Crosstown High Competency and Continuum Prototypes | Practitioner Guide 2018

WORKING DRAFT

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BACKGROUND

In the spring of 2018, the Crosstown High Leadership Team partnered with reDesign to adapt a set of competencies aligned to the Crosstown values and vision and the XQ learner goals. Through this work, we have sought to define the critical components of how a student becomes a proactive, curious, and perpetual learner, and a future- and solutions-oriented designer. **This work is grounded in Crosstown High's vision that all graduates will be lifelong learners with the knowledge, skills, and dispositions to understand and pursue solutions to our world's evolving challenges.** The competencies detailed in this document represent an effort to make this vision actionable in every classroom and learning space in the school.

The competency design and development work, led by our partners at reDesign, was guided by the following design principles:

> **LEARNER-CENTERED**: Each competency and its associated continuum are essential tools to support student-centered teaching and learning. They significantly increase transparency for learners and their families about the developmental path from novice-to-expert (Collins, Brown, Holum, 1991; Dreyfus & Dreyfus, 1980, 2005) for college, workforce, and civic readiness. They also create an opportunity for schoolwide alignment among educators as it relates to creating and assessing learning experiences that help learners develop the knowledge, skills, and dispositions to understand and pursue solutions to our world's evolving challenges.

RESEARCH-BASED: Each competency and its associated continuum reflect conceptual models, theories, and frameworks grounded in research from relevant fields, as well as in industry analysis, workforce readiness, and job forecasting studies. Sources are cited in the Reference section of this document.

INTEGRATIVE AND CONTEXTUALIZED: Rather than creating discrete descriptors for “critical thinking” and “creativity,” two elements of Crosstown High’s values, these competencies take an integrative design approach that defines authentic contexts (e.g., Investigating Through Inquiry, Leading Teams) in which multiple world-class skills are brought to bear.

The Crosstown High competencies are a prototype ready to be field-tested during Crosstown High’s inaugural year. As we engage with the prototype competencies in the 2018-19 school year we expect to learn, explore, and provide critical feedback that will help inform future iterations of the competencies and continua.

COMPETENCIES AT A GLANCE

Crosstown High has developed twelve cross-cutting competencies designed to help adults and students at Crosstown operationalize the Mission of Crosstown throughout the school. These competencies are designed to work hand-in-hand with our state standards (See *Competencies and Standards* section). The competencies are shown in the table below.

CROSSTOWN PROTOTYPE COMPETENCIES

Lead One's Learning	**I am a self-driven, self-directed inventor of my own learning path.**
Reason Quantitatively	**I am a data-based problem solver and mathematical thinker.**
Read Critically	**I am a critical reader.**
Lead Inquiry	**I am a curious sense-maker.**
Design solutions	**I am a generative thinker and creative designer.**
Express oneself boldly	**I am a compelling writer, speaker, and creator.**
Develop Self-Knowledge	**I am a reflective builder of self-knowledge.**
Collaborate on Teams	**I am a self-aware team member, essential co-creator, and talent-seeker.**
Sustain Wellness	**I am an intentional champion of my own wellness.**
Build Community	**I am a proactive and purposeful community member.**
Learn from the Past	**I am a holder of foundational historical and cultural knowledge.**
Engage as a Citizen	**I am a fully engaged citizen.**

ORGANIZING STRUCTURE

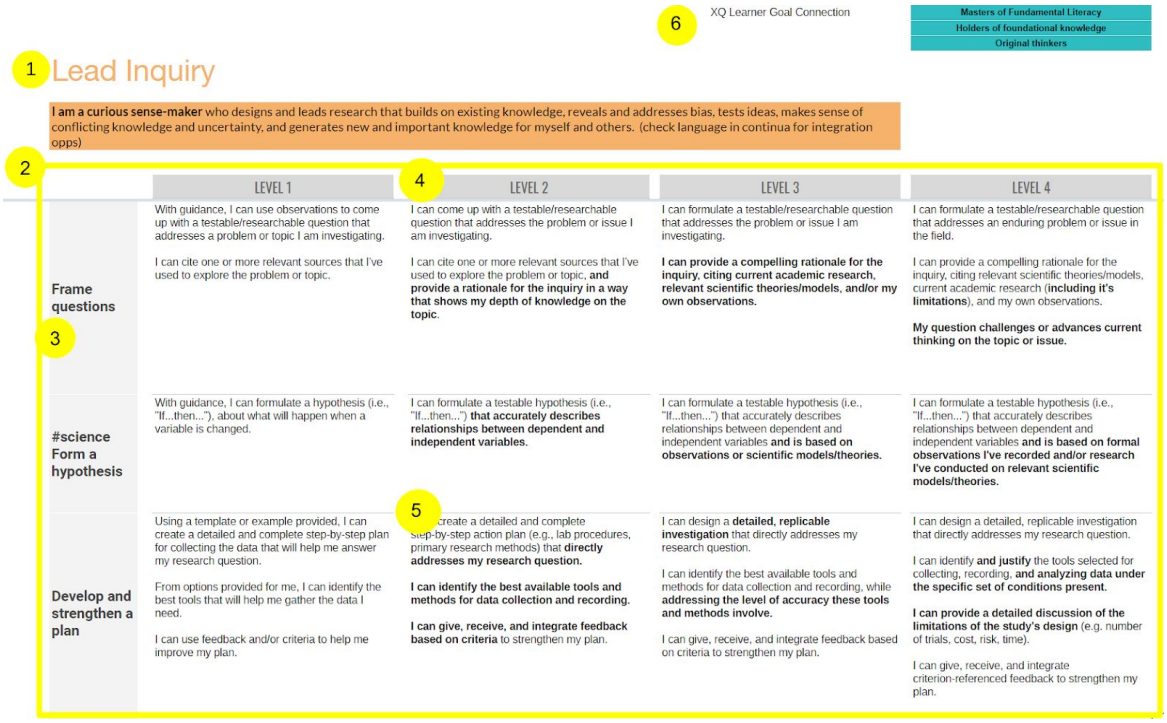
COMPETENCIES

Each Crosstown prototype competency is made up of a set of related, interdependent skill components that, taken together, are essential to developing at high levels of sophistication in order to achieve expertise in each area. Each competency aligns to one or more aspects of the Crosstown Vision and the XQ Learner Goals. See the *Profile Matrix* section for a visual representation of these intersections between competencies and the Profile.

CONTINUA

For each competency skill component, a developmental continuum with four performance levels has been developed that describes how the interrelated skills evolve from novice to expert.

Competency and Continuum Excerpt: Investigating Through Inquiry



The graphic above is a simple screenshot of one of the twelve competencies. Each competency (1) has its own corresponding developmental continuum (2) that shows how each of the essential skill components of the competency (3) progress from novice to expert. Each continuum has four performance levels (4), and for each level, a set of performance level descriptors (5) provide indicators describes the target performance. **Please note Level 4 represents college readiness.** A glossary of terms is provided below to help clarify the elements of the competency framework:

1	Competency	A core capability, made up of a set of essential, related, measurable skills, which is demonstrated through the ability to successfully apply skills toward completion of novel tasks with strong results.
2	Continuum	A novice-to-expert skill progression that describes in concise but detailed, student-facing, developmental language how the skill components becomes more sophisticated as learners progress toward the desired learning outcome or goal.
3	Skill component	A set of processes, skills, and/or strategies that are essential to developing and demonstrating the competency.
4	Performance Levels	A set of incremental milestones on a novice-to-expert continuum that describe particular levels of ability for a skill component as it develops toward a desired level of expertise.
5	Performance Level Descriptors	A set of indicators that describe in detailed language the observable, measurable component of a skill demonstration at a particular performance level. The XTH Performance Level Descriptor Definitions: • Level 1 Emerging: The student demonstrates the skills at a level aligned with early or pre-high school expectations. • Level 2 Developing: The student demonstrates the skills at a level aligned with the first half of high school expectations. • Level 3 XTH Graduate Proficient: The student demonstrates the skills at a level aligned to that expected for a Crosstown High graduate. • Level 4 Honors: The student demonstrates the skills at a college and career ready level.

6 **XQ Learner Connection** The specific XQ Learner Goal that is developed and demonstrated through the competency.

HOW DO COMPETENCIES AND STANDARDS WORK TOGETHER?

Competencies and standards work in conjunction with each other to ensure that educators and learners have the practical tools to monitor learning and measure growth of essential knowledge, skills, and characteristics.

HOW ARE COMPETENCIES DIFFERENT FROM STANDARDS?

Competencies are different from standards in a number of important ways. Some of the most important distinctions are listed below:

- **Competencies and their associated continua are designed to be student-facing and usable to students** in their pre K-12 learning journey, whereas the target audience of state standards is typically educators, designed to support them in their curriculum planning, instruction, and assessment throughout the school year
- **Competencies decouple performance levels and grade levels**, asserting that the pathway from novice to expert is not necessarily based on time or age; this is unlike standards, which are typically organized by grade level and subject area
- **A competency's continuum describes the observable performance indicators tied to a specific, time-bound demonstration** of the skill components through a product or performance; the language of standards sometimes describes discrete performance indicators, and sometimes describes a target outcome to be reached by the end of the year
- **Competencies largely emphasize skill and dispositional development and do not specify content knowledge typically associated with grade level**

standards; standards often articulate important skills but with less specificity, and typically provide explicit grade-specific guidance on which content knowledge and concepts to address along the pre K-12 pathway, which competencies do not provide.

HOW DO THEY WORK TOGETHER?

Competencies and standards work together in two important ways:

1. Standards "signal" the skill components of focus (e.g., "Plan and carry out an investigation"); competencies elaborate on skill development by providing more detailed language for the path from novice to expert
2. Standards provide clear direction on the important content and concepts to be addressed throughout the pre K-12 pathway; the continua provide a reliable tool for locating and monitoring growth of learners' skills as they engage deeply with target content and concepts across disciplines

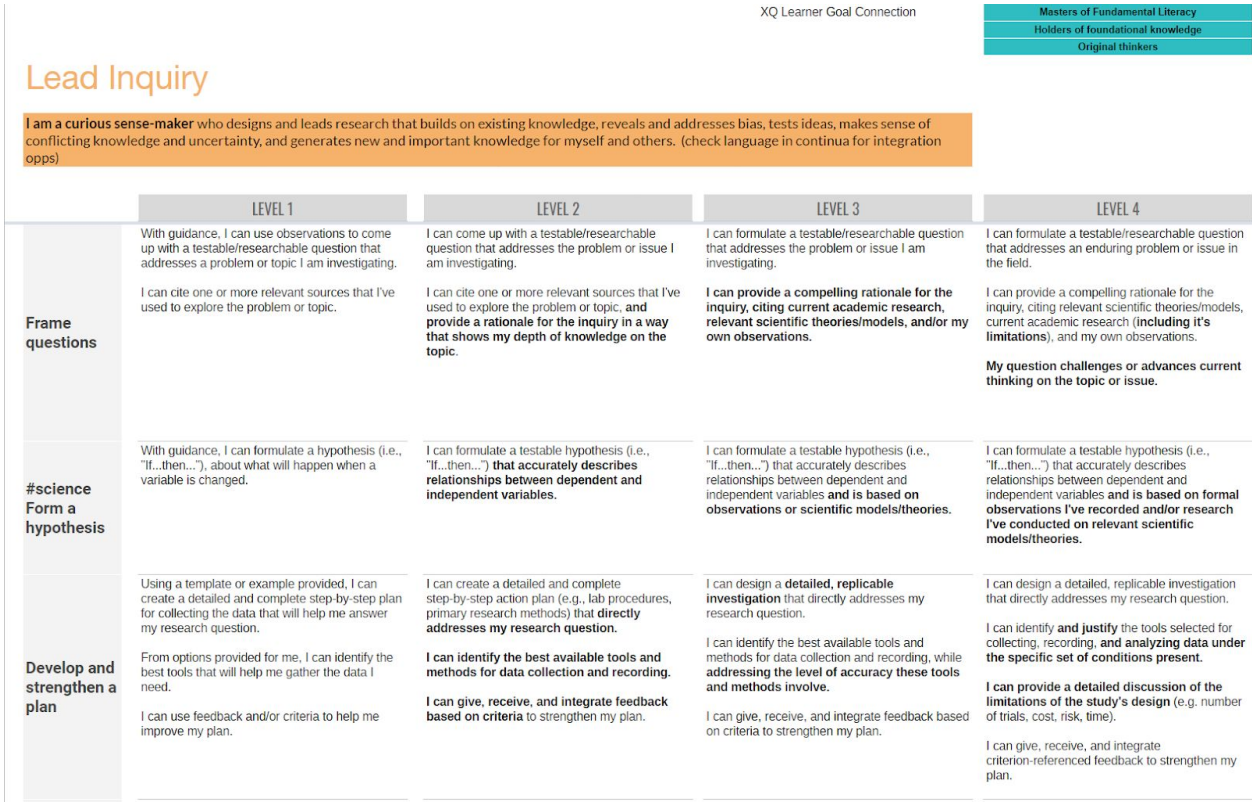
The example below illustrates the points above. Below is an excerpt of Tennessee Academic Standards for Science kindergarten, grade 2, grade 4, grade 6, grade 8, and Biology. The light grey text emphasizes content knowledge and concepts, which are expected to change by grade level. The bold text shows how the skill of scientific investigation is addressed in those standards.

Kindergarten	Grade 2	Grade 4	Grade 6	Grade 8	BIOLOGY
K.PS1.2 **Conduct investigations** to understand that matter can exist in different states (solid and liquid) and has properties that can be observed and tested.	2.PS4.1 **Plan and conduct investigations** to demonstrate the cause and effect relationship between vibrating materials (tuning forks, water, bells)	4.PS4.3 **Investigate** how lenses and digital devices like computers or cell phones use waves to enhance human senses.	6.PS3.4 **Conduct an investigation** to demonstrate the way that heat (thermal energy) moves among objects through radiation, conduction, or convection.	8.PS2.4 **Plan and conduct an investigation** to provide evidence that the change in an object's motion depends on the sum of the forces on the object and the	BIO2.LS2.1 **Plan and carry out an** ethology **investigation** of a simple organism. **Gather, analyze, and present data** in tabular and graphical formats. **Draw conclusions**

	and sound.			mass of the object.	based on data and communicate findings.

As seen above, the skill generally develops from simply conducting an investigation to planning or designing and conducting an investigation. While the scientific content is quite clear, how a student's skills as a scientific investigator evolve over time is less evident. An excerpt of *Lead Inquiry* continuum is shown below to demonstrate the value added by the competency's continuum in supporting skill development:

Competency Excerpt: Lead Inquiry Levels 1-4



XQ Learner Goal Connection

Masters of Fundamental Literacy
Holders of foundational knowledge
Original thinkers

Lead Inquiry

I am a curious sense-maker who designs and leads research that builds on existing knowledge, reveals and addresses bias, tests ideas, makes sense of conflicting knowledge and uncertainty, and generates new and important knowledge for myself and others. (check language in continua for integration opps)

	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
Frame questions	With guidance, I can use observations to come up with a testable/researchable question that addresses a problem or topic I am investigating. I can cite one or more relevant sources that I've used to explore the problem or topic.	I can come up with a testable/researchable question that addresses the problem or issue I am investigating. I can cite one or more relevant sources that I've used to explore the problem or topic, **and provide a rationale for the inquiry in a way that shows my depth of knowledge on the topic**.	I can formulate a testable/researchable question that addresses the problem or issue I am investigating. **I can provide a compelling rationale for the inquiry, citing current academic research, relevant scientific theories/models, and/or my own observations.**	I can formulate a testable/researchable question that addresses an enduring problem or issue in the field. I can provide a compelling rationale for the inquiry, citing relevant scientific theories/models, current academic research (**including it's limitations**), and my own observations. **My question challenges or advances current thinking on the topic or issue.**
#science Form a hypothesis	With guidance, I can formulate a hypothesis (i.e., "If...then..."), about what will happen when a variable is changed.	I can formulate a testable hypothesis (i.e., "If...then...") **that accurately describes relationships between dependent and independent variables.**	I can formulate a testable hypothesis (i.e., "If...then...") that accurately describes relationships between dependent and independent variables **and is based on observations or scientific models/theories.**	I can formulate a testable hypothesis (i.e., "If...then...") that accurately describes relationships between dependent and independent variables **and is based on formal observations I've recorded and/or research I've conducted on relevant scientific models/theories.**
Develop and strengthen a plan	Using a template or example provided, I can create a detailed and complete step-by-step plan for collecting the data that will help me answer my research question. From options provided for me, I can identify the best tools that will help me gather the data I need. I can use feedback and/or criteria to help me improve my plan.	I can create a detailed and complete step-by-step action plan (e.g., lab procedures, primary research methods) that **directly addresses my research question.** **I can identify the best available tools and methods for data collection and recording.** **I can give, receive, and integrate feedback based on criteria** to strengthen my plan.	I can design a **detailed, replicable investigation** that directly addresses my research question. I can identify the best available tools and methods for data collection and recording, while **addressing the level of accuracy these tools and methods involve.** I can give, receive, and integrate feedback based on criteria to strengthen my plan.	I can design a detailed, replicable investigation that directly addresses my research question. I can identify **and justify** the tools selected for collecting, recording, **and analyzing data under the specific set of conditions present.** **I can provide a detailed discussion of the limitations of the study's design** (e.g. number of trials, cost, risk, time). I can give, receive, and integrate criterion-referenced feedback to strengthen my plan.

In the continuum for *Lead Inquiry*, **the path from novice to expert is described in detail for each of the following six essential skills that relate to planning and conducting a scientific investigation**:

- Frame a research question
- Form a hypothesis
- Develop and strengthen a plan
- Collect and analyze data
- Share findings
- Follow writing conventions

The standard without the competency leaves teachers and students without a clear articulation of the novice-to-expert path of skill development. The competency without the standard leaves teachers and students without guidance as to which skills and content to focus on throughout the course or learning experience, and how to sequence them. Taken together, teachers and learners are equipped with essential tools to ensure learning experiences across the state are deliberately developing in learners the knowledge, skills, and characteristics reflected in Crosstown High's Vision and Values.

For more on the relationship and differences between competencies and standards, see this reDesign blog post: What IS the difference between competencies and standards?

PRACTITIONER GUIDANCE BY COMPETENCY

In this section, we provided specific background information and guidance on each of the twelve prototype competencies. Please note that all Crosstown High competency prototypes, including their continua, are available in the online workbook**.**

It is also important to note that these continua are to be used responsively with students, based on their different needs. For example, for a non-verbal learner, performance level indicators that describe students ability to “talk about” or “explain” their thinking, an accommodation should be made so that the non-verbal learner is able to “explain” her or his thinking through non-verbal communication, such as through gestures, written word, use of manipulatives, or other means. The continuum is an imperfect teaching and learning tool designed to help educators position learners as developing experts; it is intended to provide guidance, not to be restrictive. Educators are encouraged to use their professional discretion to make responsive and appropriate accommodations and modifications based on learners needs.

LEAD ONE'S LEARNING

I am a self-driven, self-directed inventor of my own learning path *who applies metacognitive, behavioral, and motivational skills to set goals, self-appraise my progress, take strategic action, and show grit in the face of challenges.*

ABOUT

This competency is based on a research-based framework for self-regulated learning that involves four key components: (1) setting goals and appraising tasks, (2) making a plan, (3) engaging in metacognitive monitoring of one's progress, and (4) taking strategic action in order to achieve one's goal.

In early levels on the continuum, students practice and apply these skills and strategies for a particular task. In higher levels on the continuum, the language shifts to "project;" this is simply used to signal greater complexity in the context in which learners are practicing and demonstrating *Learning Independently*.

POSSIBLE ASSESSMENT FORMATS

This might best be used in combination in order to create opportunities for students to evidence all skill components:

Project Plan
Project Journal
Reflective Summary
Conference + Artifact Review

Print this competency and continuum >> https://tinyurl.com/yde2k72h
View this competency and continuum online >> https://tinyurl.com/y9ucbuey

REASON QUANTITATIVELY

I am a data-based problem solver and mathematical thinker *who applies strategies to construct and defend mathematical solutions, models, and arguments..*

ABOUT

This competency encompasses three core quantitative skill components: analyzing data, representing data, and solving problems. Each of these can be practiced and demonstrated independently. Instructionally, this means you could focus on one particular strand at at time.

You'll notice that throughout the performance level descriptors, language purposefully embeds descriptions about learners' ability to choose and apply problem-solving strategies, also referred to as "mathematical habits of mind," that are used by experts. These math strategies, along with definitions and examples, are listed in Appendix 1.

You'll also notice that "mathematical practices" described in national standard sets, such as attending to precision and modeling real-world scenarios, are also embedded in the language of the performance level descriptors.

POSSIBLE ASSESSMENT FORMATS

Data Analysis
Data Visualization / Infographic
Mathematical Modeling
Mathematical Argumentation
Annotated Problem Set
Solution Presentation

Print this competency and continuum >> [https://tinyurl.com/ycoo958p]
View this competency and continuum online >> https://tinyurl.com/ybdknnyg

READ CRITICALLY

I am a critical reader *who engages with and critiques diverse forms of media (e.g., texts, films, advertising, music, the arts) and analyzes relationships between media, audience, messages, and power.*

ABOUT

Reading critically is really about reading the world. It extends beyond traditional printed text to encompass diverse media, such as films, advertisements, social media posts, music, and more. Students will learn, practice, and apply strategies for comprehending, analyzing, and critiquing texts.

We've used the term "text" for simplicity, but it is intended to represent any media form through which students' critical literacy will be demonstrated and assessed.

The phrase "stories/sources" is used in the continuum to signal that the indicator applies both to fiction and nonfiction texts or sources

POSSIBLE ASSESSMENT FORMATS

Conference
Reflective Summaries
Collaborative Discussion
Socratic Seminar
Open-ended Constructed Responses
Literary Analysis Essay
Expository Essay

Print this competency and continuum >> [https://tinyurl.com/ycxsg3xg]
View this competency and continuum online >> [https://tinyurl.com/yarqg3cd]

LEAD INQUIRY

I am a curious sense-maker *who designs and leads research that builds on existing knowledge, reveals and addresses bias, tests ideas, makes sense of conflicting knowledge and uncertainty, and generates new and important knowledge for myself and others.*

ABOUT

This competency is about conducting primary research. The skills are purposefully process-oriented, guiding learners through a process of framing a testable question based on observation, designing an investigation, carrying it out, collecting and analyzing data, and communicating results in a format consistent with the conventions from the field.

Note that the second skill component of the continuum, “Form a hypothesis,” is tagged for science only. It can be ignored for contexts that do not require or involve a formal hypothesis-setting process.

POSSIBLE ASSESSMENT FORMATS

Science Investigation
Experimental Design
Short-cycle Inquiry Project
Executive Summary
Research Design Proposal
Research Design
Lab Report
Journal Article
Industry Analysis Report
Science Fair Exhibit
Social Studies/History Investigation
Thesis
Dissertation

Print this competency and continuum >> [https://tinyurl.com/y8n8tn5b]
View this competency and continuum online >> https://tinyurl.com/ybc7clz2

DESIGN SOLUTIONS

I am a generative and creative thinker and designer *who uses a systematic design process, independently and with others, to reframe and reimagine complex or ambiguous problems or challenges from different perspectives and produce original and feasible solutions in a range of disciplinary or interdisciplinary contexts.*

ABOUT

This competency is about developing learners' ability to identify innovative design challenges and build feasible solutions. It guides learners through problem framing, research, ideation, idea validation, prototyping, and testing and iteration of concepts.

It can be applied in the context of a design task, as well as in the context of developing or using a model, such as in the sciences, but the performance level descriptors imply that the modeling task relates to a real-world issue or challenge.

Note that the "Presentation" dimension of the design standards is not included in the Design Solutions continuum; however, the competency *Express Oneself Boldly* would be an ideal fit for preparing for a presentation to an authentic audience.

POSSIBLE ASSESSMENT FORMATS

Engineering Design Task
Product Design Task
Build or Critique a Model
Community Problem-Solving

Print this competency and continuum >> [https://tinyurl.com/yay2pa6l]
View this competency and continuum online >>
https://tinyurl.com/ybc7clz2

EXPRESS ONESELF BOLDLY

I am a compelling writer, speaker, and creator *who clearly and effectively expresses my ideas using diverse formats and settings to inform, persuade, and connect with others.*

ABOUT

This competency has two main dimensions: expressing ideas in the context of collaborative discussions, and expressing ideas through the creation of formal products or performances through which students creatively and constructively express their ideas.

It is broad enough to be useful for narrative, informational, and argumentative writing as well as oral presentations and discussions.

Terms like “details and evidence” were used to encompass both the details you might use in writing a narrative (e.g., sensory language) and the evidence you might structure to support your argument.

If you find that you need to offer students more detailed guidance that is specific to the genre, consider adding a writer’s checklist to guide their work.

POSSIBLE ASSESSMENT FORMATS

Collaborative Discussion
Reflective Summary
Socratic Seminar
Conference
Argumentative Essay
Informational Essay
Narrative or short story
Speech
Debate
Presentation
Photo Essay
Infographic
Documentary
Poem

Print this competency and continuum >> [https://tinyurl.com/ya5ty6m2]
View this competency and continuum online >> https://tinyurl.com/ybc7clz2

DEVELOP SELF-KNOWLEDGE

I am a reflective builder of self-knowledge *who utilizes this knowledge to improve my life and the lives of others.*

ABOUT

This competency is about helping learners develop strong, dynamic identities that help them tap into communities, networks, and avenues to activism, which overlaps with the skills found in *Engage as a Citizen*. Ir provides structure for learners to engage in reflection and evaluation of how their identity impacts and is impacted by others. It also has aspects of emotional self-regulation, specifically during conflict resolution.

Finally, we strongly encourage the use of assessments that are primarily aimed at creating structured opportunities for student self-assessment, self-reflection, and kind, specific, and helpful feedback, such as through conferencing. We strongly discourage using grades in a way that might disincentivize honest self-reflection and student-led identification of not-yet-met performance level descriptors for *Develop Self-Knowledge*.

POSSIBLE ASSESSMENT FORMATS

Journal
Identity Board
Reflections
Collaborative Discussion
Presentation
Portfolio

Print this competency and continuum >> [https://tinyurl.com/yb6fx66v]
View this competency and continuum online >> https://tinyurl.com/ybc7clz2

COLLABORATE ON TEAMS

I am a self-aware team member, essential co-creator, and talent seeker *who understands my strengths and models responsiveness, active and open listening, and positive conflict resolution and communication; upholds my roles and responsibilities; and honors other's stengths and voice and effectively mobilizes the talents of my team.*

ABOUT

This competency is grounded in industry analysis and job forecasting studies that have identified the most valued skills in the fastest growing industries, one of which is “Leadership skills.” This competency is designed to ensure that students have a formal, structured opportunity to learn and practice working with and leading a team of others as they work collectively toward a shared goal or outcome. This competency not only touches on planning and organization, but interpersonal skills such as conflict management and communication.

POSSIBLE ASSESSMENT FORMATS

Team Plan
Team Project Reflective Summary
Project Portfolio
Conference + Artifact Review

Print this competency and continuum >> [https://tinyurl.com/y97eayt5]
View this competency and continuum online >> https://tinyurl.com/ybc7clz2

SUSTAIN WELLNESS

I am intentional champion of my own wellness *who builds and sustains a personal practice, centered on regard for my well-being, happiness, and physical health, that is necessary for me to live a secure, fulfilling, and enjoyable life in accordance with my life plans.*

ABOUT

This competency is distinctive because it addresses very personal issues physical, emotional, and social health.

This competency illuminates the ways in which the competency set considers the whole child, not strictly a child's academic development. With this in mind, it is particularly important that a safe, inclusive, and supportive environment, as well as a trusting teacher-student relationship, is in place before learners engage with this competency in a school setting.

As with *Develop Self-Knowledge*, we strongly encourage the use of assessments that are primarily aimed at creating structured opportunities for student self-assessment, self-reflection, and kind, specific, and helpful feedback, such as through conferencing. We strongly discourage using grades in a way that might disincentivize honest self-reflection and student-led identification of not-yet-met performance level descriptors for *Sustain Wellness*.

You'll note that the performance level descriptors (PLDs) provide specific, select guidance across dimensions of health, and then guide learners to engage in individualized goal-setting related to exercise, sleep, nutrition, or social engagement, and in later levels, financial independence. This allows for more flexibility and personalization in learners' pathway to their own sense of building and sustaining wellness, while still attending to what is reliably known in the health sciences about maintaining wellness.

POSSIBLE ASSESSMENT FORMATS

This might best be used in combination in order to create opportunities for students to evidence all skill components:

Self-assessment
Wellness Plan
Reflective Summary
Conference

Print this competency and continuum >> [https://tinyurl.com/yahllmsk]
View this competency and continuum online >> https://tinyurl.com/ybc7clz2

BUILD COMMUNITY

I am a proactive and purposeful community member *who uses develops community relationships, welcomes diversity, and furthers social justice to support the well-being of myself and members of my local, national, and global community.*

ABOUT

This competency is grounded in economic mobility studies that have identified social capital - defined as the strength of one's social networks and community involvement - as positively correlated with economic mobility.

Students practice and apply the skills and strategies associated with initiating purposeful connections with others, and nurturing and sustaining relationships. The competency also provides opportunities for learners to purposefully and respectfully engage the perspectives of others, and learn about the value of diversity in community settings.

POSSIBLE ASSESSMENT FORMATS

Networking Plan
Stakeholder Analysis
Reflective Summary
Journal
Conference
Portfolio

Print this competency and continuum >> [https://tinyurl.com/yaf2gny8]
View this competency and continuum online >> https://tinyurl.com/ybc7clz2

LEARN FROM THE PAST

***I am a holder of foundational historical and cultural knowledge** who identifies lessons from the past and applies these understandings to expand my knowledge of social justice issues, develop a personal stance, and organize collaborative action.*

ABOUT

This competency is about bringing a tightly focused lens of social justice to examinations of the past, and using them to understand the present and inspire community action. Learners will engage deeply and personally with social justice issues. This competency works closely with other competencies that engage students in self-reflection about their identities, such as *Develop Self-Knowledge*, and in community action, such a *Build Community* and *Engage as a Citizen.*

POSSIBLE ASSESSMENT FORMATS

Collaborative Discussion
Reflective Summary
Socratic Seminar
Argumentative Essay
Informational Essay
Speech
Debate
Presentation
Photo Essay
Infographic
Documentary
Community Action Project

Print this competency and continuum >> [https://tinyurl.com/y6uwhvwn]
View this competency and continuum online >> https://tinyurl.com/ybc7clz2

ENGAGE AS A CITIZEN

***I am a fully engaged citizen** who works to create a more just and functional democracy to improve my community and my country for myself and others.*

ABOUT

This competency provides opportunities for learners to build their civic and historical knowledge while investigating and working to address a specific, observable issue within their community. Put another way, it ensure that students' engagement with civic and historical content knowledge is directly tied to an authentic and relevant problem or issue that impacts their community.

This competency is not a replacement for formal study of history or civics; it works in conjunction with academic standards related to these domains and provides an authentic context in which experiential learning can take place.

The skill component, *Examine enduring problems*, requires that students become active observers of their community to identify challenges or issues that they could help influence. This identified problem or issue then becomes the context for the application of the remaining skill components: building civic knowledge (about the issue), and taking action (to address the issue). The implication here is that the problem identification is very important, and you will want to make sure students have identified a problem that they are able to take action on in some way, thus creating an opportunity for students to practice and show evidence of the other skill components.
evidence of the other skill components.

POSSIBLE ASSESSMENT FORMATS

Action Plan
Business Plan
Nonprofit Proposal
Photo Essay
Event Organizing
Documentary or film
Podcast
Social Media Campaign
Reflective Summary

Print this competency and continuum >> [https://tinyurl.com/yauwg7sg]
View this competency and continuum online >> https://tinyurl.com/ybc7clz2

PROFILE MATRIX

	XQ LEARNER GOALS				
	Masters of Fundamental Literacy	Holders of foundational knowledge	Original thinkers	Generous collaborators	Learners for life
Lead One's Learning					
Reason Quantitatively					
Read Critically					
Lead Inquiry					
Design solutions					
Express oneself boldly					
Develop Self-Knowledge					
Collaborate on Teams					
Sustain Wellness					
Build Community					
Learn from the Past					
Engage as a Citizen					

APPENDIX 1: PROBLEM-SOLVING STRATEGIES DEFINED

REASONING QUANTITATIVELY | PROBLEM-SOLVING STRATEGIES

STUDENT GUIDE

Mathematical Habits of Mind (MHoM) are learning strategies that support and enable serious questioning, good problem solving, and critical analysis. Each of the following behaviors can be applied beyond the world of mathematics. Sound habits of mind encourage and support your success in the world.

Gather and Organize Data *Draw out the information you need, noting both what you know and what you need to find out*	• Identify key important information • Rephrase the problem	• Identify formulas and resources • Identify distractors
Visualizing *Create a picture in your mind that helps you see the parts of the problem and how they are related*	• Imagine the result • Model the situation	• "See" a proof • Think proportionally
Pattern Detection *Look for regularity, symmetry, and repetition in problems to simplify and/or solve it*	• Build and see patterns • Recognize a similar process • Count without counting	• Look for relationships • Make connections
Tinkering *Take it apart, look at the parts, and put it back together to understand it better*	• Reverse the direction • Work backwards	• Analyze continuous behaviors
Conjecture *Use the new information you have, and your own background knowledge, to draw a conclusion about what it means*	• Generalize to the nth value • Generalize to higher dimensions • Make general rules from specific cases	• Make inferences (draw logical conclusions) • Use known information to find unknown information • Extend to general figure

Experimenting *Make a plan that involves trying different approaches using tools and strategies you've used successfully before, and record your results to learn something new or solve the problem*	• Simplify the problem • Guess and test • Try numerical cases • Consider special cases • Work backwards • Find and repeat a process	• Solve a simpler, similar problem • Identify key characteristics • Create or act out physical representation
Inventing *Apply and evaluate different methods to create a novel approach or solution, and articulate when and how the approach might be useful in the future or different context*	• Be systematic • Consider the complement	• Reason about the calculations

APPENDIX 2: UNPACKING A COMPETENCY| SAMPLE TEACHER TOOL

UNPACKING A COMPETENCY | SAMPLE TEACHER TOOL

Unpacking a competency means identifying the key skills and knowledge that must be explicitly taught/modeled, with opportunities for "gradual release" (guided practice, independent practice, transfer to new contexts). Use the performance level descriptors (PLDs) on the continuum as your primary guide for unpacking a competency.

STEP 1: DECONSTRUCT IT

COMPETENCY:	[Add competency here]
Circle the "typical" start and goal range for your students. Note some "look fors" that you see at each performance level.	LEVEL: 1 2 3 4

	KEY SKILLS *Which specific skills will learners need to develop in order to meet the target level?*	KEY KNOWLEDGE *What background knowledge will learners need in order to meet the target level?*	TAG
#1 [Add skill component here]	•	•	
#2 [Add skill component here]	•	•	
#3 [Add skill component here]	•	•	
#4 [Add skill component here]	•	•	
#5 [Add skill component here]	•	•	

#6 [Add skill/dimension here]	•	•	

STEP 2: TAG IT

Scan back over the skills/dimensions you've deconstructed in Step 1. Now reflect on your students and what you know about their areas of strength and growth, and how this compares to your target performance level. In the column on the far right, use the following key to identify your target strategy for the skill:

MM (Metacognitive Modeling)	This is a new skill for some/many students. I will need to model this skill through a "think aloud" and guided anchor chart construction so that I can make the underlying thinking processes and strategies visible to learners.
SC (Scaffolding)	This is an emerging skill for some/many students. I will need to create and use supportive structures to help students practice and apply this skill (templates, sentence starters, guidance resources).
IN (Independent)	This is a well-developed skill for some/many students. Based on data I've gathered (e.g., conferencing, student work analysis, assessments), I can expect students to demonstrate this skill independently without requiring modeling or scaffolding.
GI (Give it)	I will structure the task so students have a "pass" on this skill; I will need to teach it later, but for now I will "give it" to students by doing it for them or having them use the worked example we've done together as a class.

APPENDIX 3: PERFORMANCE ASSESSMENT DESIGN TEMPLATE AND EXAMPLE

PERFORMANCE ASSESSMENT DESIGN | SAMPLE TEMPLATE AND CONTINUUM-DERIVED RUBRIC

This sample template can be used to guide instructional teams in developing performance-based assessments through which learners will demonstrate target competencies. Please note the “rubric” that follows the template, which pulls the skill components and performance level descriptors from the continuum based on the appropriate performance band for the student group. This process of “pulling” excerpts from the continuum to build a transparent, student-facing rubric for the performance assessment is strongly encouraged.

Example Quality Performance Assessment Student Overview Sheet	Grade band: 5-7 Subject Area: Math

ESSENTIAL QUESTION

How can I showcase my classmates’ career plans?

TARGET COMPETENCY	TARGET CONTENT STANDARD/S
Reasoning Quantitatively Investigating Through Inquiry	Data Analysis and Statistics 6.DS.5 Describe numerical data sets in relation to their real-world context.

TASK DESCRIPTION:

A community event is coming up! You have been asked to create an **infographic** that showcases something special about the plans or goals your classmates have for their future careers. You can choose any question that relates to your classmates and their career plans (such as, What are the **different future career plans** that my classmates have? How many classmates want to do jobs that involve improving the lives of others?).

FINAL PRODUCT:

Infographic

PROCESS GUIDE:

STEPPING STONES	DESCRIPTION	TIME FRAME
#1	**Explore Infographics** Explore several example infographics and come up with questions you have about how to create one.	
#2	**Create a research plan** Create a research plan that shows the steps you will follow to conduct your research	
#3	**Draft the survey instruments** Decide on the question/s you will ask, and how you will collect your data.	
#4	**Gather the data** Gather the data from your classmates about their career goals.	
#5	**Analyze the data** Analyze the data, then create a short memo that explains what you learned from the data.	
#6	**Outline the infographic** Create an outline of the key information you will include in the infographic.	
#7	**Draft the infographic** Create a draft of the infographic. Get feedback.	
#8	**Finalize and share** Finalize your infographic, then share it for your community event!	
#9	**Reflect** Think about what you've learned, how you learned it, and how you can use it in the future.	

POSSIBLE RUBRIC #1: REASON QUANTITATIVELY

	LEVEL 1	LEVEL 2	LEVEL 3
Analyzing and interpreting data	I can identify patterns and outliers in one or more sources of data. With guidance, I can use reasoning, math skills, and contextual information to draw inferences about the data and explain phenomena.	**I can analyze data sets involving linear or nonlinear relationships, and I can explain relationships between variables using details about the data**, including observed patterns or outliers. I can use reasoning, math skills, or contextual information to draw inferences about the data to support an evidence-based claim. **When applicable, I can compare multiple data sets and determine similarities and differences between and among the data**.	**I can use systematic methods** to identify and analyze patterns and outliers in one or more data sets. I can use reasoning, math skills, **background knowledge**, or contextual information to **draw conclusions about the data, question others' conclusions drawn using the data, and/or make valid and reliable scientific claims**. **I can determine the significance of the data as it relates to a hypothesis, working explanation, or relevant theories or models**.
Representing data	With guidance, I can represent data in a table or graph (e.g., bar graphs, pictographs, pie charts) that is correctly titled and labeled. I can explain how I have organized the data and what it shows.	I can accurately organize and display an **original** data set **using tables, charts, and/or graphs in print and electronic form, in order to represent either linear or nonlinear relationships.** **I can apply descriptive statistics** (e.g., including mean, median, mode, and variability) to represent and discuss my data, using digital tools when useful.	I can accurately organize and display original data, **using the most appropriate organizing tools and visual displays for the type of data generated**. **I can apply concepts of statistics and probability** (function fits to data, slope, intercept, and correlation coefficient for linear fits) **to analyze and characterize data from an investigation**. **My representation of data is well-suited to a specific audience and purpose.**

POSSIBLE RUBRIC #2: INVESTIGATING THROUGH INQUIRY

	LEVEL 2	LEVEL 3	LEVEL 4
Frame a research question	With guidance, I can use observations to come up with a testable/researchable question that addresses a problem or topic I am investigating. I can cite one or more relevant sources that I've used to explore the problem or topic.	I can come up with a testable/researchable question that addresses the problem or issue I am investigating. I can cite one or more relevant sources that I've used to explore the problem or topic, **and provide a rationale for the inquiry in a way that shows my depth of knowledge on the topic**.	I can formulate a testable/researchable question that addresses the problem or issue I am investigating. **I can provide a compelling rationale for the inquiry, citing current academic research, relevant scientific theories/models, and/or my own observations.**
Develop and strengthen a plan	Using a template or example provided, I can create a detailed and complete step-by-step plan for collecting the data that will help me answer my research question. From options provided for me, I can identify the best tools that will help me gather the data I need. I can use feedback and/or criteria to help me improve my plan.	I can create a detailed and complete step-by-step action plan (e.g., lab procedures, primary research methods) that **directly addresses my research question.** **I can identify the best available tools and methods for data collection and recording.** **I can give, receive, and integrate feedback based on criteria** to strengthen my plan.	I can design a **detailed, replicable investigation** that directly addresses my research question. I can identify the best available tools and methods for data collection and recording, while **addressing the level of accuracy these tools and methods involve.** I can give, receive, and integrate feedback based on criteria to strengthen my plan.

Collect and analyze data	With guidance, I can create and follow a data collection plan. I can organize and represent my data using graphical displays (e.g., maps, charts, graphs, tables). I can identify patterns and outliers in my data set, and explain what they mean in the context of my research question.	I can implement my data collection plan, **while avoiding significant data collection errors (e.g., missed steps, insufficient samples, inaccurate recording).** I can organize and represent my data using graphical displays, **relevant digital tools, and mathematical analysis (e.g., mean, median, mode, variability).** **I can use tools, technologies, or models to identify and explain important relationships among variables/factors in my data set.**	I can implement my data collection plan **with precision**, avoiding data collection errors, gathering data from multiple diverse sources, **and documenting any significant adjustments made to my methods.** I can organize and represent my data sets using graphical displays, **statistical analysis tools and functions (e.g., slope, intercept, correlation coefficient for linear fits), and other relevant technologies.** I can use tools, technologies, or models to identify and explain important relationships among variables/factors, **and to make sense of disconfirming data**.

APPENDIX 4: SAMPLE PCBL UNIT PLANNING TEMPLATE

SAMPLE PERSONALIZED, COMPETENCY-BASED UNIT PLANNING TEMPLATE

The template below is a sample competency-based unit planning template that is organized into three stages: Desired Results, Evidence, and Learning Plan. It incorporates three key conceptual tools introduced during the 2017-18 Tier 3 supports; namely, the new competency prototypes (Stage 1); the performance assessment design methodology that provides rich scaffolding and makes transparent to learners the underlying skills and processes required by the performance assessment, as modeled in Appendix 3 (Stage 2); and finally, the inquiry-based Learning Cycle that provides a visual representation of the cognitive and metacognitive processes of learning (Stage 3).

Grade/Subject: **Strand:**

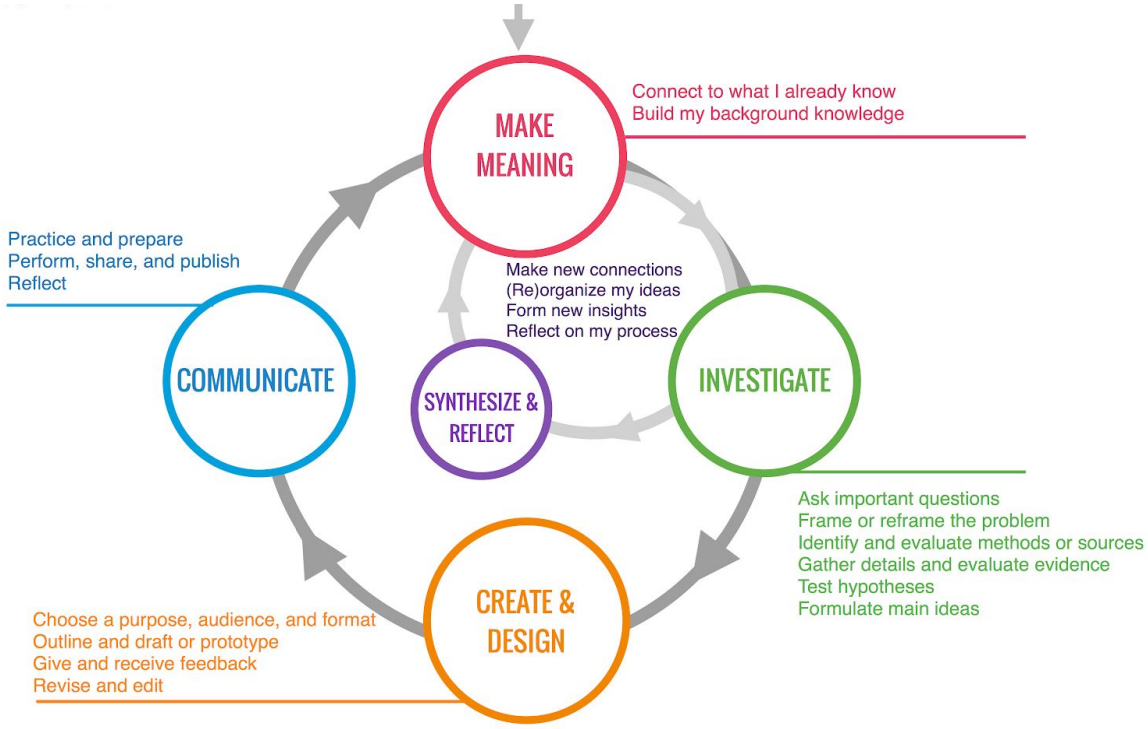
Stage 1: Desired Results	
Target Competency/Skills	**Performance Task**
• •	
Essential Question	**Target Standards**

Stage 2: Evidence	
Formative Tasks	**Other Formal Checks for Understanding**
1. [Add and hyperlink here]	[Add and hyperlink here]
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Stage 3: Learning Plan			
STAGE	**DRIVING QUESTIONS**	**KEY LEARNING RESOURCES**	**KEY LEARNING ACTIVITIES**
MAKE MEANING			
	Target skills/strategies to model: • •		
INVESTIGATE			
	Target skills/strategies to model: • • •		
CREATE			
	Target skills/strategies to model: • • •		
SHARE			
	Target skills/strategies to model: • •		

APPENDIX 5: INQUIRY-BASED LEARNING CYCLE

The Inquiry-based Learning Cycle, grounded in research from the learning sciences, is a heuristic tool for making transparent to learners the cognitive and metacognitive processes involved in designing learning experiences that develop learners' competence, curiosity, and agency. Bridging curriculum design and facilitation, the inner circle represents the ongoing, cyclical learning that happens daily (e.g., the "lesson" level), and is nested within the outer circle that represents learning that culminates in the creation and sharing of new knowledge, involving products and performances, which takes place at the "unit" level of study.



APPENDIX 6: COMPETENCY-TO-TASK CROSSWALK

COMPETENCY-TO-TASK CROSSWALK

Below you will find a list of possible performance-based assessments (also called "performance tasks") that may be selected as the medium for students to practice and demonstrate target competencies. This is not a complete list, and it is important to note that the structure and directions for the performance task need to ensure students *have the opportunity* to show evidence of skill components within a target competency.

OPL PROTOTYPE COMPETENCIES	ALIGNED PERFORMANCE ASSESSMENTS
LEAD ONE'S LEARNING	• Project Plan • Project Journal • Reflective Summary • Conference + Artifact Review
REASON QUANTITATIVELY	• Data Analysis • Data Visualization / Infographic • Mathematical Modeling • Mathematical Argumentation • Annotated Problem Set • Solution Presentation
READ CRITICALLY	• Conference • Reflective Summaries • Collaborative Discussion • Socratic Seminar • Open-ended Constructed Responses • Literary Analysis Essay • Expository Essay
LEAD INQUIRY	• Science Investigation • Experimental Design • Short-cycle Inquiry Project • Executive Summary • Research Design Proposal • Research Design • Lab Report • Journal Article

	• Industry Analysis Report • Science Fair Exhibit • Social Studies/History Investigation • Thesis • Dissertation
DESIGN SOLUTIONS	• Engineering Design Task • Product Design Task • Build or Critique a Model • Community Problem-Solving
EXPRESS ONESELF BOLDLY	• Collaborative Discussion • Reflective Summary • Socratic Seminar • Conference • Argumentative Essay • Informational Essay • Narrative or short story • Speech • Debate • Presentation • Photo Essay • Infographic • Documentary • Poem
DEVELOP SELF-AWARENESS	• Journal • Identity Board • Reflections • Collaborative Discussion • Presentation • Portfolio
COLLABORATE ON TEAMS	• Team Plan Team Project Reflective Summary Project Portfolio Conference + Artifact Review
SUSTAIN WELLNESS	• Self-assessment • Wellness Plan • Reflective Summary • Conference

BUILD COMMUNITY	• Networking Plan Stakeholder Analysis Reflective Summary • Journal • Conference • Portfolio
LEARN FROM THE PAST	• Collaborative Discussion • Reflective Summary • Socratic Seminar • Argumentative Essay • Informational Essay • Speech • Debate • Presentation • Photo Essay • Infographic • Documentary • Community Action Project
ENGAGE AS A CITIZEN	• Action Plan • Business Plan • Nonprofit Proposal • Photo Essay Event Organizing • Documentary or film • Podcast • Social Media Campaign • Reflective Summary

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