
CAROL YOUCK-COUSINS AND DONNA ELL,

Puzzling it Out

Puzzling it Out by Carol Youck-Cousins (K-12 Mathematics Consultant for the Prairie Valley School Division), carol.youck-cousins@pvsd.ca, and Donna Ell (Secondary Mathematics Teacher at Miller Comprehensive High School), ell@sasktel.net.

Puzzling it Out is a unit designed to connect to curriculum outcomes from the Workplace and Apprenticeship Mathematics 10 and 20 and the Foundations of Mathematics 20 courses. In addition, the potential exists to modify and adapt this unit to be utilized in any mathematics class where teachers are exploring metacognitive problem solving strategies.

The purpose of this unit is to provide an opportunity for teachers and their students to explore the connections between the mathematics of familiar problem solving strategies and how this mathematics can be applied in a less than traditional presentation of playing games or solving puzzles. Therefore, this unit enhances teaching and learning through inquiry and provides classroom-ready resources.

Puzzling it out connects, enhances and celebrates diversity in the classroom. This unit supports differences in ways of knowing and understanding mathematics. The mathematical learning opportunities presented in this unit are presented with a holistic focus. Constructivism, ethnomathematics, and teaching through an inquiry approach support this holistic perspective to learning. This unit allows teachers to create an engaging mathematics environment that supports and meets the needs of culturally and linguistically diverse learners.

The Puzzling it Out unit connects the classroom to the community by inviting community members with cultural gaming and puzzling expertise to come and share their mathematical reasoning and problem-solving strategies with the students.