 Student Scoring on the Standards Over the Last Three Years ..... 15
Male Student Scoring on the Standards in 2018 by Grade ..... 15
Male Student Scoring on the Standards in 2018 by Standard. ..... 16
Female Student Scoring on the Standards in 2018 by Grade. ..... 16
Female Student Scoring on the Standards in 2018 by Standard ..... 17
Student Scoring on the Standards in 2018 by Gender ..... 17

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This report contains data analysis of the Terry District student performance on the Criterion Reference Test. The CRT state achievement test is given each year to grades $4,8 \& 10$ for science. The first section of this report provides a summary of analysis results from the data and conclusions in this document. The report documents science CRT results for 2018 by grade level for students in the district compared to the student profile for the entire state of Montana. The analysis utilizes the percentage of students scoring proficient and advanced in the Terry District compared to the state wide results for the same group. This report provides the district with a year by year comparison of proficiency district wide in science along with an overall view of results on the CRT test. Subgroups of sufficient size are analyzed to show proficiency (Gender, Special Education, etc.). The report compares results for each grade level over the years the test has been administered and includes tracking results for classes through each grade level where they took the test. District CRT results for 2018 are compiled for each Montana Science Standard. The percentage of correct responses by all district students at each grade is shown by specific Montana Standard and compared to previous years. The state did not release any specific questions or open response questions from the test this year, so no examples are listed.
$>$ The Terry District scored at or higher than the state profile for science in grade 8. Grade 8 scored the highest with $78 \%$ proficient in 2018 . Science results for the district were above the state results in 2018.
$>$ The district proficiency scores were up $2 \%$ from $61 \%$ in 2017 to $63 \%$ in 2018. The district has averaged $59 \%$ over the test years.
$>$ District male students scored higher than female students and scored above the state in 2018.
$>$ District females scored $44 \%$ proficient in 2018 and scored at the state in grade 8. Males in the district scored $92 \%$ proficient and were higher than the state in all grades.
$>$ Fourth grade students in the district scored $64 \%$ proficient in 2018 down from $77 \%$ in 2017 and $40 \%$ in 2016.
$>$ In 2018 the $8^{\text {th }}$ grade results increased to $78 \%$ up from $70 \%$ in 2017 and were $11 \%$ above the state results.
$>$ Tenth grade results were up in 2018 to $43 \%$ proficient compared to $30 \%$ in 2017 and were $2 \%$ below the state results of $45 \%$ proficiency.
$>$ Grade 4 students scored the highest on standard 2 (Physical Science) and the lowest on standard 1 (Science Investigations) in 2018.
$>$ Grade 8 students scored the highest on standard 3 (Life Science) and the lowest on standard 2 (Physical Science) in 2018.
$>$ Grade 10 students scored the highest on standard 4 (Earth and Space Science) and the lowest on standard 2 (Physical Science) in 2018.
$>$ All district students scored the highest on standard 3 (Life Science) and the lowest on standard 1 (Science Investigations) in 2018.
$>$ Grade 8 scored the highest on the standards and grade 4 scored the lowest.
$>$ District students scored higher on the standards from 2016 to 2018 and showed the most improvement in Life Science over the last 3 years.
$>$ Grade 4 students improved in Physical, Life Science, and Earth and Space Science over the last 3 years.
$>$ Grade 8 students have shown improvement in all areas of science over the last 3 years.
$>$ Grade 10 students have shown excellent overall improvement since 2016 on the standards.
$>$ Male students scored the highest in grade 10 and the lowest in grade 4 overall on the standards.
$>$ Male students scored the highest on standard 2 (Physical Science) while scoring the lowest on standard 1 (Science Investigations).
$\Rightarrow$ Female students scored the highest in grade 8 and the lowest in grade 4 overall on the standards.
$>$ Female students scored the highest on standard 3 (Life Science) and the lowest on standard 2 (Physical Science).
$>$ District male students scored higher than female students overall on the standards.

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## District Science Proficiency Compared to Montana

The following chart shows the percent of proficient/advanced students in the district in 2018 compared to the same group in Montana. The Terry District scored at or higher than the state profile for science in grade 8 . Grade 8 scored the highest with $78 \%$ proficient in 2018 . Science results for the district were above the state results in 2018.


## Proficiency of All Students Tested Each Year

The following chart shows the proficiency of all students tested in science from 2008 through 2018 compared to the state. The district proficiency scores were up $2 \%$ from $61 \%$ in 2017 to $63 \%$ in 2018. The district has averaged $59 \%$ over the test years.


## Gender Proficiency in 2013-2018

The following chart shows the proficiency of males and females from 2013 to 2018 on the CRT test. District male students scored higher than female students and scored above the state in 2018.


Male and Female Proficiency Compared to Montana by Grade
The following charts show male and female proficiency compared to Montana by grade in 2018. District females scored $44 \%$ proficient in 2018 and scored at the state in grade 8. Males in the district scored $92 \%$ proficient and were higher than the state in all grades.



## Special Education Proficiency

Special education students in the district scored 50\% proficient in 2018 up $0 \%$ from 2017. Special education students state wide averaged $28 \%$ proficient in 2018.


## 4th Grade CRT Results

Fourth grade students in the district scored 64\% proficient in 2018 down from 77\% in 2017 and $40 \%$ in 2016. Fourth grade students in the district scored $5 \%$ lower than the state in 2018.


## $8^{\text {th }}$ Grade CRT Results

The following chart shows $8^{\text {th }}$ grade science CRT results from 2008 through 2018. In 2018 the $8^{\text {th }}$ grade results increased to $78 \%$ up from $70 \%$ in 2017 and were $11 \%$ above the state results.


## $10^{\text {th }}$ Grade CRT Results

The following chart shows tenth grade science CRT results from 2008 through 2018. Tenth grade results were up in 2018 to $43 \%$ proficient compared to $30 \%$ in 2017 and were $2 \%$ below the state results of $45 \%$ proficiency.


## Class of 2019 - Tracking Results Each Year on the CRT

The following chart shows the results of the class of 2019 on the CRT Science test when they were in grades $4,8 \& 10$. The class shows a decrease from $4^{\text {th }}$ grade to $10^{\text {th }}$ grade in science proficiency.


## Class of 2020 - Tracking Results Each Year on the CRT

The following chart shows the results of the class of 2020 on the CRT Science test when they were in grades $4,8 \& 10$. The percentage proficient was the same for the class in 2018 was nearly at the state results.


## Class of 2021 - Tracking Results Each Year on the CRT

The following chart shows the results of the class of 2021 on the CRT Science test when they were in grades $4 \& 8$. These students increased the rate of proficiency from grade 4 to 8 and moved above the state results.


## Class of 2022 - Tracking Results Each Year on the CRT

The following chart shows the results of the class of 2022 on the CRT Science test when they were in grades $4 \& 8$. The results show an increase in proficiency from grade 4 to grade 8 .


## Grade 4 Scoring on the Standards in 2018

The chart below shows all district students in grade 4 by the percent of correct responses on each of the science standards 1-4. Grade 4 students scored the highest on standard 2 (Physical Science) and the lowest on standard 1 (Science Investigations) in 2018.


## Grade 8 Scoring on the Standards in 2018

The chart below shows all district students in grade 8 by the percent of correct responses on each of the science standards 1-4. Grade 8 students scored the highest on standard 3 (Life Science) and the lowest on standard 2 (Physical Science) in 2018.


## Grade 10 Scoring on the Standards in 2018

The chart below shows all district students in grade 10 by the percent of correct responses on each of the science standards 1-4. Grade 10 students scored the highest on standard 4 (Earth and Space Science) and the lowest on standard 2 (Physical Science) in 2018.


## Overall Student Performance by Standard

The following chart shows overall performance by students in each grade on the science standards. All district students scored the highest on standard 3 (Life Science) and the lowest on standard 1 (Science Investigations) in 2018.

| All Students Overall Results on the Standards |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 100.0\% |  |  |  |  |
| 90.0\% |  |  |  |  |
| 80.0\% |  |  |  |  |
| ¢ 70.0\% |  |  |  |  |
| 60.0\% |  |  |  |  |
| ¢ 50.0\% |  |  |  |  |
| ( 40.0\% |  |  |  |  |
| 30.0\% |  |  |  |  |
| 20.0\% |  |  |  |  |
| 10.0\% |  |  |  |  |
|  |  |  |  |  |
|  | 41.8\% | 67.5\% | 65.2\% | 55.3\% |
|  | 69.4\% | 59.5\% | 46.4\% | 60.6\% |
|  | 62.2\% | 69.0\% | 65.2\% | 65.0\% |
|  | 51.5\% | 63.5\% | 66.1\% | 58.8\% |

## Overall Student Performance by Grade on the Science Standards

The following chart shows overall performance by grade on the science standards. Grade 8 scored the highest on the standards and grade 4 scored the lowest. Grade 4 had the highest score on a standard in Physical Science and grade 4 had the lowest on Investigations.


## Student Scoring on the Standards Over the Last Three Years

The chart below shows student scoring over the last three years on the science standards by standard. District students scored higher on the standards from 2016 to 2018 and showed the most improvement in Life Science over the last 3 years.


## Grade 4 Student Scoring on the Standards Over the Last Three Years

The chart below shows grade 4 student scoring over the last 3 years on the science standards by standard. Grade 4 students improved in Physical, Life Science, and Earth and Space Science over the last 3 years.


## Grade 8 Student Scoring on the Standards Over the Last Three Years

The chart below shows grade 8 student scoring over the last 3 years on the science standards by standard. Grade 8 students have shown improvement in all areas of science over the last 3 years.


## Grade 10 Student Scoring on the Standards Over the Last Three Years

The chart below shows grade 10 student scoring over the last 3 years on the science standards by standard. Grade 10 students have shown excellent overall improvement since 2016 on the standards.


Male Student Scoring on the Standards in 2018 by Grade
The charts below show all district male student results on the standards. Male students scored the highest in grade 10 and the lowest in grade 4 overall on the standards.


## Male Student Scoring on the Standards in 2018 by Standard

The charts below show all district male student results on the standards. Male students scored the highest on standard 2 (Physical Science) while scoring the lowest on standard 1 (Science Investigations).

|  | Male Students Overall Results on the Standards |
| :---: | :---: | :---: | :---: | :---: |

## Female Student Scoring on the Standards in 2018 by Grade

The charts below show all district female student results on the standards. Female students scored the highest in grade 8 and the lowest in grade 4 overall on the standards.


## Female Student Scoring on the Standards in 2018 by Standard

The charts below show all district female student results on the standards. Female students scored the highest on standard 3 (Life Science) and the lowest on standard 2 (Physical Science).


## Student Scoring on the Standards in 2018 by Gender

The chart below shows all district students results on the standards by gender. District male students scored higher than female students overall on the standards.


