Design for Cognitive Complexity

Educators take an asset-based approach to create conditions for learning that expect students to engage in higher-order thinking.

Support students in developing a Growth Mindset, feelings of self-efficacy, and creating a safe and secure learning environment that raises the level of cognitive demand.

- 10 Strategies for Fostering a Growth Mindset in the Classroom
- <u>Teaching Strategies that Sustain Growth</u> Mindsets
- Effective Effort Rubric: This can be used to understand where a learner falls on a fixed/ growth mindset continuum.
- Support students in creating goals, establish plans for achieving those goals, and reflecting on their progress during learning and throughout the year. E.g. using strategies such as <u>Goal Cards</u>.
- Take the stance of a "warm demander."
 - Warm Demander Chart

Design learning experiences that incorporate the science of how students learn such as the <a href="https://www.when.com/when.com

• Supporting Dependent Learners to Become Independent Thinkers

Use <u>open-ended</u> and <u>higher-order</u> questioning and intentional lesson design to engage students in critical thinking at the upper levels of <u>Bloom's Taxonomy</u> and <u>Cognitive Rigor Matrices</u>.

Peer-to-Peer Engagement

Educators will create opportunities for students to consolidate and apply their thinking and learning with their peers.

Student Talk and Voice: Teachers will create opportunities for all students to participate in structured class discussions and to provide feedback to each other.

- Discussion Strategies
- Math Language Routines
- EL Classroom Protocols
- Boost students' confidence with thoughtful <u>descriptive feedback</u> such as the "Glow & Grow" tool.

Cooperative Learning: Students will apply skills and knowledge they have been taught and turn to one another for support and enrichment

- Basic Group Work: Clarifying beliefs, values, or ideas, sharing, not solving, no individual accountability through strategies such as <u>Think</u>, <u>pair</u>, <u>share</u>, <u>Opinion stations</u>, <u>Carousel</u>, etc.
- Productive Group Work: Consolidating understanding using argumentation, resolving problems, racing consensus, or identifying solutions, individual accountability using strategies such as:
 - Conversation roundtable
 - Collaborative posters
 - Reciprocal teaching
 - o <u>Jigsaw</u>

Independent Engagement

Educators will develop strategic opportunities for students to independently engage in a productive struggle, apply what they have learned, and provide space for students to ask new questions about the world around them.

Employ student-centered, inquiry-based instruction to engage students in actively discovering information and accumulating evidence to support their investigations.

- Inquiry-based Instructional Strategies
- "From Challenges to Controversies" –
 Students extend and apply critical content knowledge as they generate and test ideas.
- Responding to Stimuli using Evidence: <u>Students will respond to a text using a</u> <u>variety of skills to demonstrate their</u> <u>understanding</u> and <u>Using LDC templates</u> (linked above)

Engage students in <u>Metacognition strategies</u> such as:

- Conferencing with students
- Students self-identify success criteria that will be difficult for them
- Thumbs-Up When Ready & Processing Cards

Contributors to the initial version of this document:

- Ryan Keating
- Michele Sadik
- Rebecca Fox
- Kristen Shaw

- Dr. Edel Maeder
- Jessica Mellenthine
- Tricia Gonzalez
- Steve Denaker

- Stacey Sookram
- Rebecca Boyle
- Katy Arzuaga
- Elizabeth Helbig