

# A Guide for Students

Mathematics 30–1  
Mathematics 30–2  
Chemistry 30

Biology 30  
Physics 30  
Science 30

Preparing to Write a Math or Science Diploma Examination 2016



Alberta  Government

This document was written primarily for:

Students	✓
Teachers	
Administrators	
Parents	✓
General Audience	
Others	

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# *Contents*

Design of Diploma Exams.....	1
Preparing for Diploma Exams.....	2
Exam Day.....	2
Using Calculators .....	2
Rescores and Rewrites.....	3
Frequently Asked Questions (FAQ) .....	4
Additional Information .....	6
Contact Information .....	7

This guide has been prepared by Provincial Assessment Sector staff at Alberta Education. We develop the diploma exams and are involved in the assessment of thousands of high school students each year. The purpose of this guide is to provide students with information that will increase their likelihood of success on the diploma exams in math and science.

Guides for Students for diploma-exam subjects other than math and science, as well as additional materials on how to prepare for diploma exams, can be found on the Alberta Education website at [education.alberta.ca](http://education.alberta.ca).

## *Design of Diploma Exams*

Diploma exams in math and science are machine scored and contain both multiple-choice and numerical-response questions. Multiple-choice questions are worth one mark each and require you to select the best answer from the given choices. Numerical-response questions are worth one mark each and require you to fill in a sequence of numbers or record a calculated value on your answer sheet.

The number and types of questions on each math and science diploma exam are shown in the table below.

<b>Subject</b>	<b>Number of Multiple-choice Questions</b>	<b>Number of Numerical-response Questions</b>	<b>Total Number of Machine-scored Questions</b>
Mathematics 30-1	28	12	40
Mathematics 30-2	28	12	40
Biology 30	48	12	60
Chemistry 30	44	16	60
Physics 30	36	14	50
Science 30	39	16	55

Students have 3 hours to complete their math and science diploma exams. Special accommodations are available to some students (e.g. extra time, audio narration, a scribe, etc.). For more information, contact your school administration or counselling department.



## *Preparing for Diploma Exams*

The best way to prepare to write diploma exams is to start with a positive attitude and establish good study habits. Set yourself up for success at the beginning of the course. Attend class regularly, actively participate in classroom and laboratory activities, and complete all assignments. The skills and knowledge that you gain in the course are essential to your success on the diploma exam.

Preparation for diploma exams goes beyond memorization of facts. Be prepared to analyze information, interpret data, and apply your knowledge and skills to new contexts.

Subject-specific sample questions and previous diploma exam questions are available online at <https://questaplus.alberta.ca>.

## *Exam Day*

On exam day, arrive early and get organized. You are responsible for providing your own HB pencil, eraser, and calculator for writing diploma exams. No print or electronic dictionaries, papers, notes, or textbooks are allowed. A ruler and protractor may be used for science exams. For Science 30 and Chemistry 30 exams, a data booklet will be provided. For Biology 30 and Physics 30 exams, data pages are included in the exam booklet.

Remember to relax and do your best. Mark questions that you cannot immediately answer and come back to them later. Pace yourself and answer every question.

For each question, read the instructions, then carefully read the context and the question or questions you will be answering. For multiple-choice questions, read the stem of the question and try to formulate an answer to the question in your mind before looking at the four choices given. Then look at the four choices and find the answer among them. Some questions are more difficult than others and will require you to choose the best answer among several alternatives that seem plausible. For numerical-response questions, pay close attention to the instructions below the question so that your answers are expressed or rounded appropriately with the correct number of digits.

During the administration of diploma exams, students are expected to adhere to the rules found at <http://education.alberta.ca/writing-diploma-exams/rules-for-students/>.

## *Using Calculators*

Math and science diploma exams require the use of an approved calculator. The calculator policy, calculator criteria, and keystrokes required for clearing approved calculators can be found in the [\*General Information Bulletin\*](#) on the Alberta Education website.

## ***Rescores and Rewrites***

You can request that your exam be rescored. Keep in mind that if you do request a rescore, the mark resulting from the rescore will be your final exam mark, even if it is lower than the original mark.

You may also choose to rewrite a diploma exam during regularly scheduled writing sessions. If you rewrite a diploma exam, the highest mark you achieve will be counted.

Math and science diploma exams are offered during the following writing sessions:

<b>Subject</b>	<b>Writing Sessions</b>
Mathematics 30-1	November, January, April, June, August
Mathematics 30-2	January, April (hybrid* only), June, August
Biology 30	November, January, April, June, August
Chemistry 30	November, January, April, June, August
Physics 30	November, January, April, June, August
Science 30	January, April (hybrid* only), June, August

\*Paper copies are sent out, but the exam is answered only online.

Information on rewrites and rescoring, including deadlines, forms, and fees can be found in the [\*General Information Bulletin\*](#) on the Alberta Education website.

## ***Frequently Asked Questions (FAQ)***

### **How much is my diploma exam worth?**

*Your school-awarded mark is worth 70% of your final mark in any course that has a diploma exam. The exam mark is worth the remaining 30% of your final mark.*

### **Do all diploma exams in one subject have the same difficulty?**

*All exams in a given subject are built to the same blueprint specifications and standards, regardless of when they might be administered.*

### **Will all of the curriculum be covered on the diploma exam?**

*Although it is impossible to cover every single outcome in a program of studies on one test, every effort is made to cover as much of it as possible, with the focus on applying your knowledge and skills to contexts you might never have seen before.*

### **Does the diploma exam have more difficult or different content compared to what is learned in class?**

*The diploma exam is based on the program of studies for the course. You will have learned the knowledge and skills outlined in the program of studies, so you should be well prepared for your diploma exam. Sometimes, you will see unfamiliar contexts on the diploma exam, but the understanding you gained in class will have prepared you to integrate your knowledge and skills with the new context so that you can answer the question.*

### **Are all of the questions on the diploma exams new each year?**

*Approximately 20% of the questions on a diploma exam have already been administered. These questions serve as anchor items, which allow exams administered at different writing sessions to be compared to each other. The remaining (approximately 80% of) questions are completely new each time.*

### **Where can I find copies of previously administered diploma exams?**

*Some questions that have appeared on previous diploma exams are available both on Quest A+, Alberta Education's online testing site, and on the Alberta Education website in a section called "Released Materials."*

### **Could there be a mistake on the diploma exam?**

*Diploma exams are developed and reviewed thoroughly and meticulously to very high standards. Should an error occur on a diploma exam, various steps can be taken to address the error. In such rare cases, every effort is made to ensure fairness to students.*

### **Do I even need the context box to answer the question?**

*Yes, you should read each context box carefully, because the information is necessary to correctly answer the question.*

### **Should the number of A, B, C, and D answers be equal?**

*On most diploma exams, the distribution of As, Bs, Cs, and Ds is relatively equal.*

### **Are there trick questions?**

*There are no questions on diploma exams that are designed to trick you.*

**If I do not erase an answer completely, could it affect my score?**

*Although the scanning machines are generally able to differentiate between erased marks and intended marks, it is always in your best interests to erase completely. If you feel that incompletely erased marks may have affected your results, you can apply for a rescore.*

**If I calculate an answer that is not one of the alternatives, should I pick the closest one?**

*Choosing the closest answer is one strategy, but this situation might indicate that you have made a mistake. If you have time, read the context and question over again and try to analyze where you might have made an error.*

**Is the longest answer usually the correct one?**

*The longest answer is not necessarily the correct answer. A good strategy is to read the question and determine the answer for yourself before you look for that answer among the multiple-choice alternatives.*

**If I round an answer incorrectly am I automatically wrong?**

*You should always follow the rounding rules appropriate to your subject area, and read and follow the instructions below each numerical-response question carefully. In certain cases, multiple correct answers are accepted to account for differences in rounding.*

**What happens if I get a negative answer for a numerical-response question?**

*The negative sign will precede the response blank if the correct answer is a negative number. If there is no negative sign in front of the blank and you get a negative answer, read the context of the question over again and try to analyze where you might have made an error.*

**Could there really be more than one right answer?**

*Multiple-choice questions have only one correct answer. Sometimes, you will need to choose the best answer among several that seem plausible. Some, but not all, numerical-response questions have more than one correct answer, but you only need to provide one correct answer to receive the mark for that question.*

**How do I register to write a diploma exam?**

*If you are taking a diploma exam course through an accredited Alberta high school, then your school will register you to write the exam. Some diploma exam sessions require students to pre-register and do not allow students to just walk in and write the exam. Specific rules regarding which sessions and exam-writing centres allow unregistered writing can be found in the [General Information Bulletin](#) on the Alberta Education website.*

**What if I am a mature student?**

*A mature student is a person 19 years of age or older as of September 1 of the current school year, or who already holds a high-school diploma from the Province of Alberta or an equivalent high school diploma.*

*If you are a mature student, you may write a diploma exam without taking the course. You may write the exam in any writing session, but you must fill out a form (Diploma Exam Registration/Rewrite Fee Payment Form) to register for the exam before the deadline. The registration deadline shown on the form varies depending on the writing session you select. You should also decide where you will write the exam. Then, speak to the principal of the high school or exam-writing centre to reserve a space and make sure an exam is available for you.*

**What am I allowed to bring into the exam room?**

*In addition to a pencil and pen, you may bring an approved calculator, a ruler, and a protractor into the exam room. You are not allowed to bring in print materials, including papers, notes, or books, and you are not allowed to bring in electronic devices, including audio players, cellphones, headphones, or other devices.*

**If I look at a cellphone during a diploma exam, will my exam results be disqualified?**

*Cellphones are not permitted in the exam room. If you are in possession of a cellphone, even if it is turned off, or any other unauthorized materials, your diploma exam results could be invalidated.*

**How can I receive accommodations?**

*Accommodations for diploma exams are available and official arrangements must be made well in advance of your diploma exam. Consult your school counsellor or principal for more information.*

**Am I still allowed to bubble in my answers after time is up?**

*No, you are not allowed to fill in bubbles after time is up. Make sure that you have filled in the bubbles on the answer sheet before the end of the exam administration time.*

**Who marks the exams?**

*Math and science diploma exams are machine scored. Rescores are hand scored by staff in the Provincial Assessment Sector of Alberta Education.*

**Will I be penalized if I rewrite a diploma exam?**

*There is no penalty for rewriting a diploma exam. Regardless of the number of times you write a diploma exam, your highest mark will be the one that is counted.*

## ***Additional Information***

More-detailed information about diploma exams is available in the subject-specific information bulletins, which are available on the [Alberta Education website](#).



## *Contact Information*

If you have questions about writing a math or science diploma exam, feel free to contact us.

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