

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 1981 Volume VI: Computing

Flowcharting: A Method of Problem Solving

Guide for Curriculum Unit 81.06.03 by Sheryl A. Decaprio

The unit is directed to the middle school student, or those students who have difficulty deciphering and decoding word problems. It may also be used with students taking an elementary computer programming course. The unit introduces flowcharting as a technique for solving word problems. Emphasis is placed upon helping students develop a clear, sequential thinking pattern. Flowcharting is used to solve problems in a logical, ordered sequence. Students are required to explain how they solve multi-step problems by instructing other students, through the flow diagrams they have developed. Basic charting concepts of categorizing data and information in groups of input and output data, operations, and decisions are explained. Students learn how to direct their problem solving techniques rather than guess at how a task is completed. Lessons include charting steps to perform every day tasks outside of the mathematics classroom, to charting formulas and processes of solving mathematical word problems.

(Recommended for 6th, 7th and 8th grade Mathematics.)

Key Words

Computers Flowcharting Basic Mathematics Problem Solving Technique

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