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| **Pitsco STEM PBL Planning Form** | | | | | | | | | | |
| This blank form can be used to plan your own STEM PBL Unit from scratch | | | | | | | | | | |
| STEM Challenge Summary | | | | | | | | | | |
| Challenge Name | |  | | | | | | | | |
| Duration | | Students should be given ample time and space for completion. | | | | | | | | |
| Grade Level(s) | |  | | | | | | | | |
| Cross-Curricular Areas (in addition to STEM) | |  | | | | | | | | |
| Challenge Overview | | The project should provide a meaningful, real-world STEM challenge that requires students to think critically about multiple possible solutions. Include a brief description of the plan for public engagement. | | | | | | | | |
| Challenge Question | | This should provide context and meaning for students as they complete the STEM challenge. | | | | | | | | |
| Public Engagement | | | | | | | | | | |
| Final Product | | Group Responsibilities | |  | | | | | | |
| Individual Responsibilities | | Depending on group size, you might assign roles to students in their groups. Possible roles could include group leader, materials coordinator, communication coordinator, technician, creative lead, research specialist, and other roles specific to the project. | | | | | | |
| Presentation Audience (checklist) | | Class | |  | | | | | | |
| School | |  | | | | | | |
| Community | |  | | | | | | |
| Event | |  | | | | | | |
| Web | |  | | | | | | |
| Other | |  | | | | | | |
| Authentic Inquiry | | | | | | | | | | |
| Standards | |  | | | | | | | | |
| 21st-Century Skills | | 4Cs | |  | | | Other (list) | |  | |
| Collaboration | |  | | |  | |  | |
| Communication | |  | | |  | |  | |
| Critical Thinking | |  | | |  | |  | |
| Creativity | |  | | |  | |  | |
| Local Connection | | Students research local resource availability and work with adults to determine best ideas. Students research related careers available in their community, city, or regional area. Students can utilize local organizations, such as the chamber of commerce or STEM Ecosystem, to assist in identifying availability of resources. | | | | | | | | |
| Resources Available | | On-Site People, Facilities | |  | | | | | | |
| Equipment | |  | | | | | | |
| Materials | |  | | | | | | |
| Community Resources | |  | | | | | | |
| Challenge Launch | | Describe the opening event that will engage students with the STEM challenge (anticipatory set). | | | | | | | | |
| Assessment | | | | | | | | | | |
| Evaluative Methods | | **Formative** | | | | | **Summative** | | | |
|  | | X | Points | |  | X | Points | |
| Quizzes/Tests | |  |  | | Written Product |  |  | |
| Prototypes | |  |  | | Oral Presentation |  |  | |
| Journal/Learning Log | |  |  | | Peer Evaluation |  |  | |
| Preliminary Plans/Outlines | |  |  | | Self-Evaluation |  |  | |
| Rough Drafts | |  |  | | Rubric |  |  | |
| Practice Presentation | |  |  | | Tests |  |  | |
| Notes | |  |  | | Other |  |  | |
| Checklists | |  |  | |  |  |  | |
| Concept Maps | |  |  | |  |  |  | |
| Other | |  |  | |  |  |  | |
|  | |  |  | |  |  |  | |
| Reflection Methods | | Journal | |  |  | |  |  |  | |
| Engineering Notebook | |  |  | |  |  |  | |
| Whole-Class Discussion | |  |  | |  |  |  | |
| Survey | |  |  | |  |  |  | |
| Focus Group | |  |  | |  |  |  | |
| Other | |  |  | |  |  |  | |
|  | |  |  | |  |  |  | |
| **Challenge Checkpoints** | | | | | | | | | | |
| Think of specific points where you plan to check in with your students. These points should be major events the students experience during the challenge that will enable them to evaluate their progression. | | | | | | | | | | |
| **Challenge Schedule** | | | | | | | | | | |
| Use a calendar to schedule your challenge checkpoints. This should be flexible to meet your scheduling needs. | | | | | | | | | | |

**STEM PBL Grading Rubric**

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| --- | --- | --- | --- | --- |
| **Completed Items** | **Yes** | **No** | **Possible Points** | **Points** |
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| Total Points | | |  |  |