This rubric identifies the main subskills related to creativity and critical thinking that students should develop as part of their mathematics education. It can be used to reflect on existing teaching practices and design new activities to foster student creativity and critical thinking. It can be adapted to better fit specific contexts or domains. Teachers/faculty can discuss it with students to build understanding of creativity and critical thinking and ensure these skills are taught and learned explicitly. It is not meant to score students or provide them with a continuum of skill progression.

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OECD CONCEPTUAL RUBRIC

MATHS

CREATIVITY
Coming up with new ideas and solutions

Make connections to other maths concepts or to ideas from other disciplines

CRITICAL THINKING
Questioning and evaluating ideas and solutions

Identify and question assumptions and generally accepted ways to pose or solve a maths problem

INQUIRING

Generate and play with several approaches to pose or solve a maths problem

IMAGINING
Consider several perspectives on approaching a maths problem

DOING
Pose and envision how to solve meaningfully a maths problem in a personally novel way

EXPLAINING
Both strengths and limitations of different ways of posing or solving a maths problem based on logical and possibly other criteria

REFLECTING
Reflect on steps taken to pose and solve a maths problem

Reflect on the chosen maths approach and solution relative to possible alternatives