# The Collaborative Curriculum Development Guide
Elements of an Exemplary
Multidisciplinary, Problem/Solution-Based Unit

The following table supports the development of an exemplary multidisciplinary, problem/solutions-based unit. Use these elements for each component on the template to review your work. As a team, determine your next steps for revision.

| Foundation for Units | | |
|---|---|---|
| **Essential Unit Component** | **Elements of an Exemplary**<br>**Multidisciplinary, Problem/Solution-Based Unit** | **Curriculum Team's Next Steps** |
| **Overview of Unit** | • **Invitation-to-Engage Questions** are broad, thought provoking, open-ended, stimulate students' curiosity, and support the learning intent of the unit. They often begin with *why* or *how*.<br>• The **Unit Preview** creates a clear overview of the unit, including the primary focus for each sequence.<br>• The **Problem/Solution Statement** is succinct and clearly aligned with the flow designed in the unit's Learning Sequences. | |
| **Magnet Standards** | • **Magnet Standards** (ELA and Cross Disciplinary) are limited in number and well-coordinated to support deep student learning.<br>• Each Magnet Standard is addressed with the **Bloom's Taxonomy** level of cognitive rigor and the **Depth of Knowledge** to be achieved by students by the end of the unit.<br>• ELA Magnet Standards selected for the unit **integrate multiple ELA strands** (Reading for Information, Reading Literature, Writing, Speaking and Listening, Language)<br>• **Prerequisite skills and concepts** are identified for each Magnet Standard. They are representative of earlier grade levels' standards and clearly provide a possible learning progression for students who are struggling to master current grade level standards.<br>• **Extended skills and concepts** are identified for each Magnet Standard. The extended skills and concepts provide a clear learning path for students who have already mastered the unit's identified grade level standards. | |
| **Cross-Discipline Standards** | • **Cross-Discipline Standards** are included from science, social studies, math, visual arts, and other content areas. These standards are at grade-level and are clearly aligned to the overall focus of the unit. | |

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| Assessments | | |
|---|---|---|
| **Essential Unit Component** | **Elements of an Exemplary Multidisciplinary, Problem/Solution-Based Unit** | **Curriculum Team's Next Steps** |
| **Pre-Assessment** | • The pre-assessment addresses all of the **concepts and skills included in the magnet standards** identified for the unit.<br>• The pre-assessment is constructed according to **research-based assessment guidelines.**<br>• All constructed response items and performances are supported by a **rubric that is anchored on the standards** identified for the unit.<br>• **Rubrics** contain specific, measurable criteria, are aligned with the standards, and describe multiple levels of achievement.<br>• An **answer key** is included that addresses any selected response items on the assessment.<br>• **Directions are clearly stated** so that students understand exactly what they are being required to do. | |
| **Post-Assessment** | • The post-assessment addresses all of the **concepts and skills included in the magnet standards** identified for the unit (validity).<br>• The post-assessment is constructed according to **research-based assessment guidelines.**<br>• All constructed response items and performances are supported by a **rubric that is anchored on the magnet standards** identified for the unit.<br>• **Rubrics** contain specific, measurable criteria, are aligned with the standards, and describe multiple levels of achievement.<br>• An **answer key** is included that addresses any selected response items on the assessment.<br>• **Directions are clearly stated** so that students understand exactly what they are being required to do. | |

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| Vocabulary | | |
|---|---|---|
| **Essential Unit Component** | **Elements of an Exemplary Multidisciplinary, Problem/Solution-Based Unit** | **Curriculum Team's Next Steps** |
| **Tier 2 and Tier 3 Vocabulary Words** | • Unit specific **Tier 2 words** (frequent academic words) and **Tier 3 words** (infrequent field of study words) are provided.<br>• Definitions for each word are provided. For Tier 2 words, definitions are common across grade levels.<br>• Vocabulary development practices are provided that are **anchored in research** and provide powerful practices that teachers can implement | |

| Overview of Learning Sequences | | |
|---|---|---|
| **Essential Unit Component** | **Elements of an Exemplary Multidisciplinary, Problem/Solution-Based Unit** | **Curriculum Team's Next Steps** |
| **Structure of Unit** | • The sequences **proceed logically** to build a deeper understanding of the topic/problem while developing the skills and concepts in the identified standards:<br>   ○ **Sequence One** focuses on acquiring knowledge to deeply understand a problem, topic, and/or source (anchor text).<br>   ○ **Sequence Two** concentrates on students gaining a deeper understanding of the problem or topic being examined, often through additional research and/or independent application.<br>   ○ **Sequence Three** involves determining and examining a solution or multiple solutions.<br>• Sequences begin with **questions** that engage the learner in continuous inquiry. They are specific to the sequence, but they also connect to the unit's broader Invitation-to-Engage Questions.<br>• The **Formative Evidence of Student Learning** at the end of each sequence is clearly aligned with the **rigor of the sequence and the Magnet Standards** that have been identified for the unit.<br>• The **Showcase** logically follows the sequences. This final production provides an opportunity for students in small groups or individually to **present their work to people beyond their classroom** as they explain their inquiry, share their knowledge about the problem they explored, and suggest possible solutions. | |

# The Collaborative Curriculum Development Guide
Elements of an Exemplary
Multidisciplinary, Problem/Solution-Based Unit

| Overview of Learning Sequences (Continued) | | |
|---|---|---|
| **Essential Unit Component** | **Elements of an Exemplary Multidisciplinary, Problem/Solution-Based Unit** | **Curriculum Team's Next Steps** |
| **Open-Ended Problems** | • The sequences are carefully designed to stimulate students to **identify problems**, **gather & interpret data**, and develop and present a **variety of authentic solutions** throughout the unit.<br>• The sequences require students to **research more information** for understanding a problem than is initially given.<br>• The sequences generate interest, causing students to **ask additional questions**.<br>• The sequences require students to think **independently** as well as to **collaborate** with their peers.<br>• The sequences are designed to stimulate **complex thinking** (BT, level 6; DOK, level 4) | |
| **Additional Components of Future-Focused Leaning** | • The sequences provide **authentic learning experiences** that replicate real-world tasks.<br>• Inquiry is sustained throughout the sequences, **stimulating student curiosity** and **inspiring student creativity and innovation**.<br>• The sequences develop **critical thinking** and **collaboration** skills and help students to foster a strong **work ethic**.<br>• **Open-ended tasks and** opportunities for **choice** (e.g., topics, resources, group members, products, and organization) are built into the sequences so that students can make **personal connections** according to their interests and concerns.<br>• The sequences provide opportunities for students to explore **cross-cultural perspectives.** | |
| **Formative Evidence of Student Learning** | • Formative Evidence of Student Learning (product, performance) at the end of each sequence clearly **measures the mastery of the skills and concepts in the standards** identified for the sequence at the appropriate BT and DOK levels.<br>• The Formative Evidence of Student Learning (product, performance) **demonstrates** that students have the knowledge and skills to **move forward to the following sequence.** | |

# The Collaborative Curriculum Development Guide
## Elements of an Exemplary

| Essential Unit Component | Elements of an Exemplary Multidisciplinary, Problem/Solution-Based Unit | Curriculum Team's Next Steps |
|---|---|---|
| **Learning Sequences One, Two, Three** (Review Each Sequence Using the following component and element descriptions.) | | |
| **Overview** | • The **title** provides a quick reference point for the content of the sequence.<br>• **Learning Sequence questions** are specific to the sequence for which they are written and align with the unit's Invitation-to-Engage Questions.<br>• **The Learning Sequence Overview** provides a summary of the primary learning opportunities and the final product/performance for the sequence. | |
| **Standards Cluster** | • The **Standards Cluster** is comprised of **ELA Magnet Standards, ELA Reinforcing Standards,** and other **Interdisciplinary Standards**.<br>• The standards within the cluster **support one another** to ensure deeper learning.<br>• The **ELD standards align with the ELA Magnet standards** selected for the sequence and include the language acquisition levels required by the State. | |
| **Evidence of Student Learning** | • **Evidence of Student Learning** (product, performance) at the end of each Learning Sequence **aligns with the identified standards** at the appropriate BT and DOK levels.<br>• Evidence of Student Learning (product, performance) **demonstrates** that students have the **knowledge and skills** to move forward to the following sequence or the Showcase for Sequence Three.<br>• A **rubric** is included that aligns with the Learning Sequence standards; contains specific, measurable criteria; and describes multiple levels of achievement. | |
| **Possible Teaching and Learning Progression (Including Literacy Shifts and Formative Learning)** | **General Characteristics:**<br>• The Teaching and Learning Progression **provides clear steps** from which teachers can easily plan lessons.<br>• **Choice** is offered to the students (topics for research, books and articles to read, group participation and membership, topic to study).<br>• The Teaching and Learning Progression **logically builds students' knowledge and skills** to prepare them for success on the final evidence (product/performance) to be completed and assessed for the sequence.<br>• The **Magnet and Reinforcing Standards** are clearly addressed within the teaching and learning progression.<br>• **Digital tools** and **Internet resources** are seamlessly incorporated in the sequences to **extend students' learning** | **General Characteristics** |

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## Elements of an Exemplary
## Multidisciplinary, Problem/Solution-Based Unit

| Essential Unit Component | Elements of an Exemplary Multidisciplinary, Problem/Solution-Based Unit | Curriculum Team's Next Steps |
|---|---|---|
| **Possible Teaching and Learning Progression (Including Literacy Shifts and Formative Learning (Continued)** | **Literacy Shifts are Embraced in the Sequence:**<br>• Critical communication skills are developed by inviting students to respond to the **varying demands of audience, task, purpose, and discipline**.<br>• Students are required to **use evidence to support their points** in writing and speaking and to **evaluate evidence** when considering the thoughts of others.<br>• **Text-based evidence** (in writing and discussions) is required when textual information and analysis are included in the learning experience.<br>• **Close reading** of grade level appropriate complex texts — literary and informational — is emphasized.<br>• Students' are provided opportunities to **read complex texts independently.**<br>• **Anchor texts and connected text sets** are provided throughout the unit.<br>• **Stimulating, text-dependent questions** are provided.<br>• **Writing from multiple sources** is required with an emphasis on research, information, and argumentation.<br>• **Substantive academic discussions** that strengthen student listening and response skills are included.<br>**Formative Learning Practices are Included in the Sequence:**<br>• Students are involved in **generating the standards-based criteria** by which their work is being assessed.<br>• **Models** of the product/performance expected of students are provided and students have the opportunity to **deeply engage** with the models.<br>• Students are provided with clear **feedback** about the quality of their work from their peers, teachers, and perhaps other members of the community and provided with **multiple opportunities to engage in revision**.<br>• Students are given multiple opportunities to **provide feedback to one another and to engage in peer teaching.**<br>• Students are given the opportunity to engage in **metacognitive reflection**, establishing their own **learning goals and plans-of-action** for next steps in learning. | **Literacy Shifts**<br><br><br><br><br><br><br><br><br><br><br><br>**Formative Learning Practices** |

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| Essential Unit Component | Elements of an Exemplary Multidisciplinary, Problem/Solution-Based Unit | Curriculum Team's Next Steps |
|---|---|---|
| **Instructional Practices** | • Instructional Practices or strategies are **research-based** and clearly **align with the suggested teaching & learning progression.**<br>• **Multiple** (minimally three) Instructional Practices or strategies **provide options** from which teachers can select in order to better meet the needs of a **variety of learners** — those who are on grade level, those who need more support, and those who need an additional challenge.<br>• The practice/strategy is clearly **labeled,** and an **explanation is provided that connects** the practice/strategy to the specific sequence.<br>Additional links are provided that give more **general information** about the practice/strategy. | |
| **Resources** | • Resources are provided that **support each item** in the teaching and learning progression.<br>• Resources are **well organized** and **readily available** (either a download or active link) for teachers to use easily as they are planning their lessons. | |
| **Next Steps in Formative Learning for Students and Educators** | • Students and teachers are guided (through questions and prompts) to engage in **thoughtful, comprehensive reflection** about where students are in their mastery of the concepts and skills in the identified standards before and during the sequence as well as after its culmination.<br>   ○ Students set **goals for continued learning** and establish a plan of action (on a provided template) that is specific about the concepts and skills in the standards identified for the sequence.<br>   ○ Guidelines for **evidence to discuss and questions to explore** are provided for collaborative **teacher-based teams** so that teachers are supported as they work to improve their practices. | |

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| Showcase | | |
|---|---|---|
| **Essential Unit Component** | **Elements of an Exemplary Multidisciplinary, Problem/Solution-Based Unit** | **Curriculum Team's Next Steps** |
| | • The **Showcase** logically follows the sequences providing an opportunity for students in small groups or individually to **present their work to people beyond their classroom** as they explain their inquiry, share their knowledge about the problem they explored, and suggest possible solutions.<br>• Students are provided with opportunities for **choice** (e.g., topic, resources, group members, products, and organization) for their showcase presentations.<br>• A **rubric** is included that **contains specific, measurable criteria**, is aligned with the standards, and describes multiple levels of achievement.<br>• The necessary **resources** for the showcase are included. | |