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Description automatically generated with medium confidenceFour Characteristics of STEAM: Planning Worksheet

**Planner**



**What to do:** Use this template to help you plan STEAM projects and activities that are creative, interdisciplinary, experiential, and inquiry based.

**Why it matters:** When you unleash the full power of STEAM, you give students opportunities to build interests and skills that can support success at school and in future careers.

| **Characteristics**  (Include all four) | **Students will have opportunities to…**  (Include at least two for each characteristic) |
| --- | --- |
| **Creative**  Tackles a real-world challenge or creates something that has value or meaning | * Identify a problem no one has thought of before. * Create a new solution to a known problem. * Explore multiple solutions. * Think of new ways to use materials or technologies. * See themselves as creators, inventors, and solution generators. * Discover or develop knowledge, skills, and talents. * Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   **Notes/ideas:** |
| **Interdisciplinary**  Includes content and skills from more than one field of knowledge | * Explore one or more of the STEAM disciplines in depth. * Make new connections between STEAM disciplines. * See how school-day subjects connect to real-world issues. * Learn about people, past and present, who’ve used STEAM knowledge and skills to create something meaningful and useful. * See how people in different careers use knowledge and skills from multiple disciplines. * Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   **Notes/ideas:** |
| **Experiential**  Provides opportunities for active exploration (for example, through a makerspace) | * Make choices and decisions. * Try new ideas, strategies, materials, roles, and processes. * Contribute to a team effort. * Develop knowledge and skills through hands-on, minds-on activities. * Reflect on what they do, think, and feel during and after activities. * Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   **Notes/ideas:** |
| **Inquiry Based**  Follows the design thinking process (empathize, define, ideate, prototype, test) | * Ask questions, and learn to ask better questions. * Explore and try potential solutions. * Develop a sense of curiosity and wonder. * Explore how scientists, artists, and inventors from different disciplines build on each other’s ideas to make discoveries and create new things. * Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   **Notes/ideas:** |

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