

**MONITORING REPORT: Policy R-2.3 (Academic Achievement: Science)**

**PHASE ONE: Interpretation, Benchmark Data, and Goals**

**DATE: June 2018**

**Policy**

**All students will master the skills and demonstrate proficiency in each required discipline and electives:**

**Discipline: Science**

**Interpretation**

We understand this policy expresses the School Board’s expectation that all students in each grade band will demonstrate mastery of state-defined science content, concepts, and practices as measured by state and/or local assessments – or they will provide evidence they are making reasonable progress toward such mastery.

**Benchmark Data**

At the ELEMENTARY level, Ferndale’s science program is based on a Science Material Center (SMC) kit program, which comes out of the Educational Service District 189 in Anacortes. The SMC kit program is not aligned to Next Generation Science Standards (NGSS) and does not come with a formal assessment component. Therefore, we do not at this time have reliable science assessment data on our students in grades K-4. The first formal science assessment we administer at the elementary level is in grade 5.

Students in grade 5 took the Washington Comprehensive Assessment of Science (WCAS) for the first time in spring 2018 (the results of which have not yet been released). This assessment fulfills the federal requirement that we test students in science at least once at each level: elementary, middle, and high school. The WCAS measures student proficiency of the Washington State 2013 K-12 Science Learning Standards. Prior to this year, students in grade 5 were assessed in science using the Measurement of Student Progress (MSP), which is also based on the Washington State 2013 K-12 Science Learning Standards.

Science achievement data from the 2016-2017 Measurement of Student Progress (MSP) assessment of grade 5 students are displayed in the following chart.

Ferndale School District <b>MSP GRADE 5 SCIENCE 2016-2017*</b> (Current Washington Comprehensive Assessment of Science data is not yet available.) Percentage of grade 5 students ...					
Level 1 Well Below Standard	Level 2 Below Standard	Level 3 Meets Standard	Level 4 Exceeds Standard	Total Meets or Exceeds 2016-2017	Goal for 2018-2019
16.7%	26.5%	33.9%	22.5%	56.4%	62.0%

At the MIDDLE level, Ferndale students are enrolled in a science class each year, the content of which is based on the broad areas of Life, Earth and Physical Science. Teachers evaluate student learning using classroom-based assessments aligned to the state science standards. At this time, course grades are the primary measure of student proficiency in grades 6 and 7.

Students in grade 8 took the Washington Comprehensive Assessment of Science (WCAS) for the first time in spring 2018 (the results of which have not yet been released). Prior to this year, students in grade 8 were assessed in science using the Measurement of Student Progress (MSP), which is also based on the Washington State 2013 K-12 Science Learning Standards.

Science achievement data from the 2016-2017 Measurement of Student Progress (MSP) assessment of grade 8 students are displayed in the following chart.

Ferndale School District <b>MSP GRADE 8 SCIENCE 2016-2017*</b> (Current Washington Comprehensive Assessment of Science data is not yet available.) Percentage of grade 8 students ...					
Level 1 Well Below Standard	Level 2 Below Standard	Level 3 Meets Standard	Level 4 Exceeds Standard	Total Meets or Exceeds 2016-2017	Goal for 2018-2019
10.6%	20.8%	41.1%	27.3%	68.4%	75.2%

At the HIGH SCHOOL level, Ferndale’s science program is content-based (Biology, Chemistry, Physics, etc.). Teachers evaluate student learning using classroom-based assessments and course grades are the primary measure of student proficiency. The one exception is that students in grade 10 take the state’s Biology End Of Course assessment in the spring. As the state fully transitions to the new Washington State Comprehensive Assessment of Science (WCAS) and Next Generation Science Standards, this End Of Course Biology Assessment will be eliminated.

Science achievement data from the 2016-2017 End Of Course (EOC) Biology assessment of grade 10 students are displayed in the following chart.

Ferndale School District <b>END OF COURSE GRADE 10 BIOLOGY 2016-2017*</b> <i>(Current Washington Comprehensive Assessment of Science data is not yet available.)</i> Percentage of grade 10 students ...					
Level 1 Well Below Standard	Level 2 Below Standard	Level 3 Meets Standard	Level 4 Exceeds Standard	Total Meets or Exceeds 2016-2017	Goal for 2018-2019
16.3%	21.4%	45.4%	16.7%	62.1%	68.3%

**Goals**

Our goal for the next year is to increase the percentage of students meeting or exceeding standard in science, as measured by the Washington Comprehensive Assessment of Science (WCAS) or the End of Course Biology Assessment, by at least 10% at each grade level, which would result in the numbers in the green shaded column in the charts above. Although we recognize a 10% increase does not seem to go far enough toward closing the gap between where we currently are and the goal of ALL students achieving mastery, it is the increase recommended by the Office of the Superintendent of Public Instruction for Washington State as reasonable progress.

**\*NOTE:** As our state transitions from the MSP (grades 5 and 8) and the Biology EOC (grade 10 to the new Washington State Comprehensive Assessment of Science (WCAS), we have experienced a delay in the release of 2017-2018 science scores. As a result, the scores in this report are more than a year old. The new scores, when we receive them, will likely impact our 2018-2019 Science Goal(s).

**\*NOTE:** The data in this report was generated by student performance on measurement tools our state is no longer employing (MSP and EOC). The new data we receive will be generated by student performance on a new measurement tool (WCAS). While all these tests are based on the same standards and should therefore yield apples-to-apples results, we may need to allow for a period of calibration.