

The reSolve: Mathematics by Inquiry Protocol

reSolve: Mathematics by Inquiry amplifies existing approaches to teaching mathematics through structured and purposeful investigations of mathematical and realistic contexts. The reSolve Protocol provides a description of key features of school mathematics that underpin the Professional and Classroom resources in reSolve.

Strength of Presence			reSolve mathematics is purposeful. reSolve contests a view of school mathematics as a body of disconnected facts and procedures to be learned, by:
L	M	H	
			Presenting mathematics as a way of modelling the real world and as an abstract discipline.
			Focusing on substantial mathematical ideas.
			Supporting a rich interpretation and enactment of the content and proficiencies of the Australian Curriculum: Mathematics.
			Acknowledging mathematics as a creative and imaginative endeavour, continually changing and developing in a technological society.
			Connecting mathematics through deep linkages to other mathematical ideas and to other areas of the curriculum.

Strength of Presence			reSolve tasks are challenging yet accessible. reSolve contests a view that some students can “do” mathematics well and others cannot, by:
L	M	H	
			Activating existing knowledge, developing new knowledge and exploring relationships between key ideas by working on meaningful tasks.
			Engaging students in sustained inquiry, problem solving, decision making and communication.
			Providing opportunity for all students irrespective of background and experience.
			Structuring tasks and using technologies to optimise students’ mathematical development.
			Using evidence of students’ progress to inform feedback and subsequent teaching action.
			Providing prompts and activities meeting a range of student capabilities, from those needing assistance to those ready for further challenge.

Strength of Presence			reSolve classrooms have a knowledge-building culture. reSolve contests a view that mathematics is best learned through copying and memorising, by:
L	M	H	
			Sustaining higher order mathematical thinking through the active role of both teacher and student.
			Challenging existing conceptions and using mistakes as a vehicle for learning.
			Enhancing learning through active exploration of a variety of perspectives, including ideas from other people and disciplines.
			Building success and understanding through collaborative inquiry, action and reflection, enhanced by the use of technologies as tools for working mathematically.
			Eliciting productive dispositions, including productive struggle and the motivation and confidence to take risks.