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Performance Standards

for STEM

K–12 and Postsecondary Institutions

Effective July 1, 2022

STEM Certification

What it means

STEM education engages learners in inquiry processes that promote deep thinking in social learning contexts, with clear connections to outcomes associated with success at progressive levels of learning and work. Cognia's STEM Certification Standards provide a set of evaluative criteria that form the foundational elements of a high-quality STEM program within a school or system and contain concepts that serve as a roadmap for implementing high-quality STEM practices and processes. Additionally, the STEM certification process allows Cognia Review Teams to evaluate an institution's STEM implementation and provide feedback that validates current practices and informs opportunities for continued improvement.

Keys to STEM Learning

In addition to meeting Cognia's STEM Certification Standards and Assurances, a quality STEM program is:

- Thoroughly embedded in and supported by the institution
- Defined by clear expectations for stem learning outcomes
- Composed of integrated activities within and beyond the school day
- Focused on performance-based demonstrations of learning

STEM Standards

STANDARD 1

Learners engage in STEM learning experiences that integrate all STEM disciplines with an emphasis on processes and practices associated with STEM.

STANDARD 2

Professional staff members implement high quality STEM courses and curriculum aligned to recognized standards and organized into interdisciplinary frameworks.

STANDARD 3

Professional staff members and leaders participate in an ongoing system of STEM-specific professional learning.

STANDARD 4

Leaders engage a diverse network of community partners and stakeholders in order to support and sustain STEM programs and initiatives.

STANDARD 5

Leaders ensure that all stakeholders have ongoing opportunities to access information and learn about STEM implementation.

STANDARD 6

Learners engage collaboratively in authentic inquiry during ongoing units of study.

STANDARD 7

Learners engage in self-directed STEM learning guided by professional staff members who are effective facilitators of learning.

STANDARD 8

Learners benefit from a formal structure of within-school and extracurricular opportunities to extend STEM learning.

STANDARD 9

Learners demonstrate their learning through performance-based assessments and have opportunities to develop self-assessment and self-monitoring skills.

STANDARD 10

Learners demonstrate STEM literacy outcomes that prepare them for the next level of learning and work.

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