

INQUIRY INTO THE GLOBAL GOALS

Created by Elizabeth O. Crawford, Ph.D.



ASSIGNMENT OVERVIEW

The North Carolina Professional Teaching Standards (NCPTS) detail the requisite knowledge, skills, and dispositions of teachers in the 21st century. As such, they guide teacher preparation, including the planned learning experiences and assignments in this methods course.

In LIC 501, students will co-design an integrated curriculum unit for elementary learners aligned with academic content standards and the UN Sustainable Development Goals (SDGs). Adopted by all UN Member States in 2015, the SDGs outline 17 goals to ensure a sustainable future for all. The interconnected nature of the SDGs, from eliminating hunger and poverty to promoting health and clean energy, reflect the natural linkages between the core content areas of English Language Arts, mathematics, science, and social studies. Students learn about and take action on the SDGs in classrooms throughout the world, thereby empowering children as agents of change in their local communities and beyond.

This assignment serves to build students' content knowledge and information literacy skills by (a) investigating a standards-aligned issue of local and global significance; (b) curating diverse trustworthy, relevant sources of information relative to the curricular focus; and (c) writing a research brief outlining critical content a teacher should know prior to instructional planning.

LEARNING OBJECTIVES

Students will be able:

- Align academic content standards with the United Nations' Sustainable Development Goals.
- Formulate researchable questions relative to a complex global issue that spans cultures and countries.
- Locate and organize relevant sources reflective of diverse contexts and perspectives using a digital curation tool.
- Synthesize information gathered from multiple resources by writing a research brief for teachers.

PLANNING FOR INSTRUCTION

Developing Knowledge of Content and Standards

Throughout this course, students will learn how to integrate issues of local and global relevance in the elementary curriculum. By addressing the SDGs in planned curriculum and instruction, teachers can meet the call for a “new vision of teaching” as described in the NCPTS, including by:

- *making the content they teach engaging, relevant, and meaningful to students’ lives* (p. 2);
- *helping their students understand the relationship between the North Carolina Standard Course of Study and 21st century content which includes global awareness; financial, economic, business and entrepreneurial literacy; civic literacy; and health awareness* (p. 2); and
- *promoting global awareness and its relevance to the subjects they teach* (p. 4).

Prior to instructional planning, teachers must develop **content knowledge** and understand **the intention of the state-adopted academic content standards**. NCPTS Standard 3 Teachers Know the Content They Teach underscores the importance of teachers investigating the grade-level and subject-specific content standards and making connections across disciplines.

Specifically, Standard 3 calls for teachers to:

- *know subject beyond the content they teach; and*
- *direct students’ curiosity into an interest in learning* (p 5).

Topic Selection

Knowledge of the content standards and how they relate afford the design of integrated units of study that allow children to make local and global connections, inviting deep engagement. Boix-Mansilla and Jackson (2011, p. 56) encourage teachers to reflect upon the following questions when choosing a curricular focus:



How does this topic connect to the reality of my students’ lives and interests? Am I passionate about the topic myself? If so, why? Are there better ways to frame this topic to make it truly engaging for my students?

The following teacher preparation and higher education standards will be addressed in this assignment:

Council for the Accreditation of Educator Preparation (CAEP) K-6 Elementary Teacher Preparation Standards

Standard 2 Understanding and Applying Content and Curricular Knowledge for Teaching

2.a - Candidates demonstrate and apply understandings of the elements of literacy critical for purposeful oral, print, and digital communication.

2.d - Candidates demonstrate understandings, capabilities, and practices associated with the central concepts and tools in Civics, Economics, Geography, and History, within a framework of informed inquiry.

North Carolina Professional Teaching Standards

Standard 3 Teachers Know the Content They Teach

3a. Teachers align their instruction with the North Carolina Standard Course of Study.

3b. Teachers know the content appropriate to their teaching specialty.

3c. Teachers recognize the interconnectedness of content areas/disciplines.

3d. Teachers make instruction relevant to students.

Association of College and Research Libraries (ACRL) Framework for Information Literacy

- Research as Inquiry
- Searching as Strategic Exploration

PLANNING FOR INSTRUCTION

Aligning Instruction with the SDGs

After becoming familiar with their assigned field placement grade-level content standards and their learners, students will determine how they align naturally with the SDGs and their targets in order to design an integrated unit plan. For example, in the 1st grade, students learn about resource use and how humans protect and harm the environment. This focus naturally affords the integration of one or more SDGs as shown in the table below:

North Carolina Content Standards	Potential Sustainable Development Goals
Social Studies 1.G.2.2 Explain how people use <u>natural resources</u> in the <u>community</u> .	SDG 12 Responsible Consumption and Production – <i>Ensure sustainable consumption and production patterns.</i>
Science 1.L.1.3 Summarize ways humans <u>protect</u> <u>their environment</u> and/or <u>improve conditions</u> for the growth of plants and animals that live there (ex. Reuse or recycle products to prevent littering)	SDG 14. Life below Water – <i>Conserve and sustainably use the oceans, seas and marine resources for sustainable development</i>
	SDG 15 Life on Land – <i>Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</i>
	SDG 17 Partnerships for the Goals – <i>Strengthen the means of implementation and revitalize the global partnership for sustainable development.</i>

With this knowledge of content standards and his or her students, a teacher can determine how to connect these concepts to issues of significance to children. For example, using the above standards, one could explore with students the following: *consumerism* (e.g., being a responsible consumer by not wasting resources); *ocean pollution* (e.g., caused by littering) and *protection* (e.g., beach clean-ups); *animal habitat destruction and protection* (e.g., sea turtle habitat conservation); *sustainable food production* (e.g., school and community gardens), and more.

Once an initial broad focus (e.g., content standards, sample topics, and possible connections to the SDGs) has been determined, students will initiate **inquiry-based research** by identifying keywords (concepts and related topics), research questions, and possible sources of information in order to develop a depth of content understanding prior to curriculum planning. In this course, we will use Kath Murdoch's Inquiry Cycle to guide our research process.

Before initiating their research, students will "tune in" to their thinking by reflecting on what they think they know and what they want to learn about their focus.



Resources for Aligning Instruction with the SDGs include:



The Global Goals for Sustainable Development

<https://www.globalgoals.org/>



Participate Unit Planning Game

<https://explore.participate.com/unit-planning-game>



The World's Largest Lesson

<http://worldslargestlesson.globalgoals.org>



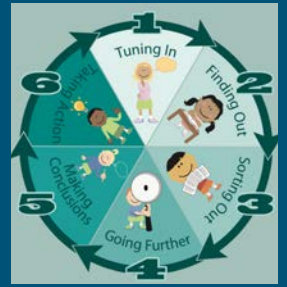
UNESCO Education for Sustainable Development: Learning Objectives

<https://unesdoc.unesco.org/ark:/48223/pf0000247444>

STANDARDS-ALIGNED CURRICULAR FOCUS (TOPIC, ISSUE, OR THEME)

TUNING IN:

- WHAT DO I KNOW ABOUT THIS TOPIC?
- HOW DO I KNOW?
- WHAT AM I INTERESTED IN LEARNING? WHAT AM I WONDERING?
- WHAT AM I FEELING?



INQUIRY PLANNING TEMPLATE

FINDING OUT:

DECONSTRUCT THE ACADEMIC STANDARDS AND SDGS TO IDENTIFY CONCEPTS AND TOPICS TO FOCUS YOUR RESEARCH USING **KEYWORDS**.

ACADEMIC STANDARDS

TARGETED SDGS

KEYWORD

KEYWORD

KEYWORD

KEYWORD

KEYWORD

KEYWORD

USING THESE **KEYWORDS**, WRITE AN OVERARCHING **COMPELLING QUESTION** AND ADDITIONAL **SUPPORTING QUESTIONS** TO FOCUS YOUR RESEARCH.

COMPELLING QUESTION

SUPPORTING QUESTIONS

WHERE MIGHT I FIND **RELIABLE INFORMATION**?

SCIENTISTS AND/OR OTHER EXPERTS

GOVERNMENT AGENCIES

NON-PROFIT ORGANIZATIONS

DATABASES AND/OR NEWS MEDIA



INQUIRY PLANNING TEMPLATE

RESEARCH TIPS

Developing a Search Strategy

After you have generated research questions and identified keywords, you will use these as you begin searching library and other online databases. You may also need to identify synonyms and other words related to your topic to locate appropriate sources of information. Keep in mind that searching is a **strategic exploration** and is often nonlinear and iterative. The Association of College and Research Libraries (ACRL) *Framework for Information Literacy for Higher Education* encourages one to use mental flexibility, creativity, and persistence when engaged in the process of searching:

The act of searching often begins with a question that directs the act of finding needed information. Encompassing inquiry, discovery, and serendipity, searching identifies both possible relevant sources as well as the means to access those sources. Experts realize that information searching is a contextualized, complex experience that affects, and is affected by, the cognitive, affective, and social dimensions of the searcher. Novice learners may search a limited set of resources, while experts may search more broadly and deeply to determine the most appropriate information within the project scope. Likewise, novice learners tend to use few search strategies, while experts select from various search strategies, depending on the sources, scope, and context of the information need.

Sourcing

In order to locate relevant, trustworthy information, please keep the following recommendations in mind:

- Seek a variety of sources reflective of diverse contexts and perspectives (including cultures and countries).
- Question and assess the validity and accuracy of information.
- Organize information in meaningful ways (e.g., by research question, topic, or other systematic scheme).

As you begin your search, **organize and save helpful sources using a digital curation** (e.g., Padlet; Diigo; Pinterest). You will later cite these in your research brief.

Information Literacy

The set of abilities requiring individuals to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.” To be information literate, then, one needs skills not only in research but in critical thinking (Source: American Libraries Association, 2019).

Compelling Question

Compelling questions used to frame an inquiry should foster curiosity, provoke debate, and require students to draw upon multiple disciplines. In other words, they are not one-right-answer, convergent questions; they are divergent and often philosophical in nature (Source: Grant, 2013).

Keywords

The most important words related to a subject, which you type into a search engine to find the information you want (Source: Common Sense Education, 2017).

Sources:

American Libraries Association. (2019). Information literacy. Retrieved from <https://literacy.ala.org/information-literacy/>

Common Sense Education. (2017). The key to keywords. Retrieved from <https://www.common sense.org/education/digital-citizenship/curriculum>

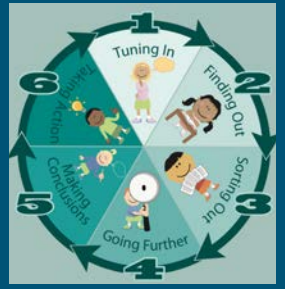
Grant, S.G. (2013). From inquiry arc to instructional practice: The potential of the C3 Framework. *Social Education* 77(6), pp 322-326, 351. Retrieved from <http://www.socialstudies.org/system/files/publications/se/7706/7706322.pdf>



Teachers have long used questions as part of their pedagogical repertoire. But there is a big difference between using questions to check for student understanding and using questions to frame a teaching and learning inquiry. Good questions can be difficult to create, but they can also help teachers and their students focus their inquiries and produce powerful learning outcomes (Grant, 2013, p. 325).

SORTING OUT:

- WHAT HAVE I LEARNED AT THE BEGINNING OF MY INQUIRY?
- WHAT QUESTIONS HAVE I BEEN ABLE TO ANSWER?
- WAS THE INFORMATION VALIDATED BY MULTIPLE SOURCES?
- WHAT NEW QUESTIONS DO I NOW HAVE?
- HOW AM I FEELING AT THIS STAGE OF THE INQUIRY? HAVE MY FEELINGS CHANGED? WHY OR WHY NOT?



A large, empty rectangular box with a dark blue border, intended for students to write their responses to the inquiry questions.

INQUIRY PLANNING TEMPLATE

ORGANIZING AND SYNTHESIZING INFORMATION

Organizing Ideas

While using both divergent and convergent thinking when searching, you may adjust your research questions as you discover new information. Now it is time to organize newly gleaned ideas in preparation for communicating your findings, the research brief outlining content a teacher should know prior to planning instruction.

There are many methods one may use for organizing ideas. For example, you may find it helpful to record notes according to research question, such as:

RESEARCH QUESTION

KEY IDEA

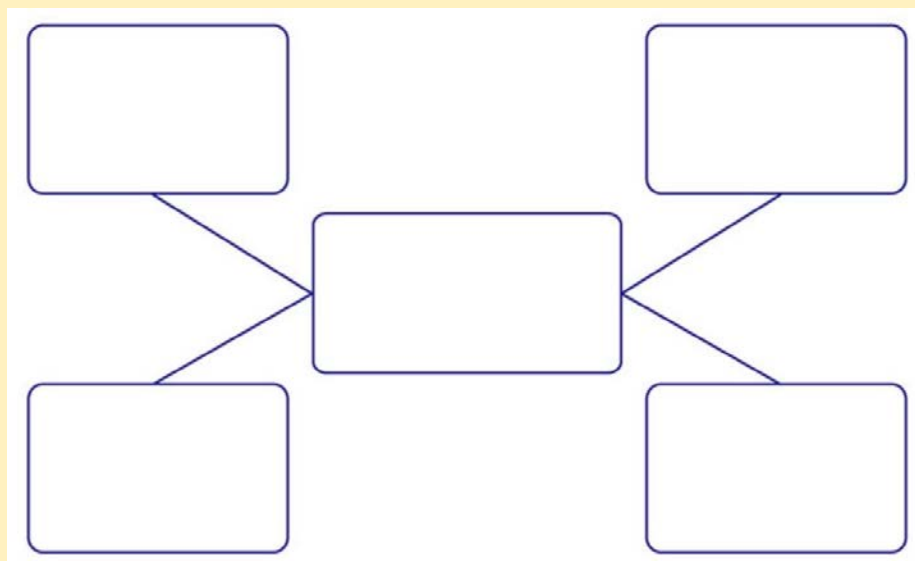
KEY IDEA

KEY IDEA

SOURCES

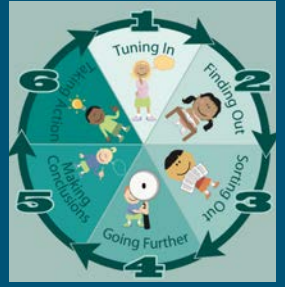
Synthesizing Ideas

Once information has been organized, note any connections among the facts and ideas you gleaned. Synthesize information by grouping similar ideas together. Some find it helpful to create a mind map or graphic organizer to visually represent synthesized information. **Note: The final submitted product will be a 1-3 page research brief following APA formatting requirements along with the digital source set. Grading criteria will be shared separately.**



MAKING CONCLUSIONS

- WHAT HAVE I LEARNED?
- HOW DO I FEEL ABOUT WHAT I HAVE LEARNED?
- HOW AND WHY HAVE MY IDEAS CHANGED?
- WHAT CONTENT (FACTS AND IDEAS) IS CRITICAL FOR A TEACHER TO KNOW PRIOR TO PLANNING CURRICULUM ON MY TOPIC?



INQUIRY PLANNING TEMPLATE

A large, empty rectangular box with a dark blue border, intended for students to write their responses to the inquiry planning questions.