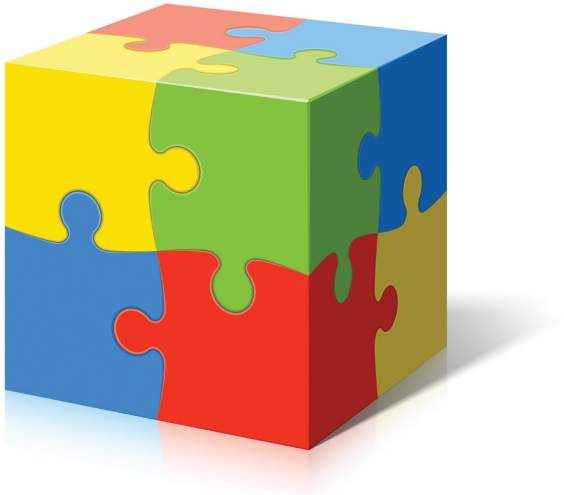
Identify and solve complex problems...

have the confidence and capacity to solve a range of problems, from simple to complex

WHEN GENERATING SOLUTIONS TO COMPLEX PROBLEMS, STUDENTS ARE:

adaptable
compassionate
confident
empathetic *optimistic*
respectful



CROSS-CURRICULAR COMPETENCIES

A cross-curricular competency is an interrelated set of attitudes, skills and knowledge that are drawn upon and applied to a particular context for successful learning and living. They are developed by every student, in every grade and across every subject/discipline area.

- **A. Know how to learn**
- **B. Think critically**
- **C. Identify and solve complex problems**
- **D. Manage information**
- **E. Innovate**
- **F. Create opportunities**
- **G. Apply multiple literacies**
- **H. Demonstrate good communication skills and the ability to work cooperatively with others**
- **I. Demonstrate global and cultural understanding**
- **J. Identify and apply career and life skills**

KEY UNDERSTANDINGS

Alberta students have the confidence and capacity to solve a range of problems, from simple to complex, related to their learning, work, and personal lives.

As engaged thinkers, they:

- draw from multiple perspectives, disciplines and resources to identify problems and determine the most viable solutions;
- approach complex problems with an attitude of optimism and hope; and
- demonstrate respect, empathy , and compassion for all people.

This overview is designed for use by Learning Communities, learning coaches and teacher leaders, or as a self-paced study to enhance and support understanding of a competency-focused, student-centered curriculum. Prepared by ERLC and ARPDC to facilitate understanding of Alberta Education's Ministerial Order on Student Learning.

IMPLICATIONS FOR ENABLING STUDENTS TO IDENTIFY AND SOLVE COMPLEX PROBLEMS

Teachers design learning opportunities that...

- include cross-disciplinary, experiential and/or authentic problems
- facilitate access to a variety of resources, perspectives, contexts and disciplines to help students discern problems and arrive at the best solutions
- identify effective and additional ways to more broadly assess learner problem solving skills

What other implications for designing learning opportunities can you identify?

While generating solutions to complex problems, students...

- identify and clarify problems
- establish clear criteria to make informed decisions or solve problems
- explore a variety of problem solving strategies to generate possible solutions
- assess the potential impact of possible solutions
- select the most viable option
- defend their decisions

What other implications for student learning can you identify?

QUESTIONS FOR REFLECTION AND DISCUSSION

- How does this information link to ways you currently provide learning opportunities for identifying and solving complex problems?
- What are your thoughts and experiences around project-based learning? How can it support the development of problem-solving skills and habits of mind?

FOR MORE INFORMATION

- Alberta Education. (2010). Inspiring education: A dialogue with albertans. Retrieved from http://education.alberta.ca/media/7145083/inspiring%20education%20steering%20committee%20report.pdf
- Alberta Education Curriculum Redesign website. Retrieved from http://education.alberta.ca/department/ipr/curriculum.aspx
- Alberta Education. (2013). Ministerial order on student learning. Retrieved from http://education.alberta.ca/department/policy/standards/goals.aspx

AlbertaRegionalConsortia

March 2014

These materials are available as a result of a grant from Alberta Education to support implementation. Professional Learning resources were created in the Fall of 2013 by ERLC and ARPDC with ongoing revisions as suggested and posted at http://tiny.cc/05767w. For more information contact: info@erlc.ca.