

Problem Solving Resources

Compiled By:

**Vi Maeers and David Bale,
Faculty of Education,
University of Regina**

The following list is one that has been used and found most helpful in the study of problem solving.

An * denotes those resources with many actual problem examples.

Baker, D., Semple, C., & Stead, T. (1990). *How Big is the Moon*. Portsmouth NH: Heinemann.

* Baroody, A. (1993). *Problem Solving, Reasoning and Communicating, K-8. Helping Children Think Mathematically*. Toronto: Maxwell Macmillan Canada.

* Burns, M. (1975). *The I Hate Mathematics Book*. Toronto: Little, Brown, & Co.

* Burton, L. (1984). *Thinking Things Through. Problem Solving in Mathematics*. Oxford: Basil Blackwell.

Charles, R. & Lester, F. (1982). *Teaching Problem Solving. What, Why & How*. Palo Alto, CA: Dale Seymour Publications.

* Charles, R. I., Mason R. P., & Martin, L. (1985). *Problem-Solving Experiences in Mathematics*. Toronto: Addison- Wesley.

* Dudeney, H. E. (1967). *536 Puzzles & Curious Problems*. New York: Charles Scribner's Sons.

* Educational Quality Indicators (EQI) Mathematics Project (1992). *Problem Solving Profiles*. Calgary, AB: Calgary Board of Education.

* Fraser, S. (1982). *S.P.A.C.E.S.* (Solving Problems of Access to Careers in Engineering and Science). Palo Alto, CA: Dale Seymour Publications.

* Gardner, M. (1961). *Entertaining Mathematical Puzzles*. New York: Dover Publications Inc.

* Gardner, M. (1978). *Aha! Insight*. San Francisco: Scientific American, Inc./ W. H. Freeman & Co,

* Gardner, M (1982). *Aha! Gotcha. Paradoxes to Puzzle and Delight*. San Francisco: W.H. Freeman & Co.

* Harnadek, A. (1982). *Mind Benders*. Pacific Grove, CA: Midwest Publications Co., Inc.

Kloster, A. & Evans, N. (1993). Teaching problem solving: The influence of teachers' own learning experiences as mathematical problem solvers on their classroom practice. *A Paper presented at the XXI Annual Conference of The Canadian Society of The Study of Education*. June 10-13, Ottawa, Ontario.

* Krulik, S. & Rudnick, J.A. (1980). *Problem Solving, A Handbook for Teachers*. Toronto: Allyn & Bacon, Inc.

* Muller, R. (1989). *The Great Book of Math Teasers*. New York: Sterling Publishing Co., Inc.

National Commission on Excellence in Education (1983). *A Nation At Risk. The Imperative for Educational Reform*. Washington, DC: U.S. Department of Education.

- NCTM (1989). *The Curriculum and Evaluation Standards* . Reston, VA: NCTM.
- * Nelson, D. & Worth, J. (1983). *How to Choose and Create Good Problems for Primary Children* . Reston, VA: The National Council of Teachers of Mathematics.
- * Overholt, J.L., Rincon, J.B. & Ryan, C.A. (1984). *Math Problems Solving for Grades 4 Through 8* . Toronto: Allyn & Bacon, Inc.
- Polya, G. (1985). *How to Solve it. A New Aspect of Mathematical Method* Princeton NJ: Princeton University Press.
- Saskatchewan Education (1992). *Mathematics -- A Curriculum Guide for the Elementary Level*. Regina, Sask.
- Schoenfeld, A. (1985). *Mathematical Problem Solving* . Toronto: Academic Press.
- Schoenfeld, A. H. (1987). Confessions of an accidental theorist. *For the Learning of Mathematics*, 7 , 1 30-38.
- Seymour, D. & Beardsle, E. (1988). *Critical Thinking Activities in Patterns, Imagery, and Logic* . Palo Alto, CA: Dale Seymour Publications.
- Stanic, G.M.A. & Kilpatrick, J. (1989). Historical perspectives on problem solving in the mathematics curriculum. In Charles, R.I. & Silver, E.A. (Eds.) *The Teaching and Assessing of Mathematical Problem Solving* . Reston VA: NCTM / Lawerance Erlbaum Associates.
- Troutman, A.P. & Lichtenberg, B.K. (1991). *Mathematics A Good Beginning. Strategies for Teaching Children, 4th Ed* . Pacific Grove, CA: Brooks/Cole Publishing Company.
- Watson, J.M. (1988). Three hungry men and strategies for problem solving. *For the Learning of Mathematics*, 8 , 3, 20-26.
- Wirtz, R. (1978). An elementary mathematics curriculum for ALL children. *A Major Address presented at the National Council of Supervisors of Mathematics and the National Council of Teachers of Mathematics at their Annual Meetings* , San Diego, CA, April, 1978.
- Wheatley, G.H.(1983 - 1984). Problem solving makes math scores soar. *Educational Leadership* , December, 1983 - January, 1984, pp. 52-53.

Obtained from Math Central

<http://MathCentral.uregina.ca/>