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Description automatically generated with medium confidenceSTEAM Approach: Staff Self-Check

**Checklist**



**What to do:** ***If the STEAM approach is new to program staff,*** ask them touse this self-check individually to gauge their knowledge and interest in aspects of the STEAM (or STEM) approach to teaching and learning. Once they identify strengths and pinpoint areas where they want to learn more, invite them to discuss their findings, questions, and concerns.

***After you’ve used the STEAM approach for a few weeks,*** have staff do the self-check again. Invite them to discuss how they’ve grown as STEAM educators. If several staff members find a certain aspect challenging, consider making it the focus of a future professional development event.

**Why it matters:** Staff enthusiasm helps to spark student engagement. The hands-on, inquiry-based, STEAM learning approach encourages creativity, new perspectives, and student interest.

**STEAM** is a learning approach that uses science, technology, engineering, the arts, and mathematics (STEAM) as access points for guiding student inquiry, dialogue, and critical thinking.

Every staff member can support your program’s STEAM approach in some way. Some may think of fun ways to help students learn STEAM vocabulary terms. Some might have ideas for activities. Others may enjoy leading projects, sharing their own knowledge and expertise, or reaching out to engage STEAM professionals and community partners.

# STEAM Approach Self-Check

**Instructions:** Put a check mark by each statement that’s true for you. Then review the statements with no check marks and circle one or two areas where you’d like to improve or learn more.

## Sparking Interests, Expanding Horizons

* I use inquiry-based learning to awaken curiosity and a sense of wonder about the world.
* I listen for and tap into students’ interests.
* I provide opportunities for students to tackle real-world challenges or to create things that have value or meaning.
* I introduce students to STEAM vocabulary, concepts, materials, and experiences.
* I create activity centers or makerspaces to provide opportunities for active exploration.
* I create opportunities for STEAM-related field trips.
* I provide materials that support STEAM concepts and exploration.
* I give students opportunities to give presentations, demonstrations, and performances.
* I invite diverse local professionals in STEAM fields to share their stories and expertise.
* I form student groups, clubs, or committees for STEAM activities and projects.

## Connecting STEAM With School Content

* I offer opportunities for interdisciplinary learning.
* I’m aware of state and district STEAM standards and goals for students.
* I know the names of my students’ school-day teachers, especially those who teach science, math, technology, and the arts.
* I communicate with students’ school-day teachers and career guidance counselors.
* My students use STEAM vocabulary.
* My students can explain how STEAM activities connect with school learning.
* My students can explain and use the design thinking process.

## Dedicating Time to STEAM

* I blend STEAM into the program in a variety of ways.
* I dedicate program time to STEAM activities.
* I make STEAM materials available to students.
* I support students’ STEAM learning during homework time.
* I allocate the appropriate amount of time for STEAM activities and projects.
* I pay attention to student attendance, participation, and engagement in STEAM activities.

## Tapping Resources to Support STEAM Learning

* I’m aware of local STEAM resources and expertise.
* I engage families and invite them to contribute their skills and knowledge.
* Students are aware of local businesses, institutions, organizations, and universities involved with STEAM.
* I invite experts to present during program time.
* I identify and use high-quality STEAM activity and project plans.
* I use STEAM curriculum effectively.
* I draw on skilled volunteers and university partners.
* I plan and provide career exploration activities.
* I make sure students have access to tools and technology for STEAM exploration.

## Ensuring Student Participation and Engagement

* Students attend consistently.
* Students seem eager to explore and engage with STEAM materials and activities.
* Students ask questions and seek to know more about STEAM topics.
* Students can describe and explain their STEAM activities and projects.
* Students persist over time, in ways that are age appropriate.
* Students participate in individual and group presentations or demonstrations.
* Students listen to, watch, or consider presentations and demonstrations respectfully.
* Students actively engage in activity and project planning and development, as appropriate.
* Students offer ideas and comments, and take part in brainstorming activities.
* Students participate in review, feedback, and suggestion sessions with staff and peers.
* Students use equipment and materials properly.
* Students respect the safety rules when doing activities and experiments.

## Reflecting on My Knowledge, Skills, and Growth as a STEAM Educator

* I’ll use the Staff Observation and Review Checklist on the next page to self-assess and reflect on my knowledge, skills, and growth as a STEAM educator.
* I’ll ask my supervisor or a trusted colleague to use the Staff Observation and Review Checklist on the next page to provide feedback on my performance as a STEAM educator.

# Staff Observation and Review Checklist

**Directions:** Use this as a self-assessment or as an observation checklist to provide specific feedback to another staff member.

| **Creates an engaging STEAM learning environment** | **Strong** | **OK** | **Needs work** |
| --- | --- | --- | --- |
| Motivates students from outset |  |  |  |
| Presents activities in a way that builds excitement and engagement |  |  |  |
| Creates opportunities for youth leadership and independent work |  |  |  |
| Solicits and honors student voice and choice |  |  |  |
| Facilitates student expression and creativity |  |  |  |
| Ensures equitable access and inclusion |  |  |  |
| Engages students in establishing procedures and norms |  |  |  |
| **Facilitates active learning** | | | |
| Supports group work |  |  |  |
| Provides inquiry-based activities and experiential learning |  |  |  |
| Models STEAM vocabulary, demonstrates techniques, and provides information or guidance when appropriate |  |  |  |
| Refers youth to tools and resources when appropriate |  |  |  |
| Facilitates use of outside resources |  |  |  |
| Ensures that students understand activity goals and objectives |  |  |  |
| Checks for comprehension |  |  |  |
| Creates groups, buddy systems, or other supports for English learners and students with special needs |  |  |  |
| Asks open-ended questions |  |  |  |
| Guides students in providing constructive feedback to peers |  |  |  |
| Supports self-reflection and a growth mindset |  |  |  |
| **Engages other adults** | | | |
| Works respectfully and effectively with volunteers |  |  |  |
| Works respectfully and effectively with experts and partners |  |  |  |
| Works respectfully and effectively with parents and families |  |  |  |
| **Builds own skills** | | | |
| Attends trainings |  |  |  |
| Participates actively in trainings |  |  |  |
| Leads segments or trainings |  |  |  |
| Suggests topics for trainings |  |  |  |
| Actively seeks skill-building opportunities and resources |  |  |  |
| Participates openly in reviews |  |  |  |
| Revises work and seeks feedback |  |  |  |
| Supports peers |  |  |  |

**Comments:**

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Description automatically generated**Use this space to record insights, ideas, and goals to improve your knowledge and practice of STEAM education:**

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