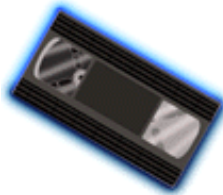
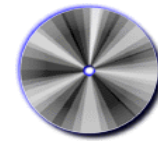


Kindergarten to Grade 9 Mathematics Resources



Annotated Bibliography

(includes resources approved in 1996 and 1997)



Alberta
EDUCATION

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1997

FEEDBACK - K-9 MATHEMATICS (1997)

Please complete the following:

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1. I found this document:
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_____ useful
_____ somewhat useful
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Alberta Education
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Edmonton AB T5K 0L2
FAX: 403-422-0576**

Alberta
Kindergarten to Grade 9
Mathematics Resources
Annotated Bibliography

(includes resources approved in 1996 and 1997)

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INTRODUCTION

Foreword

This annotated bibliography identifies the English language resources endorsed by all Western Canadian Protocol jurisdictions implementing *The Common Curriculum Framework for K–9 Mathematics* and authorized Alberta resources that are not listed in earlier annotated bibliographies.

The Western Canadian Protocol for Collaboration in Basic Education (WCP) - Kindergarten to Grade 12 was signed in December 1993 by the Ministers of Education from Manitoba, Saskatchewan, Alberta, British Columbia, Yukon Territory, and the Northwest Territories. *The Common Curriculum Framework for K–9 Mathematics* was released by these governments in June 1995. Alberta plans to implement the general and specific outcomes of *The Common Curriculum Framework for K–9 Mathematics* for grades 7 and 9 in September 1996 and for Kindergarten to Grade 6 and Grade 8 in September 1997.

The WCP resources in this annotated bibliography were selected, through a collaborative review process, based on their high level of fidelity with the rationale, philosophy, mathematical processes and outcomes of *The Common Curriculum Framework for K–9 Mathematics*. These resources have undergone an intensive review and were found to be the most suitable of those submitted. **All** of the WCP resources have been authorized for use in Alberta and include the WCP logo.

In addition, this annotated bibliography includes some resources authorized for Kindergarten to Grade 9 in Alberta. These resources have been evaluated in Alberta and not by the WCP evaluation process. These resources do NOT include the WCP logo.

Learning resources for Kindergarten to Grade 6 that were listed in the Elementary Mathematics Authorized Resources Annotated List (1995) have not been repeated in this annotated bibliography. Listings of elementary learning resources authorized since publishing the 1995 Elementary Mathematics List and all resources authorized for Grade 7 to Grade 9 are included in this bibliography in the section “Authorized Resources Under Review”. Both the 1995 Elementary Mathematics List and this bibliography are required for a complete listing of authorized resources for Kindergarten to Grade 9.

A complete listing of all authorized learning resources is also available on the Education in Alberta web site (<http://ednet.edc.gov.ab.ca>) in the Students and Learning section.

Organization

The resources in this bibliography are organized by grade, authorization status and then alphabetically by title. Resources that are suitable at more than one grade appear for each of the applicable grades, thus providing a comprehensive listing of materials at each grade.

Annotations with resource descriptions have been written for each resource. Where material is deemed to be particularly useful for students with special needs, this information is included in the *Audience* section of the annotation.

A listing of older Alberta authorizations is included at the end of the bibliography. These resources will be reviewed to determine their fidelity with the Program of Studies.

An alphabetical title listing at the end of the bibliography indicates the designated grade(s) of each resource.

Note: In the annotations, "Protocol framework" is used to refer to the document *The Common Curriculum Framework for K–9 Mathematics*.

Pricing Information

The prices appearing in this document are estimated prices for schools and should be used as a guideline for purchase planning. The estimated prices for WCP resources are applicable to all six participating jurisdictions (four provinces and two territories). The final selling prices for these resources in jurisdictions with book bureaus will be dependent upon provincial negotiations, cost recovery requirements and the inclusion of shipping and handling charges. For confirmation of prices, please contact the LRDC directly by phone (403-427-2767 or within Alberta, dial 310-0000 to be connected to a toll free operator), by fax (403-422-9750), or on Internet (<http://ednet.edc.gov.ab.ca/lrdc>).

For video resources, special video licensing arrangements may be negotiated with appropriate video distributors. Contact ACCESS – The Education Station for pricing.

Authorization Status

All learning resources included in this annotated bibliography have been authorized as either basic, support or authorized teaching resources.

WCP Resource Information

All WCP learning resources included in this annotated bibliography have been designated as “key” resources for *The Common Curriculum Framework for K–9 Mathematics* and include the WCP icon. The WCP resources include information on the Mathematical Processes, Strand/Substrand curriculum coverage and the following categorizations.

- *Breadth* indicates learning resources with the highest possible level of fidelity with the Protocol framework for a particular grade.
- *Depth* indicates learning resources that address only a subset of the outcomes with a high level of fidelity, but provide an

especially effective learning experience for students.

- *Breadth and Depth* indicates comprehensive learning resources that provide both the *breadth* and *depth* dimensions for a particular grade.
- *Teacher* indicates resources that assist teachers in the implementation of the Protocol framework.

Criteria For Selection of Learning and Teaching Resources

Resources in this annotated bibliography were selected according to the following criteria:

- *Content and Curriculum Fit* includes how effectively a learning resource supports any given learning outcome and meets students’ needs.
- *Instructional Design* includes the organization and presentation techniques, the methods used to introduce, develop and summarize concepts, the vocabulary level of a resource, the suitability to student learning styles, or to special audiences.
- *Technical Design* includes binding, type of print, quality of illustrations, durability, format when making learning resource selections. For multimedia resources, factors such as pacing, quality of pictures/sound, user friendliness, use of special features for emphasis, interactivity are considered.
- *Social Considerations/Tolerance and Understanding* includes screening for tolerance and social concerns.

When selecting learning and teaching resources from this list, consideration should be given to how the resources meet the learning needs of students and to the perspectives of the local

community. Information on a resource may be obtained from the descriptive information in this list, from the supplier, published reviews or colleagues and from an examination of the resource.

Acknowledgments

Alberta would like to thank those involved in the review and selection process to identify the best mathematics student and teacher resources for the Kindergarten to Grade 9 framework. In 1996, 53 teachers were selected by the participating jurisdictions in western Canada to review approximately 2500 items received in response to an invitation to publishers, producers and distributors for resource submissions. In 1997, the second phase of the learning resources initiative, 45 teachers were selected by their jurisdictions to review another 1100 items.

Appreciation is also extended to all the school systems from the WCP jurisdictions who supported teachers participating in the review process.

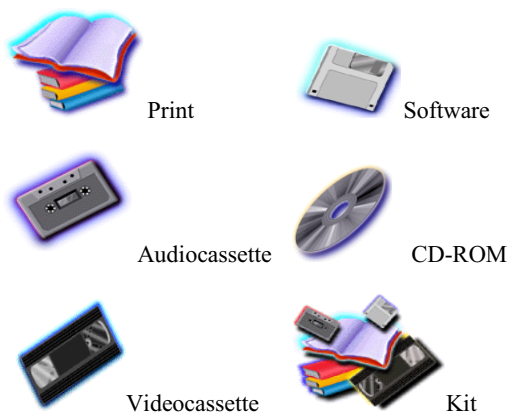
Finally, appreciation is extended to the publishers, producers and distributors who, in many cases, engaged in significant development to provide resources specifically designed for *The Common Curriculum Framework for K–9 Mathematics*.

SAMPLE ANNOTATION

Authorization Status	Title and Series	Annotation	Comments																																																														
<p style="text-align: center;"><i>Math Discoveries: Grades 2-3</i></p> <p>WCP <small>NEW</small></p> <p>Math Discoveries with Geoboards: Grades 2-3 Math Discoveries with Pattern Blocks: Grades 2-3 Math Discoveries with Tangrams: Grades 2-3</p> <p>Support Resource</p> <p>Physical Characteristics: • Geoboards - 49 pages, softcover • Patterns Blocks - 49 pages, softcover • Tangrams - 49 pages, softcover</p> <p>WCP Category: Depth Resource</p> <p>Author(s): Goodnow, J. (Geoboards) Goodnow, J. (Pattern Blocks) Hoogetboom, S. (Tangrams)</p> <p>Grade Level(s):</p> <table border="1" style="font-size: small;"> <tr><td>K</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr> <tr><td></td><td></td><td>✓</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table> <p>Strand/Substrand:</p> <table border="1" style="font-size: x-small;"> <thead> <tr> <th colspan="2">Number</th> <th colspan="2">Patterns and Relations</th> <th colspan="3">Shape and Space</th> <th colspan="2">Statistics and Probability</th> </tr> <tr> <th>Number Concepts</th> <th>Number Operations</th> <th>Patterns</th> <th>Variables and Equations</th> <th>Relations and Functions</th> <th>Measurement</th> <th>3-D Objects and 2-D Shapes</th> <th>Transformations</th> <th>Data Analysis</th> <th>Chance and Uncertainty</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table> <p>Publisher: Ideal School Supply Company Distributor: Addison-Wesley Publishers 26 Prince Andrew Place P.O. Box 580 DON MILLS ON M3C 2T8 (416) 447-5101 Phone: (800) 465-0536 ; (416) 443-0948 Fax:</p> <p>Copyright: 1994 ISBN: 1564510778 1994 1564510743 1994 1564510751</p> <p>Math Discoveries with Geoboards: Grades 2-3 \$11.60 Math Discoveries with Pattern Blocks Grades 2-3 \$11.60 Math Discoveries with Tangrams: Grades 2-3 \$11.60</p>	K	1	2	3	4	5	6	7	8	9			✓								Number		Patterns and Relations		Shape and Space			Statistics and Probability		Number Concepts	Number Operations	Patterns	Variables and Equations	Relations and Functions	Measurement	3-D Objects and 2-D Shapes	Transformations	Data Analysis	Chance and Uncertainty			✓			✓	✓	✓			<p>GRADE 2 - LEARNING AND TEACHING RESOURCES</p> <p>Annotation: These booklets provide hands-on activities, using geoboards, pattern blocks and tangrams, that cover some outcomes from the Patterns and Relations, and Shape and Space strands. Some problem solving and group work ideas are provided. Reproducible student activities, extensions, investigations, teacher notes and sample solutions are included.</p> <p>Comments: • The manipulatives are not included with the booklets. • These resources are useful as supplementary materials.</p> <p>Cautions: • Pattern blocks are limited.</p> <p>Audience: General</p> <p>Mathematical Processes:</p> <table border="1" style="font-size: x-small;"> <tr> <th>Communication</th> <th>Connections</th> <th>Estimation and Mental Mathematics</th> <th>Problem Solving</th> <th>Reasoning</th> <th>Technology</th> <th>Visualization</th> </tr> <tr> <td>✓</td> <td></td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td>✓</td> </tr> </table>	Communication	Connections	Estimation and Mental Mathematics	Problem Solving	Reasoning	Technology	Visualization	✓		✓	✓	✓		✓	
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<p>New Item</p>	<p>Grade Level Grid</p>	<p>Strand/Substrand Grid</p>	<p>Mathematical Processes Grid</p>																																																														

- *Authorization Status*: indicates the status of the resource as, basic, support or authorized teaching.
- *Title and Series*: series names are indicated by italics.
- *Annotation*: provide an overview of the resource.
- *Comments*: provide additional information about the resource.
- *Cautions*: alert teachers to potentially sensitive issues/community concerns, or comments about curriculum fit.
- *Audience*:
 - General: the majority of students
 - LD: students who have difficulty in processing and understanding spoken, written or visual information
 - ESL: students who are learning English as a second language
- *New Item*: identifies what is new for 1997. It may be a new resource or a new component of a previously approved series.
- *Grade Level Grid*: indicates the suitable grade range of the learning resource.

- *Format*: is represented by an icon, such as:



- *Strand/Substrand Grid*: allows teachers to see readily the fit between the Protocol framework at a given grade level and those outcomes covered in the learning resource.
- *Mathematical Processes Grid*: indicates those processes students will use when working through the activities provided in the learning resource.