



Memorial Composite High School

June Diploma Examinations

Summary Results Report 2016 – 2017

EXECUTIVE SUMMARY

The chart on page 6 reports Memorial Composite High School student achievement on Diploma Examinations. Individual subjects are provided in historical detail on the pages that follow. Some considerations:

Biology 30 results indicate that our students are well prepared for the exam and are achieving results exceeding the provincial diploma marks:

- Results indicate that our students are achieving above the province in many areas of the exam.
- Strategies like using cards and feedback loop questions for endocrine system, reviewing all units at the end of the semester and relating the units and systems together as much as possible is helping students succeed.
- Areas to focus to improve include: spending more time on ploidy and life cycles on unusual organisms and more time needs to be spent in the last unit on Hardy-Weinberg and how to determine the number of recessive alleles or traits and technology questions: gene mapping, genetic engineering, DNA fingerprinting etc.

Chemistry 30 results indicate that our students are well prepared for the Diploma Exam:

- Our students' results on the Diploma Exam are higher than the provincial diploma marks.
- Student success can be contributed to the use of labs to reinforce concepts taught in the classroom. Our new chemistry teachers will demonstrate similar use of former teachers' items and more examples focusing on real-life situations. They will also maintain frequency of demos and labs for electrolytic cells.
- The Standard of Excellence results for our students have declined this year leaving them notably below the province.
- Area(s) of focus to improve subject instruction relative to Diploma Exams include building a strong foundation for Chemistry 20 by teaching how to read titration tables, more kinaesthetic variable and lab frequency, review class titration in Chemistry 30, more labs in calorimetry and demonstrating how to read questions properly and how to apply what you know to the information given.

English 30-1 results display that students are well prepared for the exam but the Standard of Excellence seems inconsistent:

- We are ahead of the provincial averages on the reading comprehension portions of the exam in both January and June.

- In June, Memorial students achieved a higher percentage of Acceptable Standard than the province. We surpassed the province by 2.1%
- Our Standard of Excellence is below the provincial average for course mark and the Diploma Exam in June but is higher in January.
- There have been no significant differences when comparing school results to the provincial standards over the past three years.
- Given the fact that we have many students scoring 3.0 (Satisfactory) on key parts of Part A, it will be important to help these students make the necessary improvement to achieve Proficient and Standard of Excellence. The areas with the greatest student success are “Presentation” for the Personal Response to Text(s), “Matters of Correctness” and “Matters of Choice” for the Critical/Analytical. This is consistent for January and June results.
- When looking at Part B results, it is important to recognize where our students are excelling in their multiple-choice responses. Our students consistently find success in the questions that deal with relevance of context. Our students can also recognize literary techniques and understand the purpose behind an author’s use of the techniques.
- When looking at Part B results, it is also important to recognize where our students did not perform so well. Our students have trouble with questions that require them to recognize tone shifts which lead to theme development. A strategy we could implement would be to have students focus on final stanzas and endings of poems. Students also have a hard time with questions based on non-fiction texts (this is more evident in June than in January). Teachers will look at incorporating a variety of non-fiction texts for analysis.

English 30-2 results display that our students are well prepared for this exam and are successful in their results:

- We remain above the province, in both January and June, on both Part A and B (the written and the reading comprehension) components of the exam.
- When looking at the Diploma Exam results (including the data on last 3 years), we discovered that the number of students achieving the Acceptable Standard continues to grow and we exceed the province in this area. Our course completion rates are high.
- Our percentage of students who achieved Standard of Excellence has increased over the past year.
- Our students, in June 2017, are below the provincial average in Standard of Excellence on all of the categories in all three writing assignments (Visual Reflection, Literary Exploration, and Persuasive Writing in Context). With this in mind, working on assisting students to be better at integrating and synthesizing supporting evidence will be important. One strategy to help in this area would be to develop tasks around strategies like “Point-Context-Proof-Explanation” that help students scaffold into an essay.
- When looking at the results from Part B, we recognize that our students are excelling in questions that deal with the recognition of poetic devices. We are well above the provincial average when students are asked to refer to non-fiction texts.
- An area of concern is the “draft narrative” selection from Part B. A strategy to consider would be to use old Diploma Exam questions to practice draft work and help students to identify

editing choices. Another area of concern seems to be understanding vocabulary and the meaning of the word in a specific context.

Math 30-1 results are equivalent to the province in terms of the Acceptable Standard, but less of our students perform at the Standard of Excellence level:

- First semester results are better than second semester. One possible reason could be that most students that eventually enroll in Calculus, take Math 30-1 in the first semester.
- From 2015-2017, we have scored better than the province at the Acceptable Standard level, but have scored significantly less at the Standard of Excellence on the Diploma Exam. Results can be improved by spending more time enriching the top-end students rather than focusing on the bottom end.
- To continue to have success, teachers have been quite involved at Alberta Education for professional development, field test validation, item writing, and Diploma Exam verification. This has seemed to have a positive impact on students' diploma results.
- We have seen an increase in Trigonometry results from last year, which was a focus from last year. Sharing best practices has helped students.

Math 30-2 results are above provincial average in both Standard of Excellence, as well as significantly above in Acceptable Standard:

- In years 2015-2017, our diploma marks at the Acceptable Standard have stayed consistently better than the province.
- Over the last two years, our Standard of Excellence has stayed above the provincial average.
- Our areas to improve upon appear to be sinusoidal functions, and counting methods. More review prior to the Diploma Exam may be needed in these areas.
- To continue to have success, teachers have been quite involved at Alberta Education for professional development, Field test validation, item writing, and Diploma Exam verification. This has seemed to have a positive impact on students' diploma results.
- Our students seem to have difficulty on Standard of Excellence questions involving multiple steps. An increased focus on those types of questions in class could help students on the Diploma Exam.

Physics 30 results indicate that are students are being prepared well for the Diploma Exam:

- Our students' achievement on the Diploma Exam are better than the provincial diploma marks.
- Results may be indicative of the following strategies: continue to ask questions that require measuring angles with a protractor in Physics 20, and continue to stress the importance of proper free body diagrams.
- Labs, hands-on activities, and videos are helping our students' success.
- Teachers do feel it is hard to analyze student performance without specific questions to reference.
- Areas of focus to improve subject instruction relative to Diploma Exams include review hand rules and $y=mx+b$ analysis at the end of the course.

Science 30 results indicate that our students who are enrolled in timetabled classes are well prepared for the Diploma Exam:

- MCHS results on the Diploma Exam are higher than the provincial diploma marks.
- Students may increase their achievement in the area of Standard of Excellence with a continued emphasis on diagrams and how to identify structures.
- There was an overall improvement in the Biology unit understanding by maintaining instructional strategies for circulatory systems.
- More work will need to be done with practice of Punnett squares and bacterial resistance.

Social Studies 30-1 results have been below the provincial averages on Standard of Excellence, but above the provincial averages on Acceptable Standard:

- Acceptable Standard has risen (+9.9) but a challenge is a significant drop in Standard of Excellence (-3.9) and participation rates.
- Memorial students are exceeding the provincial average for multiple-choice questions.
- Though not meeting provincial average for written response, the trend has been toward improvement in this area.
- Area(s) of focus to improve subject instruction relative to Diploma Exams with a goal of improving standard of excellence:
 - Continued efforts to focus on literacy in the classroom should support improvement in both written portion and reading comprehension of multiple choice
 - Create instructional design to build competencies which support analysis, evaluation and synthesis
 - Continue to draw on authentic issues to support understanding of political and economic ideologies
 - Recently, the Department has set out curricular expectations at the 10, 20 and 30 levels to increase scaffolding of key concepts as well as competencies through all three grades of Social Studies instruction for deeper learning

Social Studies 30-2 results are consistently exceeding acceptable standard with a high participation rate.

- MCHS students have experienced growth in Standard of Excellence (+3.8).
- MCHS students have exceeded the Acceptable Standard (+6.8) but still fall short on Standard of Excellence (-2.5).
- Students are at the provincial average for written responses and exceeding the average for multiple-choice questions.
- Attention must be made to students who have switched streams and do not understand the different types and expectations when it comes to writing assignments.
- Review diploma outcome results to modify instruction to move in the direction of Standard of Excellence.
- Marks could reflect the students who switch to a lower stream, without understanding of the different writing expectations between the two classes. This could be something to focus on as well. Creating a package for students regarding expectations for all three assignments will help.

- Area(s) of focus to improve subject instruction relative to Diploma exams with a goal of improving standard of excellence:
 - Create instructional design to build competencies which support analysis, evaluation and synthesis
 - Focus on instruction which will have students working with multi-variables to draw a conclusion
 - Mastery Learning Professional Learning Community to focus on improving confidence and competence in the students who take Social Studies 10-2, 20-2 and 30-2.
 - Application of inclusive education strategies of differentiation to encompass all learners.

Memorial Composite High School Diploma Examinations Summary Results Report 2016 - 2017

Successes		Challenges	
MCHS Growth	MCHS Exceeds Province	Province Exceeds MCHS	MCHS Decline
<p>Standard of Excellence</p> <ul style="list-style-type: none"> ● Biology 30 (+7.7) ● English 30-1 (even) ● English 30-2 (+0.5) ● Math 30-1 (+9.6) ● Physics 30 (+7.1) ● Social 30-2 (+3.8) <p>Acceptable Standard</p> <ul style="list-style-type: none"> ● Biology 30 (+1.5) ● Chemistry 30 (+1.8) ● English 30-1 (+2.1) ● Math 30-1 (+9.9) ● Math 30-2 (+2.2) ● Science 30 (+2.6) ● Social 30-1 (+9.9) ● Social 30-2 (+3.2) 	<p>Standard of Excellence</p> <ul style="list-style-type: none"> ● Biology 30 (+5.2) ● English 30-2 (+0.2) ● Math 30-2 (+2.8) ● Physics 30 (+0.1) <p>Acceptable Standard</p> <ul style="list-style-type: none"> ● Biology 30 (+8.2) ● Chemistry 30 (+6.7) ● English 30-1 (+8.4) ● English 30-2 (+5.3) ● Math 30-1 (+5.2) ● Math 30-2 (+14.3) ● Physics 30 (+2.7) ● Social 30-1 (+8.2) ● Social 30-2 (+6.8) 	<p>Standard of Excellence</p> <ul style="list-style-type: none"> ● Chemistry 30 (-8.1) ● English 30-1 (-0.9) ● Math 30-1 (-6.6) ● Science 30 (-6.0) ● Social 30-1 (-4.8) ● Social 30-2 (-2.5) <p>Acceptable Standard</p> <ul style="list-style-type: none"> ● Science 30 (-0.7) 	<p>Standard of Excellence</p> <ul style="list-style-type: none"> ● Chemistry 30 (-4.5) ● Math 30-2 (-2.9) ● Science 30 (-0.7) ● Social 30-1 (-3.9) <p>Acceptable Standard</p> <ul style="list-style-type: none"> ● English 30-2 (-0.8) ● Physics 30 (-2.9)

DIPLOMA EXAMINATIONS

+/- Represents the change in performance from previous year

Subject	MATH 30-1									
Standard	Alberta			Parkland School Div.			MCHS			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	+/-
Acceptable	86.7	91.2	91.4	92.0	94.1	94.4	87.5	92.0	89.3	-2.7
Excellence	32.7	35.0	35.6	36.4	11.8	28.2	32.5	8.0	25.0	+17.0
2017 Participation Amount by number of students				Alberta		PSD		MCHS		
				8,415		71		28		

Subject	MATH 30-2									
Standard	Alberta			Parkland School Div.			MCHS			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	+/-
Acceptable	86.4	91.9	92.0	95.4	90.7	95.6	92.5	86.2	93.6	+7.4
Excellence	17.5	17.4	21.0	20.4	12.4	23.5	13.2	10.8	23.4	+12.6
2017 Participation Amount by number of students				Alberta		PSD		MCHS		
				6,982		136		47		

Subject	BIOLOGY 30									
Standard	Alberta			Parkland School Div.			MCHS			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	+/-
Acceptable	94.1	96.3	96.2	93.9	98.4	96.2	94.3	98.4	100.0	+1.6
Excellence	37.2	39.7	40.4	29.8	35.0	37.1	35.8	36.1	38.1	+2.0
2017 Participation Amount by number of students				Alberta		PSD		MCHS		
				11,824		132		63		

Subject	CHEMISTRY 30									
Standard	Alberta			Parkland School Div.			MCHS			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	+/-
Acceptable	92.8	95.1	95.9	95.9	91.5	97.8	95.3	93.2	100.0	+6.8
Excellence	41.0	42.3	44.1	40.5	36.6	31.1	46.5	38.6	33.3	-5.3
2017 Participation Amount by number of students				Alberta		PSD		MCHS		

	9,894	45	42
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Subject	PHYSICS 30									
Standard	Alberta			Parkland School Div.			MCHS			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	+/-
Acceptable	93.5	96.2	96.5	95.9	95.8	92.4	95.7	88.2	90.7	+2.5
Excellence	39.3	45.4	48.7	30.1	50.0	44.3	26.1	41.2	37.2	-4
2017 Participation Amount by number of students				Alberta		PSD		MCHS		
				5,286		79		43		

Subject	SCIENCE 30									
Standard	Alberta			Parkland School Div.			MCHS			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	+/-
Acceptable	93.6	96.1	96.1	91.7	96.8	100	89.7	100.0	100.0	0.0
Excellence	27.4	30.2	31.5	20.8	19.4	21.3	17.9	17.1	0.0	-17.1
2017 Participation Amount by number of students				Alberta		PSD		MCHS		
				5,325		75		5		

Subject	ENGLISH LANGUAGE ARTS 30-1									
Standard	Alberta			Parkland School Div.			MCHS			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	+/-
Acceptable	96.5	97.6	97.8	98.1	99.5	97.2	97.0	100.0	98.1	-1.9
Excellence	18.2	21.1	21.8	17.5	19.2	24.4	13.6	15.0	24.0	+9.0
2017 Participation Amount by number of students				Alberta		PSD		MCHS		
				14,615		217		104		

Subject	ENGLISH LANGUAGE ARTS 30-2									
Standard	Alberta			Parkland School Div.			MCHS			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	+/-
Acceptable	95.4	96.3	96.1	96.8	98.7	99.3	98.5	98.8	98.8	0.0
Excellence	7.8	8.6	9.1	10.5	9.0	13.3	10.8	9.6	15.5	+5.9
2017 Participation Amount by number of students				Alberta		PSD		MCHS		
				7,197		150		84		

Subject	SOCIAL STUDIES 30-1									
Standard	Alberta			Parkland School Div.			MCHS			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	+/-
Acceptable	97.8	98.9	98.8	99.0	100.0	99.0	98.2	100.0	100.0	+0.0
Excellence	24.2	27.9	28.2	16.5	26.5	26.5	9.1	24.3	21.4	-2.9
2017 Participation Amount by number of students				Alberta			PSD		MCHS	
				10,441			102		42	

Subject	SOCIAL STUDIES 30-2									
Standard	Alberta			Parkland School Div.			MCHS			
	2015	2016	2017	2015	2016	2017	2015	2016	2017	+/-
Acceptable	92.3	94.8	94.2	97.6	98.0	99.4	97.5	98.7	98.9	+0.2
Excellence	12.3	13.2	13.7	13.9	11.2	9.0	12.7	6.6	4.3	-2.3
2017 Participation Amount by number of students				Alberta			PSD		MCHS	
				9,667			178		93	