# HOW TO DEVELOP A STANDARDS-BASED UNIT OF STUDY





# Appendix B

# **Unit Organizer**

A unit organizer is a statement or open-ended question that communicates the content standards in a way that engages students by connecting learning to prior knowledge, skills, experiences, beliefs and/or customs. It should focus on a life issue, problem or question that provides a meaningful purpose for student learning. Using personal, social, cultural and global concerns of students will help engage the students in the learning. The unit organizer needs to be broad, demanding students to engage in inquiry.

A unit organizer is general and relates to some big idea, thereby allowing for transferability of knowledge. This makes a unit organizer important in formulating a course of study.

# Characteristics of a unit organizer

- ⇒ Provides relevance; the why for learning
- ⇒ Standards-based
- ⇔ Connects to prior knowledge

STRONG	WEAK
You are what you eat	Nutrition
How can I use measurement to learn more about my world?	Measurement
Kentucky's Government - What's in it for me?	Kentucky Government
Old "stuff" to new "stuff": How can a better understanding of matter help us make the world a better place?	Matter
A License to Create – Picasso the Innovative Artist	Picasso
How does my English compare with King's English?	The History of the English Language
How will "teen credit" affect me?	Credit
Kentucky - More than fried chicken; Dijon - more than mustard	Cultural Products

# **Appendix C**

# **Lesson Standards**

**Targeted standards** are statements of intended learning. They identify the content, skills/processes to be taught and formally assessed in the unit. Refer to Combined Curriculum Document or standards for your subject area.

\* Supporting standards contain content, skills and processes that are relevant to the unit but may include connections to other content areas.

### Example

### **Academic Expectations:**

**2.14** Students understand the democratic principles of justice, equality, responsibility, and freedom and apply them to real-life situations.

# **Program of Studies:**

# **Understanding:**

SS-5-GC-U-3

Students will understand that the fundamental values and principles (e.g., liberty, justice, individual human dignity) of American democracy are expressed in historical documents (e.g., the Declaration of Independence, the Constitution of the United States, including the Preamble and the Bill of Rights).

# Skills/Concepts:

SS-5-GC-S-3

Students will analyze information from print and non-print sources (e.g., documents, informational passages/texts, interviews, digital and environmental) to describe fundamental values and principles of American democracy (e.g., liberty, justice) found in the Declaration of Independence and the U.S. Constitution; explain their significance today.

### Core Content:

SS-05-1.3.1

Students will explain the basic principles of democracy (e.g., justice, equality, responsibility, and freedom) found in significant U.S. historical documents (Declaration of Independence, U.S. Constitution, Bill of Rights) and analyze why they are important to citizens today. DOK 3

Once teachers have identified their targeted standards, they should break these standards apart or **deconstruct** them to determine learning targets. Learning targets are statements of what teachers want students to know and be able to do.

**Students Will Know:** What knowledge/content will students need to demonstrate the mastery of the standard or intended learning? What facts and concepts do we want students to know? These are often stated using words such as: *know, list, name, identify, describe*.

### Example:

Know the description of a democracy.

Describe principles of democracy; justice, liberty, equality, responsibility, individual human dignity.

Know why the Declaration of Independence is a significant historical document.

Know why the U.S. Constitution is a significant historical document.

Know that the Bill of Rights is part of the U.S. Constitution.

Describe why the Bill of Rights is a significant document.

**Students Will Be Able To Do:** What are the major questions students should answer through their work in this unit? What are the patterns of reasoning or thinking students will need to master? What are the skills students need to demonstrate in order to show their learning?

### Example:

Explain why the Declaration of Independence is a significant historical document.

Explain why the U.S. Constitution is a significant historical document.

Explain why the Bill of Rights is a significant historical document.

Analyze significant historical documents and provide examples that illustrate the principles of democracy.

Explain the principles of democracy and analyze why they are important today.

**Student-Friendly Targets:** Student-friendly targets communicate the intended learning targets to students in an age-appropriate manner. Explaining the intended learning in student-friendly terms at the beginning of the lesson is the crucial first step in helping students know where they are going. Students cannot assess their own learning or set goals to work toward without a clear vision of the intended learning. When students try to assess or communicate their own achievement without understanding the learning targets they have been working toward, their conclusions can be vague and unhelpful; "I think this is pretty good."

(Stiggins, 2006)

# **Examples:**

Students will know	I can describe a democracy.
	I can describe principles of democracy: justice, liberty, equality, responsibility, individual human dignity.
	I know why the Declaration of Independence is a significant historical document.
	I know why the U.S. Constitution is a significant historical document.
	I know that the Bill of Rights is part of the U.S. Constitution.
	I can describe why the Bill of Rights is a significant document.
Students will be able to do	I can explain, which means I can give reasons, why the Declaration of Independence is a significant historical document.
	I can explain why the U.S. Constitution is a significant historical document.
	I can explain why the Bill of Rights is a significant historical document.
	I can analyze, or examine, significant historical documents and provide examples which illustrate the principles of democracy.
	I can explain the principles of democracy and analyze why they are important today.

# **Program of Studies:**

# Understanding:

### SC-7-STM-U-2

Students will understand that there are only 92 naturally occurring elements and all matter is made of some combination of them (compounds).

# Skills/Concepts:

### SC-7-STM-S-2

Students will distinguish between elements and compounds and classify them according to their properties.

# Core Content:

SC-07-1.1.1

### Students will:

니 classify substances according to their chemical/reactive properties:
☐ infer real life applications for substances based on chemical/reactive properties.
In chemical reactions, the total mass is conserved. Substances are often classified into
groups if they react in similar ways. The patterns which allow classification can be used t
infer or understand real life applications for those substances.

### DOK 3

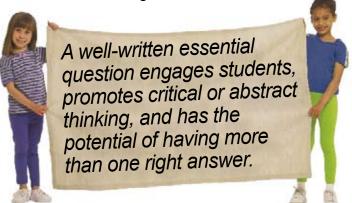
Students will know	Student-friendly targets
List the properties of elements	I can list the properties of elements.
Recognize names of common elements	I can recognize, or know from previous uses,
	names of common elements.
Identify the Periodic Table as a resource	I can identify, or recognize, that the Periodic
containing information about certain properties of	Table contains information about the known
all known elements	elements.
Ctudente will be able to de	Of the of fide will feet atta
Students will be able to do	Student-friendly targets
Distinguish physical properties from chemical	I can distinguish, or tell the difference between,
	I can distinguish, or tell the difference between, physical properties and chemical properties.
Distinguish physical properties from chemical properties	I can distinguish, or tell the difference between, physical properties and chemical properties. I can use chemical properties to classify
Distinguish physical properties from chemical properties  Classify substances according to their chemical/	I can distinguish, or tell the difference between, physical properties and chemical properties. I can use chemical properties to classify substances.
Distinguish physical properties from chemical properties  Classify substances according to their chemical/ reactive properties	I can distinguish, or tell the difference between, physical properties and chemical properties. I can use chemical properties to classify substances. I can use data about a substance to draw
Distinguish physical properties from chemical properties  Classify substances according to their chemical/	I can distinguish, or tell the difference between, physical properties and chemical properties. I can use chemical properties to classify substances.

# **Appendix D**

# **Essential Questions**

An essential question is one that is used to capture the attention of your students and maintain their interest in learning. It drives the teaching by creating a deep conceptual understanding. By using essential questions in your design, you help students

- discover patterns and build personal meanings
- discover meaning through inductive teaching
- think at complex levels
- see that you, the teacher, are learning with them



(Erikson, 2002)

Essential questions are more specific than unit organizers. They frame a unit of study by providing focus. They provide the teacher with a course theme or focus and show students connections with big ideas. A good resource for developing essential questions is the *Program of Studies*. Using the Enduring Knowledge/Understandings for each big idea of a content area in the *Program of Studies* can lead to essential questions that can help students make connections with big ideas.

SAMPLE UNIT ORGANIZERS Unit organizers are broad and promote student inquiry.	SAMPLE ESSENTIAL QUESTIONS Essential questions frame the unit of study by providing focus.
Kentucky's Government-What's in it for me?	Why do we need government in Kentucky? How can I be involved in Kentucky government?
You Are What You Eat	How do my choices about what I eat influence my health? How can I learn to make better nutritional choices?
A License to Create – Picasso the Innovative Artist	How did Picasso use the art elements and principles of design during his "blue period"? How did Picasso apply visual art elements and principles of design to change his art over his lifetime?
How does my English compare with the King's English?	How did other languages affect the development of the English language? Why are there regional differences in dialects? How did the dialect in my region of the country develop?
Old "stuff" to new "stuff": How can a better understanding of matter help us make the world a better place?	How can I distinguish "matter" from NOT matter? How do we make new "stuff" to solve new problems?
How can I use measurement to learn more about my world?	Why do we have standard units of measurement? How can we use estimation and measurement appropriately to solve problems?

Continued on next page.

SAMPLE UNIT ORGANIZERS Unit organizers are broad and promote student inquiry.	SAMPLE ESSENTIAL QUESTIONS Essential questions frame the unit of study by providing focus.
How will "teen credit" affect me?	What are the types of credit? How does a credit history affect you? How does bankruptcy affect your credit?
Kentucky More than Fried Chicken; Dijon More than Mustard: How can my study of cultural products in Dijon help me to better understand the economic effects of cultural products in my own community?	How do the cultural products of Bourgogne and Kentucky affect life and economy of the region?  How can we promote understanding of each area in the appreciation and enjoyment of our products?

The unit organizers and essential questions should develop from the *Program of Studies* Enduring Knowledge/Understandings and apply to Skills and Concepts. For example, consider the sample unit organizer from English/Language Arts:

How does my English compare with the King's English? This organizer fits under E/LA grades 11-12, the Big Idea for Forming a Foundation for Reading.

The Enduring Knowledge/Understandings for that Big Idea include:

- developing breadth of vocabulary dramatically improves reading comprehension and involves applying knowledge of word meanings and word relationships. The larger the reader's vocabulary, the easier it is to make sense of text.
- many words have multiple meanings. Knowledge of syntax/language structure, semantics/ meaning, context cues, and the use of resources can help in identifying the intended meaning of words and phrases as they are used in text.

The sample essential questions that relate to the Enduring Knowledge/Understandings for the selected Big Idea are: *How did other languages affect the development of the English language? Why are there regional differences in dialects?* 

The related *Program of Studies* Skills and Concepts that relate to the Big Idea and essential questions are:

- describe the influence of historical events on the development of the English language
- interpret the meaning of jargon, dialect, or specialized vocabulary in context
- apply knowledge of synonyms, antonyms, word parts (e.g., roots, affixes, cognates) and nuances of meaning to assist comprehension
- investigate the meanings of words and their possible effect(s) on the perceptions and behavior of people
- interpret and explain literal and non-literal meanings of words or phrases, analogies, idioms, and literary and classical allusions based on context

A teacher developing a unit of study using the organizer and essential questions would plan instruction that helps students see the connections to the organizer as well as their own lives. For example, once students understand that the Roman Empire's occupation of Britain in the first century introduced Christianity to the region and led to an influx of borrowing words from Latin, they can see why English has so many words of Latin origin. This, in turn, can lead to a study of various word origins and meanings that aid in vocabulary and comprehension as they read, discuss, and encounter unfamiliar words.

A study of settlement patterns in Britain and the United States over the centuries would help them understand that Kentucky was originally settled in large part by Scots-Irish ancestors, which in turn, created a distinct regional dialect. Or that speakers of African-American English speak a dialect passed down from a pidgin or Creole dialect that combined various African languages with other languages such as French or English. Making these kinds of connections to history and geography allows students to have a global perspective while making personal connections to their own histories and region. It also allows them to have a better understanding of vocabulary and grammar, reading comprehension and writing skills.

# **Unit Organizer – Arts and Humanities:**

How do the arts tell us about the ideas, beliefs, and feelings of the people who create them?

### Enduring Knowledge and Understandings:

- The arts are powerful tools for understanding human experiences both past and present.
- The arts help us understand others' (often very different) ways of thinking, working, and expressing themselves.
- The arts play a major role in the creation and defining of cultures and building civilizations.

### Skills and Concepts:

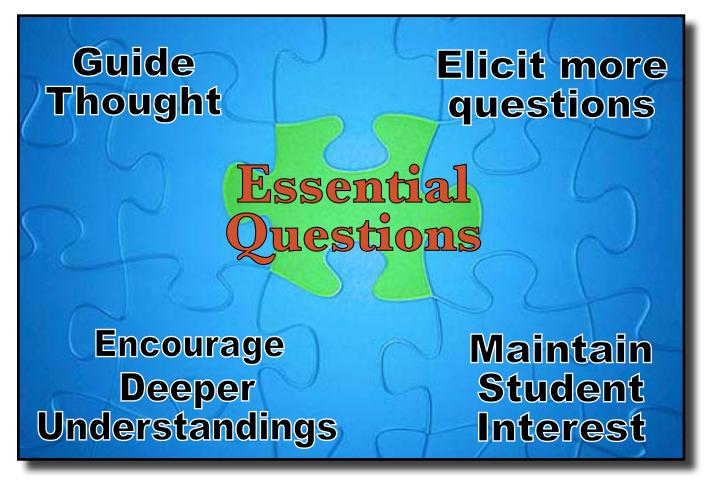
- Describe, analyze and evaluate distinguishing characteristics of music representing a variety of world cultures and historical/style periods
- Listen to, perform, and classify music representing a variety of world cultures and historical/ style periods
- Examine music from various world cultures and explain how music reflects the culture, cultural beliefs, or blending of cultures; use examples to illustrate how music has directly influenced society or culture
- Examine music from various time periods and explain how the influence of time and place are reflected in music

For example, when using this organizer, you could choose a particular culture and/or time in history such as the decade of the 1960s in America. That decade brought with it challenges to the social norms that existed in the post WWII and Korean War when there was still a strong national unity and order brought to American society through military traditions and pre-war social traditions.

As the 60s progressed, different ethnic and age groups challenged the justness of many of those traditions and protests became commonplace on the streets of America. Music, being a powerful form of communication that heightens the emotions of the performer and listener, became a rallying tool for protest groups. Much of the popular music of the 60s reflects those challenges to society and that can be seen in the music of the civil rights movement and those in opposition to the Vietnam War. This music helped to change the thinking of a whole generation and change the social landscape of America.

### **Essential Questions and the Skill Area**

Essential questions are designed so that they help students think in-depth about a topic or issue, and therefore, they do not call for specific answers. This is also true in areas of curriculum focused on skill development. It is important to remember that "skills are means not ends, the aim is fluent, flexible, and effective performance." (Wiggins and McTighe, 2005). Wiggins and McTighe suggest that essential questions framed in skill areas can be within one of these categories: (1) key concepts, (2) purpose and value, (3) strategy and tactics, (4) and context of use. Thus teachers may design a series of questions that require specific answers (e.g., How should I hold the bat? How does my stance affect my swing?) to scaffold to an essential question and build a larger conceptual understanding (e.g., How can I be most effective at baseball?). It is the application and mastery of these skills that allow students to reach the conceptual understanding.



# Appendix E

# 1. The Assessment Plan

# **DESIGNING ASSESSMENT**

NATIONAL

STATE

(Academic Expectations, *Program of Studies*, Core Content for Assessment 4.1) **LOCAL** 

Identify the ESSENTIAL QUESTIONS/LEARNING TARGETS from the unit



**Constructed Response** 

**Performance** 

**Selected Response** 

Considerations

- What do(es) the content standard(s) mean?
- What is the DOK ceiling of the standard(s), where appropriate?
- What is the purpose of this assessment?
- Is what I want my students to learn from this unit reflected in this assessment?
- Is this an important application of the focus of this unit?
- What content knowledge, including vocabulary, is necessary to successfully complete this assessment?
- What skill should my students possess/demonstrate in completing this assessment?

# **Developing a Scoring Guide**

- STANDARDS How well do we want them to know it and be able to do it?
- CRITERIA What do we want students to know and be able to do?
- QUALITY DESCRIPTORS How will we know when they know it or do it well?

# 2. Comparing Formative and Summative Assessment

Assessment information may be used in many ways. The purpose of an assessment determines if it is formative or summative.

# Assessment for Learning/Formative Assessment

"Formative Assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended audiences" (CCSSO, 2007). It is a process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there (Assessment Reform Groups, 2002). Formative assessments provide descriptive feedback to students and student self-assessment (Stiggins, 2006). Examples of formative assessment include: observations, student conferences, writing tasks, performance tasks, prior knowledge assessments, rubrics, feedback, and student self-assessment (quoted in NSDC, 2006).

# Assessment of Learning/Summative Assessment

Summative assessments happen after learning is supposed to have occurred to determine if it did (Stiggins, 2006). They occur most often at a point in time when students are ready to demonstrate achievement of curriculum objectives (end of unit tests, performance events, projects). Often assessment and evaluation results provide both formative and summative information. For example, summative evaluation can be used formatively to make instructional decisions. It informs and provides direction about student progress and determines where further instruction is recommended for individuals or groups.

# 3. Understanding the differences between formative and summative assessment

	Assessment <b>for</b> Learning (FORMATIVE)	Assessment <i>Of</i> Learning (SUMMATIVE)
Purposes of Assessment	Promote increases in achievement to help students meet more standards; support ongoing student growth; improvement	Document individual or group achievement or mastery of standards; measure achievement status at a point in time for purposes of reporting; accountability
Place in Time	A process during learning	An event after learning
Typical Uses	Provide students with insight to improve achievement; help teachers diagnose and respond to student needs; help parents see progress over time; help parents support learning	Certify student competence; know students' achievement levels and adjust instruction accordingly; promotion and graduation decisions; grading
Teacher's Role	Transform standards into classroom targets; inform students of targets; build assessments; adjust instruction based on results; offer descriptive feedback to students; involve students in assessment	Administer the test carefully to ensure accuracy and comparability or results; use results to help students meet standards; interpret results for parents; build assessments for report card grading
Student's Role	Self-assess and keep track of progress; contribute to setting goals; act on classroom assessment results to be able to do better next time	Study to meet standards; take the test; strive for the highest possible score; avoid failure
Examples	Using rubrics with students; student self-assessment; descriptive feedback to students; observations; student conferences; portfolios; performance tasks; prior knowledge assessments	Achievement tests; final exams; placement tests; short cycle assessments

(Adapted from Stiggins, Arter, Chappius and Chappius, 2006)

# 4. Questions to consider as you plan for assessments

# 1. Clear Purposes

Often assessment and evaluation results provide both formative and summative information. For example, summative evaluation can be used formatively to make instructional decisions. It informs and provides direction about student progress and determines where further instruction is recommended for individuals or groups.

- a. What is the purpose of the assessment (s)?
  - O Who is going to use the assessment(s)?
  - O How will the classroom assessment information be used?
- evaluation results provide b. How does the assessment/assessment experience address both formative and student motivation?
  - c. I plan to use the following formative assessments (used during instruction to provide feedback to adjust ongoing teaching and learning):
    - pre-assessment aligned with learning targets on-going
    - antecdotal records
    - conferences and interviews
    - journals, learning logs
    - O running records
    - O class discussions
    - Student conferences
    - O portfolios
    - O performance tasks
    - selected responses and constructed responses
    - rubrics and/or scoring guides
    - O feedback
    - students monitor progress to reach learning targets
    - O students use feedback to set goals
    - students revise assessment answers
    - self-assessment/reflection
    - O other:
  - **d.** I plan to use the following summative assessments (used after learning is supposed to occur to determine if it did):
    - o end of unit tests (including MC and OR)
    - O performance events
    - O projects
    - examples from the formative list above
    - O other:

### 2. Target

- a. What content standards does this unit address?
- b. Are my content standards broken down into parts which address:
  - O knowledge students need to demonstrate?
  - thinking/reasoning students need to demonstrate to show knowledge?
  - O skills students need to demonstrate?
  - products/product development students need to acquire if any?
- c. Are my learning targets focused on the most important things students need to know and be able to do?
- d. What are my plans for assessing the learning targets of this unit?

  Do I use a variety of assessments (see examples above, 1 c & d)?

3. Co		<ul> <li>a. How do the assessment results measure the current level of student learning?</li> <li>b. Have I used a variety of reporting options to communicate assessment results effectively to students? <ul> <li>descriptive feedback/narratives</li> <li>conferences/verbal feedback</li> <li>observations</li> <li>rubrics and/or scoring guides</li> <li>grades</li> </ul> </li> <li>c. How can the assessment results be communicated to stakeholders such as administrators, parents, and colleagues?</li> </ul>
	volvement	<ul> <li>a. Have I made the learning targets clear to students, using student-friendly language?</li> <li>b. Have I involved students in assessing, tracking and setting goals for their own learning?</li> <li>c. How can I involve students in communicating about their own learning (e.g., ILPs, reflective letters, student-led conferences)</li> </ul>

(Adapted from JSD National Staff Development Council, 2006)

# 5. Entry-level Assessment

Entry-level assessments are used to gather initial information about the level of understanding, skill and/or knowledge students have prior to instruction.

### How do I

- find out what my students already know and are able to do?
- find out what additional support students need to meet a given learning target?
- form flexible groups for instruction based on what students know and are able to do?

### This type of assessment answer the following questions:

- What knowledge and skills do students already have?
- Are students ready for a lesson on a given concept (e.g., do they have the necessary prerequisites)?
- Are students ready to go beyond a given concept? (Before moving to the next lesson, make sure content is not required as a prerequisite for another unit/lesson/content area.)
- Will students need additional support to meet a given standard? (e.g., adjusting grouping arrangements, altering the level of content materials.)

# **Benefits of Entry-level Assessment**

- Knowing what needs to be reviewed or retaught
- Knowing what foundation the students have for new learning
- Helping to meet the needs of all learners
- Forming groups for instruction
- Good pre-assessment results in more intentional instruction and more efficient use of students' time

# Types of Entry-level Assessment

The entry-level assessment may take a variety of forms (e.g., constructed response, graphic organizer, illustrations, interviews, graphs, etc.) but it must yield two types of information:

- information about each student's entry level (entry into the unit of instruction) knowledge/ skills;
- information from which you will be able to measure student gains in knowledge/skills as a result of instruction; i.e., knowledge/skills gained between pre- and post-assessments.
   KTIP 2007

### Adapted from

Ohio Department of Education, Assessment Philosophy.

# Appendix F

# 1. Addressing Individual Student Needs

Teachers should consider how learning experiences within a unit meet the needs of all students. To accomplish this, teachers may consider the answers to such questions as these.

### How will the unit

- address various learning styles?
- address multiple intelligences?
- meet the needs of diverse learners (e.g., special education, gifted, ELL, cultural diversity)?
- support active learning?
- promote critical thinking skills?
- address student readiness through background and prior experience?
- address student interest and motivation?

# 2. Sequencing for Learning

When planning for learning, teachers should consider the best sequence for learning experiences. What skills need to be mastered before students move to another lesson? How do I build lessons to accomplish the end result? A series of lessons should guide the overall standards-based unit of study.

To sequence lessons within a unit of study, consider these questions.

- What learning experiences will help develop and deepen understanding of important ideas/ concepts?
- How will the learning experiences be organized to maximize engaging and effective learning?
- What sequence will work best for my students to understand this content?
- How do the lessons move students from foundational to critical thinking skills?

# Sequencing the Learning

Monday	Tuesday	Wednesday	Thursday	Friday
1	2	93	4	5
6	チ	8	9	10
11	12	13	14	15

# 3. Literacy

Literacy instruction involves the teaching of reading, writing, speaking, listening, and observing, the literacy strands indicated in Kentucky's *Program of Studies*. Content literacy is a component of literacy instruction, but literacy instruction means more than reading and writing to understand content. Literacy involves the students' overall ability to understand information and communicate effectively. It is an essential skill that forms the foundation of all learning; likewise, literacy is a developmental and lifelong process fundamental to success in school and life beyond school.

Two major components of literacy instruction are reading and writing. Both of these areas of literacy need explicit instruction throughout the grade levels and content areas. Literacy skills should be continually refined as students move from grade to grade; therefore, it is important that all teachers understand the importance of literacy to success in school and beyond.

# 4. Content-area Literacy

"Much as every house requires a strong foundation, all students should be grounded firmly in the fundamentals of literacy" (Heller and Greenleaf 2).

Content-area literacy may be defined as the student's ability to use reading and writing and other literacy skills (e.g., speaking, listening, observing) to gain new knowledge within an academic content area. In the world today, students need multiple literacies to be able to read, comprehend, and synthesize the amount of information they are bombarded with on a daily basis (Fisher and Frye 2). Teachers across the grade levels and content areas must help students develop those literacies.

A recent report by the Alliance for Excellent Education, *Literacy Instruction in the Content Areas*, reiterates that literacy instruction comprises "the very heart of the academic content areas" (3). Every content area has its own set of literacy strategies necessary for success within the content area. If educators are to help students be successful within those content areas, they must consider how these literacy strategies may be integrated within units of study to improve and enhance instruction.

Content literacy instruction is so important that teachers should not expect students to become experts in the content classes without considering the literacy strategies necessary for student success. "Students won't learn how to read and write and become comfortable in the field of biology, for example, unless they spend a lot of time reading, writing, and talking about biology, ideally with interested peers and well-trained teachers" (Heller and Greenleaf 7). To summarize, in order for students to succeed in any content area, students must be able to read, write, and communicate about the content they are studying.

# 5. Inquiry learning

Inquiry learning suggests student involvement and ownership in the learning process that leads to a depth of understanding. Units should be organized to maximize inquiry learning as much as possible. Students who have choice in their learning become more involved and engaged, and, therefore, achieve at much higher levels than students in classes that do not promote inquiry.

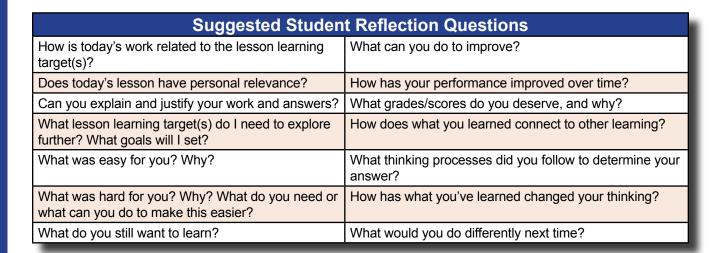
# 6. Technology integration

Technology is an important part of students' lives in the 21st century. Teachers who utilize and integrate technology as a method of teaching promote critical thinking about the purpose of and the importance of various kinds of technology in students' lives (e.g., blogs, podcasts, Internet).

# **Appendix G**

# **Student Reflection**

"Any activity
that requires students
to reflect on what they are
learning and to share their
progress both reinforces the
learning and helps them develop
insight into themselves as
learners. These are keys to
enhancing student motivation"
(Stiggins et al, 2006)





"Effective learners are aware of how they learn, set personal learning goals, consistently self-assess and adjust their performance. One approach involves having learners regularly respond to reflective questions. Such questions encourage students to reflect on their learning, make connections to prior learning and across content areas, self assess their performance and set goals" (Wiggins and McTighe, 2004)