Chemistry
11 and 12

Grade Collections
CHEMISTRY 11 AND 12 GRADE COLLECTIONS INTRODUCTION

The complete list of Provincially Recommended learning resources for most subjects includes a large number of titles. To help make the process of selecting learning resources more manageable for teachers, experienced teachers of the subject have been asked to identify Grade Collections. Each Grade Collection lists the Provincially Recommended resources that match the greatest number of prescribed learning outcomes for that grade and subject.

Grade Collections are not prescriptive; they are intended to provide assistance and advice only. Teachers are encouraged to use existing resources that match the learning outcomes and to select additional resources to meet their specific classroom needs. It is recommended that teachers use the *Chemistry 11 and 12 IRP* when making resource decisions.

Resources that are identified through the Continuous Submissions process as having strong curriculum match will be added to the Collections as they become available. Information about new Provincially Recommended resources can be found at [http://www.bced.gov.bc.ca/irp_resources/lr/resource/res_main.htm](http://www.bced.gov.bc.ca/irp_resources/lr/resource/res_main.htm). This site is updated monthly and resources are organized according to IRP.

**Categories of Resources**

Learning resources selected for the Grade Collection have been categorized as either comprehensive or additional.

- **Comprehensive resources** tend to provide a broad coverage of the learning outcomes for most curriculum organizers.

- **Additional resources** are more topic specific and support individual curriculum organizers or clusters of outcomes. They are recommended as valuable support or extension for specific topics. Additional resources will typically be used to supplement or fill in the areas not covered by the comprehensive resources.

In many cases, Grade Collections provide more than one resource to support specific outcomes, enabling teachers to select resources that best match different teaching and learning styles.

**Other Provincially Recommended Resources**

Appendix B of the IRP includes annotations for other Provincially Recommended resources not in the Grade Collections. While these resources meet only a limited number of outcomes, teachers are encouraged to consider them for different audience needs, teaching and learning styles, theme development, in-depth research, and to provide a resource-rich science environment.

**Outcomes Not Supported By Resources**

There may be prescribed learning outcomes either partially or not at all supported by learning resources at this time. Many of these are best met by teacher-developed activities.

**Grade Collection Information**

The following pages begin with an overview of the comprehensive resources for this curriculum, then present Grade Collection charts for each grade. These charts list both comprehensive and additional resources for each curriculum organizer for the grade. Each chart is followed by an annotated bibliography. Please confirm with the suppliers for complete and up-to-date ordering information. There is also a chart that shows the alphabetical list of Grade Collection titles for each grade and a blank template that can be used by teachers to record their individual choices.
**Overview of Comprehensive Resources**

- *Chemistry: Connections to Our Changing World*  
  (Lemay)  
  (Grades 11 and 12)

This comprehensive resource is comprised of numerous student and teacher components that provide for a variety of teaching and learning styles. It focuses on the real-life application of chemistry and integrates scientific issues. This edition will be available until approximately 2001. A new edition, copyright 2000, is now available. It is comparable for classroom use with the previous edition.

The hardcover student text is well-organized and readable with numerous hands-on exploration and learning activities, problem-solving strategies, and in-text labs.

The teacher’s edition provides teaching strategies, demos, multicultural and ESL strategies, extra problems, plus point-of-use bar-codes and integrated teaching suggestions for the optional videodiscs and computer simulation software.

A student laboratory manual provides 80 labs including small-scale labs. There is also an annotated teacher’s edition of the lab manual.

The transparencies consist of 55 full colour overheads.

A variety of ancillary components are also available.

- *Nelson Chemistry, British Columbia Edition*  
  (Jenkins et al.)  
  (Grades 11 and 12)

This resource consists of a hardcover student text, a two-volume teacher’s resource manual, and a transparency package.

The student text provides information, investigations, lab exercises, and questions in a well-organized and attractive format. Chemistry content and skills are developed gradually and integrated with examples, exercises, and investigations. The text promotes student participation in constructing their own knowledge along with the development of critical and creative thinking.

The student text is supported by a two-volume teacher’s resource manual that gives clearly defined objectives, teaching tips, and references to audio-visual aids. Also included are chapter-planning sheets, investigation notes, solutions with answers, and additional exercises.

The transparency package consists of 87 colour transparencies cross-referenced to the corresponding pages in the student text.

The optional Periodic Table package includes 50 coloured, three-hole punched copies of the Periodic Table.

The computer test banks are not recommended.

- *Merrill Chemistry, 1998 Edition*  
  (Smoot et al.)  
  (Grade 11)

This resource package consists of a hardcover student text and teacher’s wraparound edition, a softcover student lab manual, and transparency masters which can be purchased separately. Optional components are also available. A microchemistry lab techniques video, videodisc, and computer test banks for Macintosh, MS-DOS, and Apple II are not recommended. The IBM version of the test writer has not been evaluated.

The student text uses real-world examples, colour photographs, and illustrations to support the textual information. “Chemistry in Depth” sections provide enrichment. The text includes 36 “ChemActivity” investigations, most of which use microchemistry techniques. Short “Minute Lab” activities provide additional hands-on experience.

The student lab manual includes more than 30 microchemistry labs, and all labs are cross-referenced to the text.

The teacher’s wraparound edition presents teaching strategies, assessments, and background information. A four-step teaching model entitled “Focus, Teach, Assess, and Close” supports each lesson. Assessment options which are performance-based and evaluate both knowledge and skills are presented throughout the chapter.

The transparency package includes 50 colour transparencies in a three-ring binder with a resource book containing blackline reproductions and student workshops.

Student text has an emphasis on qualitative rather than quantitative chemistry and is very easy to read. A concern for the environment is evident throughout.