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# Remedial Activities

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College Education

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## History

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| September 2018 | Publication of the <i>Remedial Activities and Activities Conducive to Success</i> document as a replacement to the <i>Remedial Activities</i> document   |
| March 2019     | Adaptation of the remedial activity for Secondary IV History of Québec and Canada to take into account the changes made to the Québec Education Program<br><br>Establishment of a fixed number of periods of instruction for the remedial activities |
| May 2025       | Publication of the document <i>Remedial Activities</i> as a replacement to the <i>Remedial Activities and Activities Conducive to Success</i> document   |

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## Introduction

This document presents the remedial activities that may be offered in colleges. These are determined according to the *College Education Regulations* (CQLR, c. C-29, r. 4).

The objectives and standards for remedial activities are determined by the Minister. These activities allow students to earn college credits that do not count towards a Diploma of College Studies or an Attestation of College Studies. However, these credits are taken into account to determine a student's enrollment status (full-time or part-time).

Remedial activities allow students to meet certain admission requirements for a program leading to a Diploma of College Studies or to an Attestation of College Studies. They are focused on the knowledge considered essential to meet these requirements.

College-level educational institutions can offer remedial activities, but they are not obligated to do so. This means they may offer all, some or none of these activities. When an educational institution does not offer the activity a student requires for admission, the student is directed to the secondary-level institution where the course in question is offered, usually at an adult education centre.

## List of Remedial Activities

### Languages

- 01PL Rédiger un texte lié à la compréhension d'une œuvre littéraire.
- 1010 Use basic techniques and rules in the comprehension and communication of various forms of discourse.
- 1011 Comprendre et produire des messages simples en français.
- 01PM Understand and express simple messages in English.

### Mathematics, Science and Technology

- 01PN Solve problems by using concepts in algebra, statistics and geometry (Sec. IV CST).
- 01PP Solve problems by using concepts in algebra and geometry (Sec. IV TS).
- 01PQ Solve problems by using concepts in algebra, probability theory, geometry, discrete mathematics and financial mathematics (Sec. V CST).
- 01PR Solve problems by using concepts in algebra and geometry (Sec. V TS).
- 01PS Analyze the behaviour of matter and the transformation of energy by using scientific principles.
- 01PT Analyze genetic phenomena, the behaviour of matter and the transformation of energy by using scientific principles.
- 01PU Analyze the behaviour of matter and the transformation of energy using the principles of chemistry.
- 01PV Analyze different situations based on the fundamental principles of classical mechanics and geometric optics.

### Social Sciences

- 0H00 Interpret social phenomena of Québec from the 19th century to the present from a historical perspective.

# Objectives and Standards for Remedial Activities

## Français, langue d'enseignement

Code : 01PL

<b>Objectif</b>	<b>Standard</b>
<b>Énoncé de la compétence</b>	
Rédiger un texte lié à la compréhension d'une œuvre littéraire.	
<b>Éléments de la compétence</b>	<b>Critères de performance</b>
1. Mettre en relation des textes littéraires et non littéraires.	<ul style="list-style-type: none"><li>• Compréhension appropriée de situations de communication (réalité et fiction, procédés d'écriture, contexte, thème, genre, contribution culturelle).</li><li>• Reconnaissance de l'usage esthétique de la langue et de ses effets de sens.</li></ul>
2. Dégager le sens de textes littéraires et non littéraires.	<ul style="list-style-type: none"><li>• Reconnaissance de l'organisation du texte, du point de vue adopté par le narrateur ou l'auteur et de ce qui confère une unité au texte.</li></ul>
3. Rendre compte de la lecture d'une œuvre littéraire.	<ul style="list-style-type: none"><li>• Rédaction d'un résumé de lecture pertinent et cohérent.</li><li>• Identification précise de l'organisation générale de l'œuvre.</li><li>• Expression claire du point de vue adopté dans l'œuvre.</li></ul>
4. Rédiger un texte lié à une œuvre littéraire.	<ul style="list-style-type: none"><li>• Planification adéquate de la production d'un texte.</li><li>• Énonciation d'idées claires et cohérentes.</li><li>• Organisation logique du paragraphe et des paragraphes entre eux.</li><li>• Respect des règles orthographiques, grammaticales, syntaxiques et de ponctuation.</li><li>• Utilisation d'un vocabulaire précis et varié.</li><li>• Rédaction d'un texte cohérent et pertinent de 500 mots comportant un maximum de 28 erreurs d'orthographe, de grammaire, de syntaxe et de ponctuation.</li></ul>
5. Réviser et corriger un texte lié à une œuvre littéraire.	<ul style="list-style-type: none"><li>• Utilisation appropriée de stratégies de révision.</li><li>• Correction appropriée du texte.</li></ul>
<b>Activités d'apprentissage</b>	
Discipline :	Français, langue d'enseignement et littérature
Périodes d'enseignement :	60
Précision :	Cette activité s'adresse à des élèves qui n'ont pas suivi ou réussi <i>Français, langue d'enseignement</i> de la 5 <sup>e</sup> secondaire.

# Objectives and Standards for Remedial Activities

## English, Language of instruction

Code: 1010

<i>Objective</i>	<i>Standard</i>
<b>Statement of the Competency</b>	
Use basic techniques and rules in the comprehension and communication of various forms of discourse.	
<b>Elements of the Competency</b>	<b>Performance Criteria</b>
1. Comprehend oral and written discourse.	<ul style="list-style-type: none"> <li>• Appropriate recognition of the meaning of words, word groups and idioms</li> <li>• Appropriate recognition of central ideas</li> <li>• Appropriate recognition of supporting ideas and details</li> <li>• Appropriate understanding of techniques used</li> </ul>
2. Plan various forms of oral and written discourse.	<ul style="list-style-type: none"> <li>• Appropriate use of preparation strategies</li> <li>• Clear statement of a central idea</li> <li>• Effective planning for the development of a central idea</li> <li>• Clear organization of supporting ideas and details</li> </ul>
3. Produce a discourse.	<ul style="list-style-type: none"> <li>• Production of a 500-word written discourse</li> <li>• Clear formulation of a thesis statement</li> <li>• Consistent development of supporting ideas</li> <li>• Appropriate use of grammar and syntax</li> <li>• Appropriate use of spelling, punctuation and capitalization</li> <li>• Appropriate choice and use of words</li> <li>• Appropriate development of sentences and paragraphs</li> </ul>
4. Edit the discourse.	<ul style="list-style-type: none"> <li>• Appropriate use of revision strategies</li> <li>• Accurate correction of the discourse</li> </ul>
<b>Learning Activities</b>	
Discipline:	English, Language of Instruction and Literature
Periods of instruction:	60 or 90
Note:	This activity applies to students who have not taken or not completed Secondary V English Language Arts.

# Objectives and Standards for Remedial Activities

## Français, langue seconde

Code : 1011

<i>Objectif</i>	<i>Standard</i>
<b>Énoncé de la compétence</b>	<b>Critères de performance</b>
Comprendre et produire des messages simples en français.	
1. Rédiger et réviser un texte simple portant sur un sujet familier.	<ul style="list-style-type: none"> <li>• Formulation claire d'un texte d'environ 200 mots.</li> <li>• Organisation cohérente des idées.</li> <li>• Élaboration suffisante du contenu.</li> <li>• Emploi pertinent du vocabulaire lié au sujet.</li> <li>• Rédaction de phrases simples généralement correctes.</li> <li>• Respect de l'orthographe des mots courants, appris en classe ou trouvés dans les textes étudiés.</li> <li>• Respect du code grammatical, notamment des accords simples à l'intérieur du groupe nominal et du groupe verbal (présent de l'indicatif, présent de l'impératif, futur proche, passé immédiat, passé composé).</li> <li>• Utilisation appropriée de stratégies de révision.</li> <li>• Correction satisfaisante des erreurs.</li> </ul>
2. Dégager le sens d'un texte simple portant sur un sujet familier.	<ul style="list-style-type: none"> <li>• Interprétation correcte du sens général d'un texte d'environ 350 mots.</li> <li>• Repérage des idées principales.</li> <li>• Repérage d'éléments d'information.</li> <li>• Compréhension adéquate du vocabulaire lié au sujet.</li> <li>• Utilisation pertinente des stratégies de lecture.</li> </ul>
3. Produire un message oral simple portant sur un sujet familier.	<ul style="list-style-type: none"> <li>• Formulation claire du message.</li> <li>• Organisation cohérente des idées.</li> <li>• Élaboration suffisante du contenu.</li> <li>• Emploi pertinent du vocabulaire lié au sujet.</li> <li>• Respect des règles syntaxiques.</li> <li>• Prononciation intelligible, intonation et débit appropriés à la situation de communication.</li> </ul>
4. Dégager le sens d'un message oral simple portant sur un sujet familier.	<ul style="list-style-type: none"> <li>• Interprétation correcte du sens général.</li> <li>• Repérage des idées principales.</li> <li>• Repérage d'éléments d'information.</li> <li>• Compréhension adéquate du vocabulaire lié au sujet.</li> </ul>
<b>Activités d'apprentissage</b>	
Discipline :	Français, langue seconde
Périodes d'enseignement :	60
Précision :	Cette activité s'adresse à des élèves qui n'ont pas suivi ou réussi Français, langue seconde de la 5 <sup>e</sup> secondaire.

# Objectives and Standards for Remedial Activities

## English, Second Language

Code: 01PM

<i>Objective</i>	<i>Standard</i>
<b>Statement of the Competency</b>	
Understand and express simple messages in English.	
<b>Elements of the Competency</b>	<b>Performance Criteria</b>
1. Understand a spoken message.	<ul style="list-style-type: none"> <li>• Recognition of the general meaning of a message about a familiar, predictable topic, after hearing it a few times</li> </ul>
2. Understand a text.	<ul style="list-style-type: none"> <li>• Recognition of the general meaning of and main ideas in a few paragraphs about a familiar, predictable topic</li> <li>• Pertinent use of reading strategies</li> </ul>
3. Interact in English.	<ul style="list-style-type: none"> <li>• Clear formulation of messages about a familiar, predictable topic</li> <li>• Appropriate response to the speaker's words</li> <li>• Sufficient development of the message</li> <li>• Application of basic language rules so as not to hinder understanding</li> <li>• Pertinent use of communication strategies</li> <li>• Demonstration of openness and respect</li> </ul>
4. Write and revise a text.	<ul style="list-style-type: none"> <li>• Clear and coherent formulation of a text of about 200 words on a familiar, predictable topic</li> <li>• Relevance to the situation and communication objective</li> <li>• Sufficient development of the content</li> <li>• Pertinent use of vocabulary related to the topic</li> <li>• Application of basic language rules so as not to hinder understanding, paying particular attention to plural nouns, personal pronouns, the negative form, and verbs in the simple present, simple past and future tenses</li> <li>• Appropriate use of revision strategies</li> </ul>
<b>Learning Activities</b>	
Discipline:	English as a Second Language
Periods of instruction:	60
Note:	This activity applies to students who have not taken or completed Secondary V English as a Second Language.

# Objectives and Standards for Remedial Activities

## Mathematics

Code: 01PN

<i>Objective</i>	<i>Standard</i>
<b>Statement of the Competency</b>	
Solve problems by using concepts in algebra, statistics and geometry (Sec. IV CST).	
<b>Elements of the Competency</b>	<b>Performance Criteria</b>
1. Describe the properties of a real function represented by its equation or by its graph.	<ul style="list-style-type: none"> <li>• Precise definition of the concept of function</li> <li>• Accurate identification of the characteristics (e.g. domain, x- and y-intercepts) of a polynomial function of degree less than 3, an exponential function or a piecewise function</li> <li>• Appropriate choice and use of representation</li> <li>• Appropriate translation from the graph to the rule of correspondence</li> </ul>
2. Solve problems involving linear relationships.	<ul style="list-style-type: none"> <li>• Accurate analysis of situations pertaining to economic, social, technical or scientific contexts, or to daily life.</li> <li>• Appropriate modelling of the problem in terms of equations.</li> <li>• Correct application of the methods for solving a system of linear equations in two variables</li> <li>• Accurate interpretation of results</li> </ul>
3. Analyze statistical data.	<ul style="list-style-type: none"> <li>• Accurate calculation of measures of position</li> <li>• Appropriate interpretation of measures of position and of dispersion</li> <li>• Correct construction of a two-variable distribution table</li> <li>• Appropriate construction of a scatter plot</li> <li>• Qualitative interpretation of the correlation between two variables</li> <li>• Appropriate representation and interpretation of the regression line</li> </ul>
4. Solve problems pertaining to analytic geometry.	<ul style="list-style-type: none"> <li>• Appropriate modelling of the problem</li> <li>• Exact calculation of the distance between two points</li> <li>• Exact calculation of the slope of a straight line</li> <li>• Exact identification of the relative position of two straight lines</li> <li>• Precise determination of straight-line equations using the concepts of parallel and perpendicular lines</li> <li>• Accurate interpretation of results</li> </ul>

## Objectives and Standards for Remedial Activities

- |                                       |  |
|---------------------------------------|--|
| 5. Solve problems by using triangles. | <ul style="list-style-type: none"><li>• Appropriate modelling of the problem</li><li>• Appropriate use of the knowledge of similar triangles</li><li>• Appropriate choice and application of trigonometric ratios or the law of sines</li><li>• Correct application of Hero's formula</li><li>• Accurate interpretation of results</li></ul> |
|---------------------------------------|--|

### Learning Activities

Discipline:	Mathematics
Periods of instruction:	60
Note:	This activity applies to students who have not taken or not completed Secondary IV Cultural, Social and Technical Option.

## Objectives and Standards for Remedial Activities

Code: 01PP

<i>Objective</i>	<i>Standard</i>
<b>Statement of the Competency</b>	<b>Performance Criterion (for the competency as a whole)</b>
Solve problems by using concepts in algebra and geometry (Sec. IV TS).	<ul style="list-style-type: none"> <li>• Use of appropriate terminology</li> </ul>
<b>Elements of the Competency</b>	<b>Performance Criteria</b>
1. Manipulate numerical and algebraic expressions.	<ul style="list-style-type: none"> <li>• Appropriate factoring of algebraic expressions (finding the common factor and factoring by grouping, perfect square trinomial, difference of two squares)</li> <li>• Correct application of the properties of exponents and radicals</li> </ul>
2. Analyze situations by using real functions.	<ul style="list-style-type: none"> <li>• Appropriate modelling of the situation</li> <li>• Appropriate use of the multiplicative parameters</li> <li>• Correct determination of the properties (domain, range, sign, variation, extrema, x- and y- intercepts) of an exponential, second-degree polynomial or piecewise function</li> <li>• Interpretation and graphical representation of a periodic function and of the inverse of an exponential or second-degree polynomial function</li> <li>• Accurate interpretation of results</li> </ul>
3. Solve problems by using equations.	<ul style="list-style-type: none"> <li>• Appropriate modelling of the problem</li> <li>• Correct application of the methods for solving second-degree equations (factoring and zero product rule)</li> <li>• Correct application of the methods for solving exponential equations, with or without logarithms (definition and changing bases)</li> <li>• Correct application of the methods for solving systems of linear equations in two variables</li> <li>• Accurate interpretation of results</li> </ul>
4. Solve problems by using analytic geometry.	<ul style="list-style-type: none"> <li>• Appropriate modelling of the problem</li> <li>• Proper use of trigonometric relations in triangles</li> <li>• Correct determination of the relative position of two straight lines, the equation of a line, the distance between two points and the coordinates of a point of division</li> <li>• Accurate interpretation of results</li> </ul>
<b>Learning Activities</b>	
Discipline:	Mathematics
Periods of instruction:	75
Notes:	<ul style="list-style-type: none"> <li>• This activity applies to students who have not taken or not completed Secondary IV Technical and Scientific Option.</li> <li>• This activity was developed for students who have mastered the content of the Secondary IV Cultural, Social and Technical Option.</li> </ul>

## Objectives and Standards for Remedial Activities

Code: 01PQ

<i>Objective</i>	<i>Standard</i>
<b>Statement of the Competency</b>	
Solve problems by using concepts in algebra, probability theory, geometry, discrete mathematics and financial mathematics (Sec. V CST).	
<b>Elements of the Competency</b>	<b>Performance Criteria</b>
1. Optimize situations by using linear inequalities.	<ul style="list-style-type: none"> <li>• Appropriate modelling of the situation</li> <li>• Accurate solution of a system of linear inequalities in two variables by using a polygon of constraints</li> <li>• Accurate interpretation of results</li> <li>• Proper formulation of the changes in the constraints and correct interpretation of the effects of these changes</li> </ul>
2. Solve problems involving probabilities.	<ul style="list-style-type: none"> <li>• Appropriate modelling of a situation</li> <li>• Accurate association of a type of probability with a situation: theoretical, experimental or subjective</li> <li>• Proper choice and correct application of the concept of odds (odds for, odds against) or probability, according to the context</li> <li>• Appropriate calculation of conditional probabilities related to the situation</li> <li>• Appropriate calculation of the mathematical expectation of a random variable and, where necessary, proper modification of certain parameters to equalize the situation or to optimize a gain or a loss</li> <li>• Accurate interpretation of results</li> </ul>
3. Solve geometry problems.	<ul style="list-style-type: none"> <li>• Appropriate modelling of the problem</li> <li>• Precise calculation of unknown measurements (angle, length, area, volume) by using the properties of similar figures and solids, as well as metric and trigonometric relations or cosine law</li> <li>• Accurate interpretation of results</li> </ul>
4. Solve problems requiring the use of discrete mathematics.	<ul style="list-style-type: none"> <li>• Appropriate representation and modelling of a situation using a graph (directed, coloured, weighted or not)</li> <li>• Proper use of graph theory (Euler, Hamiltonian, shortest path, etc.)</li> <li>• Proper counting and enumeration of possibilities in social choice situations</li> <li>• Accurate comparison and interpretation of different voting procedures and their results</li> <li>• Accurate interpretation of results</li> </ul>

5. Solve problems in financial mathematics.

- Accurate description and interpretation of the components of financial mathematics: simple and compound interest, interest period, discounting, compounding
- Appropriate modelling of financial situation
- Proper use of formulas to calculate discounting and compounding
- Correct solving of exponential and logarithmic equations
- Proper comparison and analysis of financial situations

### **Learning Activities**

Discipline: Mathematics

Periods of instruction: 60

Note: This activity applies to students who have not taken or not completed Secondary V Cultural, Social and Technical Option.

## Objectives and Standards for Remedial Activities

Code: 01PR

<i>Objective</i>	<i>Standard</i>
<b>Statement of the Competency</b>	
Solve problems by using concepts in algebra and geometry (Sec. V TS).	
<b>Elements of the Competency</b>	<b>Performance Criteria</b>
1. Analyze situations by using real functions.	<ul style="list-style-type: none"> <li>• Appropriate modelling of the situation</li> <li>• Correct determination of the properties (e.g. domain, x- and y-intercepts) and the inverse of an exponential or a logarithmic function, or a second-degree polynomial, square-root, sinusoidal, tangent, rational or piecewise function</li> <li>• Appropriate use of the additive and multiplicative parameters</li> <li>• Algebraic manipulation according to the rules (including polynomial division and the composition of functions)</li> <li>• Accurate interpretation of results</li> </ul>
2. Solve problems by using equations and inequalities.	<ul style="list-style-type: none"> <li>• Appropriate modelling of the problem</li> <li>• Correct application of the methods for solving equations and inequalities in one variable (second-degree, square root, rational, exponential, logarithmic, trigonometric)</li> <li>• Correct application of the methods for solving systems of equations involving various functional models</li> <li>• Accurate interpretation of results</li> </ul>
3. Solve problems involving equivalent figures.	<ul style="list-style-type: none"> <li>• Appropriate modelling of the problem</li> <li>• Appropriate use of the properties of similar figures (length, area, volume)</li> <li>• Accurate interpretation of results</li> </ul>
4. Solve problems by using geometric vectors.	<ul style="list-style-type: none"> <li>• Appropriate modelling of the problem</li> <li>• Appropriate use of vectors (addition, multiplication by a scalar, scalar product)</li> <li>• Accurate interpretation of results</li> </ul>

5. Solve problems by using circles and trigonometry.
- Appropriate modelling of the problem
  - Appropriate construction of a standard unit circle and location of its significant points
  - Appropriate application of the laws of sines and cosines
  - Appropriate manipulation of trigonometric identities
  - Appropriate use of metric relations in circles (e.g. degree, radian, chord, arc, circular sector and segment, inscribed angle)
  - Accurate interpretation of results

### Learning Activities

Discipline: Mathematics

Periods of instruction: 90

Notes:

- This activity applies to students who have not taken or not completed Secondary V Technical and Scientific Option.
- This activity was developed for students who have mastered the content of the Secondary IV Technical and Scientific or Science Options.

# Objectives and Standards for Remedial Activities

## Science and Technology

Code: 01PS

### Objective

### Standard

#### Statement of the Competency

Analyze the behaviour of matter and the transformation of energy by using scientific principles.

#### Elements of the Competency

#### Performance Criteria

1. Explain the properties of matter based on its representations and the periodic table.	<ul style="list-style-type: none"><li>• Accurate description of the Rutherford-Bohr atomic model</li><li>• Appropriate use of the Lewis notation</li><li>• Appropriate comparison of the periodic table (families and periods) and atomic structure</li></ul>
2. Solve problems involving chemical changes.	<ul style="list-style-type: none"><li>• Appropriate explanation of basic chemical changes (e.g. combustion, neutralization)</li><li>• Accurate description of the biogeochemical cycles of carbon and nitrogen</li><li>• Correct application of the law of the conservation of matter to simple chemical changes</li></ul>
3. Determine certain properties of solutions.	<ul style="list-style-type: none"><li>• Accurate calculation of concentrations (mole/L, %, ppm)</li><li>• Correct use of the pH scale to determine the acidity or basicity of a solution</li><li>• Appropriate evaluation of the electrical conductivity of a solution</li><li>• Appropriate description of the reactions of electrolytic dissociation</li></ul>
4. Apply basic principles of electricity and electromagnetism to simple situations.	<ul style="list-style-type: none"><li>• Appropriate description of the concept of an electrical charge and of static electricity phenomena</li><li>• Pertinent use of Ohm's law (series and parallel circuits)</li><li>• Appropriate use of the relationship between power, energy and time</li><li>• Appropriate description of magnetic forces (attraction and repulsion) and the magnetic field of a straight live wire</li></ul>
5. Describe the transformation of energy.	<ul style="list-style-type: none"><li>• Appropriate use of the qualitative aspects of the law of conservation of energy (e.g. mechanical, electrical, thermal)</li></ul>
6. Verify, using the experimental approach, several scientific laws and principles.	<ul style="list-style-type: none"><li>• Appropriate implementation of an experimental procedure</li><li>• Accurate interpretation of results</li><li>• Appropriate communication of results</li></ul>

## Objectives and Standards for Remedial Activities

### Learning Activities

Discipline: Science and Technology

Periods of instruction: 45

Notes:

- This activity applies to students who have not taken or not completed Secondary IV Science and Technology.
- For students who will be following the objective 01PS as well as the objective 01PT, it is advisable that the two activities be taken concurrently.

## Objectives and Standards for Remedial Activities

Code: 01PT

<i>Objective</i>	<i>Standard</i>
<b>Statement of the Competency</b>	
Analyze genetic phenomena, the behaviour of matter and the transformation of energy by using scientific principles.	
<b>Elements of the Competency</b>	<b>Performance Criteria</b>
1. Explain the properties of matter based on its representations and the periodic table.	<ul style="list-style-type: none"><li>• Accurate description of the simplified atomic model (Rutherford-Bohr-Chadwick)</li><li>• Accurate use of the concept of mole (Avogadro's number)</li><li>• Correct identification of the periodicity of physical and chemical properties based on the periodic table</li></ul>
2. Solve problems involving chemical changes and nuclear transformations.	<ul style="list-style-type: none"><li>• Accurate calculation of concentrations (mole/L)</li><li>• Correct identification of the oxidation reaction</li><li>• Accurate determination of the molecular formula for salts</li><li>• Accurate calculation of the quantities of matter involved in a reaction</li><li>• Proper identification of the nature of a chemical bond (ionic or covalent)</li><li>• Proper identification of the endothermic or exothermic character of a reaction</li><li>• Correct description of the biogeochemical phosphorus cycle</li><li>• Proper description of isotopes and nuclear phenomena (fission, fusion and radioactivity)</li></ul>
3. Solve problems by using the laws of electricity and electromagnetism.	<ul style="list-style-type: none"><li>• Appropriate use of Kirchhoff's laws (series, parallel or mixed circuits)</li><li>• Accurate calculation of equivalent resistances</li><li>• Correct use of Coulomb's law</li><li>• Appropriate description of the magnetic field of a solenoid</li></ul>

## Objectives and Standards for Remedial Activities

<p>4. Solve problems involving the transformation of energy.</p>	<ul style="list-style-type: none"> <li>• Accurate definition of the concepts of heat, temperature, mass, weight, force, effective force, work and energy (kinetic, potential and heat)</li> <li>• Appropriate use of the relationship between mass and weight</li> <li>• Appropriate use of the relationship between work, force and travel</li> <li>• Appropriate use of the relationship between work and energy</li> <li>• Appropriate use of the relationship between potential energy, mass, gravitational constant and travel</li> <li>• Appropriate use of the relationship between kinematic energy, mass and velocity</li> <li>• Appropriate use of the relationship between heat energy, specific heat capacity, mass and temperature variation</li> </ul>
<p>5. Describe the basic characteristics related to genetics.</p>	<ul style="list-style-type: none"> <li>• Proper definition of the vocabulary associated with genetics (gene, allele, gamete, genotype and phenotype, homozygote and heterozygote, dominance and recessivity)</li> <li>• Accurate description of genetic phenomena (heredity, cross-breeding)</li> <li>• Accurate description of the stages of protein synthesis (transcription, translation)</li> </ul>
<p>6. Verify, using the experimental approach, several scientific laws and principles.</p>	<ul style="list-style-type: none"> <li>• Appropriate implementation of an experimental procedure</li> <li>• Accurate interpretation of results</li> <li>• Appropriate communication of results</li> </ul>

### Learning Activities

Discipline: Science and Technology

Periods of instruction: 75

Notes:

- This activity applies to students who have not taken or not completed Secondary IV Environmental Science and Technology.
- For students who will be following the objective 01PS as well as the objective 01PT, it is advisable that the two activities be taken concurrently.

## Objectives and Standards for Remedial Activities

Code: 01PU

<i>Objective</i>	<i>Standard</i>
<b>Statement of the Competency</b>	
Analyze the behaviour of matter and the transformation of energy using the principles of chemistry.	
<b>Elements of the Competency</b>	<b>Performance Criteria</b>
1. Analyze the behaviour of an ideal gas based on its properties.	<ul style="list-style-type: none"> <li>• Accurate description of the behaviour of gases using the Kinetic theory</li> <li>• Correct application of laws involving pressure, volume, temperature and the number of moles</li> <li>• Correct application of the ideal gas law</li> <li>• Correct application of the law of partial pressures</li> </ul>
2. Analyze the energy changes in a chemical reaction.	<ul style="list-style-type: none"> <li>• Correct production of an energy diagram and accurate interpretation of its components</li> <li>• Accurate determination of the molar heat of a reaction (e.g. Hess's law, calorimetry)</li> <li>• Appropriate interpretation of the enthalpy change</li> </ul>
3. Explain the reaction rate.	<ul style="list-style-type: none"> <li>• Appropriate explanation of the effect of the following factors on the reaction rate: nature of the reactants, concentration, surface area, temperature and catalyst</li> <li>• Appropriate use of the rate law</li> </ul>
4. Solve problems related to the concept of the equilibrium of a reaction.	<ul style="list-style-type: none"> <li>• Correct statement of the algebraic expression of a reaction's equilibrium constant (e.g. water ionization, acidity, alkalinity, solubility-product)</li> <li>• Appropriate prediction of the behaviour of systems in a state of equilibrium that are subjected to variations in concentration, temperature and pressure, using Le Chatelier's principle</li> <li>• Appropriate use of the relationship between the equilibrium constant of a reaction and the concentration of products and reactants</li> <li>• Correct interpretation of the value of the equilibrium constant</li> <li>• Appropriate use of the relationship between the pH and the molar concentration of hydronium and hydroxide ions</li> </ul>
5. Carry out an experiment to verify several laws and principles of chemistry.	<ul style="list-style-type: none"> <li>• Appropriate implementation of an experimental procedure</li> <li>• Appropriate determination of the uncertainty related to measurements</li> <li>• Accurate interpretation of results</li> <li>• Appropriate communication of results</li> </ul>
<b>Learning Activities</b>	
Discipline:	Chemistry
Periods of instruction:	75
Note:	This activity applies to students who have not taken or not completed Secondary V Chemistry.

## Objectives and Standards for Remedial Activities

Code: 01PV

<i>Objective</i>	<i>Standard</i>
<b>Statement of the Competency</b>	
Analyze different situations based on the fundamental principles of classical mechanics and geometric optics.	
<b>Elements of the Competency</b>	<b>Performance Criteria</b>
1. Solve problems by using uniform rectilinear motion and uniformly accelerated rectilinear motion.	<ul style="list-style-type: none"> <li>• Appropriate representation of the situation</li> <li>• Correct identification and comparison of the parameters of motion (position, speed, acceleration, time)</li> <li>• Correct use of kinematic graphs and equations</li> <li>• Accurate interpretation of results</li> </ul>
2. Solve problems by using the principles of dynamics.	<ul style="list-style-type: none"> <li>• Relevant definition of the concepts of mass and force</li> <li>• Appropriate vectorial representation of the forces acting on a body</li> <li>• Correct determination of the resultant of a set of forces using the graphical method</li> <li>• Appropriate use of Newton's laws and rigorous interpretation of results</li> </ul>
3. Solve problems that involve the conservation of mechanical energy.	<ul style="list-style-type: none"> <li>• Appropriate use of Hooke's law</li> <li>• Accurate calculation of the power produced or transmitted during the transformation of mechanical energy</li> <li>• Accurate determination of the different forms of a system's mechanical energy (potential and kinetic)</li> <li>• Appropriate use of the conservation of mechanical energy and rigorous interpretation of results</li> </ul>
4. Solve problems by using the fundamental principles of geometric optics.	<ul style="list-style-type: none"> <li>• Appropriate use of the laws of reflection and refraction</li> <li>• Accurate determination of the characteristics of an image (nature, position, size, orientation) formed by a thin lens or a mirror (plane, spherical)</li> </ul>
5. Verify, using the experimental approach, several laws or principles of classical mechanics and geometric optics.	<ul style="list-style-type: none"> <li>• Appropriate implementation of the experimental procedure</li> <li>• Appropriate determination of the uncertainty related to measurements</li> <li>• Accurate interpretation of results</li> <li>• Appropriate communication of results</li> </ul>
<b>Learning Activities</b>	
Discipline:	Physics
Periods of instruction:	75
Note:	This activity applies to students who have not taken or not completed Secondary V Physics.

# Objectives and Standards for Remedial Activities

## History of Québec and Canada

Code: 0H00

<i>Objective</i>	<i>Standard</i>
<b>Statement of the Competency</b>	
Interpret social phenomena of Québec from the 19th century to the present from a historical perspective.	
<b>Elements of the Competency</b>	<b>Performance Criteria</b>
1. Trace the way in which Québec society has evolved over time and in space.	<ul style="list-style-type: none"> <li>• For the following social phenomena:                             <ul style="list-style-type: none"> <li>○ formation of the Canadian federal system</li> <li>○ nationalisms and the autonomy of Canada</li> <li>○ modernization of Québec and the Quiet Revolution</li> <li>○ societal choices in contemporary Québec</li> </ul> </li> <li>• Clear differentiation of the main time periods</li> <li>• Establishment of relevant links between temporal and spatial dimensions</li> <li>• Rigorous establishment of the facts related to social phenomena</li> <li>• Precise identification of historical actors: individuals, peoples, social groups and institutions</li> </ul>
2. Analyze change and continuity in the history of Québec society.	<ul style="list-style-type: none"> <li>• For the following social phenomena:                             <ul style="list-style-type: none"> <li>○ formation of the Canadian federal system</li> <li>○ nationalisms and the autonomy of Canada</li> <li>○ modernization of Québec and the Quiet Revolution</li> <li>○ societal choices in contemporary Québec</li> </ul> </li> <li>• Correct identification of change and continuity by relating facts over the long term</li> <li>• Accurate assessment of the role and interests of historical actors</li> <li>• Correct determination of the causes and context of change</li> <li>• Coherent explanation of the consequences of change</li> <li>• Coherent establishment of links between the past and present</li> </ul>
3. Use historical documents to analyze social phenomena.	<ul style="list-style-type: none"> <li>• Critical analysis of sources</li> <li>• Correct interpretation of historical documents</li> </ul>
<b>Learning Activities</b>	
Discipline:	History
Periods of instruction:	45
Note:	This activity applies to students who have not taken or not completed Secondary IV History of Québec and Canada.

