

# UNDERSTANDING CONCEPT-BASED UNIT DESIGN

## *A Process for Developing Local Curriculum*

*Note: While there are different models for designing concept-based units, the following critical components outlined in this concept-based unit design process is mostly based on the work of Dr. H. Lynn Erickson, international expert in concept-based curriculum and instructional design. Her work approach to curriculum and instructional design is better suited for the type of teaching, learning and assessing necessary for success with the new Essential Standards.*

### **Intended Use:**

This document is intended to be used as a guide for those educators who would like to develop their local curriculum by designing concept-based curriculum units. It will be most useful for those educators who have attended a concept-based unit development training and are experienced with developing concept-based units.

### **Organization:**

This document is outlined as a process of steps. Each step contains a description of that step as well as questions to pose to guide your work. While a process is outlined in this document, understand that it is iterative. Additionally, as you begin to write your units, you may engage in several steps simultaneously. The process is presented here as steps for coherency.

## The Process:

### STEP 1: “Unpack” the Standards. (This includes any content standards you will be using i.e. state, district or school content goals/objectives)

This is the process of analyzing the academic standards to identify what students are expected to understand (concepts/big ideas), know (facts) and be able to do (skills and processes) at a particular grade level or for a particular course and for a particular discipline. The North Carolina Department of Public Instruction (NCDPI) has provided Unpacking Documents for each content area represented in the NC Standard Course of Study. These documents serve to clarify the intent of the standards; however, you will have to add additional content, skills, and understandings to accommodate your local expectations for the curriculum you develop.

As you unpack the state standards for the grade level or course for which you will develop your local curriculum, ask yourself:

- What concepts are explicitly stated in the standards? What are some implied concepts that students should understand?
- What skills and/or processes will students have to know how to do?
- What broad topics could I teach that support the concepts identified in the standards?
- What cognitive processes should my students be engaged? (Identifying the verbs gives you this information i.e. analyzing, applying, evaluating.)

### STEP 2: Create an outline of units you may teach for the entire year. (This includes unit titles and conceptual lenses.)

The Unit Title should reflect the centering topic of study.

As you decide on the units you will teach for the year, ask yourself the following questions:

- What topics do I teach at my grade level or for my course?
- What topics lend themselves to an in-depth unit of study?
- How can I sequence the topics so that they logically connect to each other in order to enhance understanding for my students?
- How many units will I teach at this grade level or for this course?

Typically, the rule of thumb is:

- Three to four units for elementary grades K-3
- Four to six units for elementary grades 4-6
- Five to eight units for grades 7-12

The **Conceptual Lens** is a broad, integrating concept (or two concepts together), or conceptual-level question, that acts as a conceptual filter for student to use in processing factual information.

As you decide on the conceptual lens you will use for each unit, ask yourself the following questions:

- What concept will focus the study?
- What concept will give the study a focus that will promote thinking beyond the factual level?
- What concept will allow for integration of the curriculum if you are developing integrated units?

### STEP 3: Draft a brief summary or overview that describes each unit.

A **Unit Overview** is necessary to inform others about the intent of the unit of study.

As you begin to write an overview of the unit, ask yourself the following question:

- How will you describe the unit of study so as to capture the imagination of other teachers who may use this unit as well as invite students to engage in learning?

### STEP 4: Identify the specific Clarifying Objectives that support each unit.

During this step, you simply assign the **Specific Standards** that support each unit. This step occurs only if you are mandated to teach specific content standards. From these standards, you will identify the critical content and concepts that support the unit of study. This identification will occur in step 5 as you develop a concept/content web.

As you begin to align specific standards to each unit, ask yourself the following questions:

- What relevant content standards will this unit address?
- Are there opportunities to integrate with other disciplines?

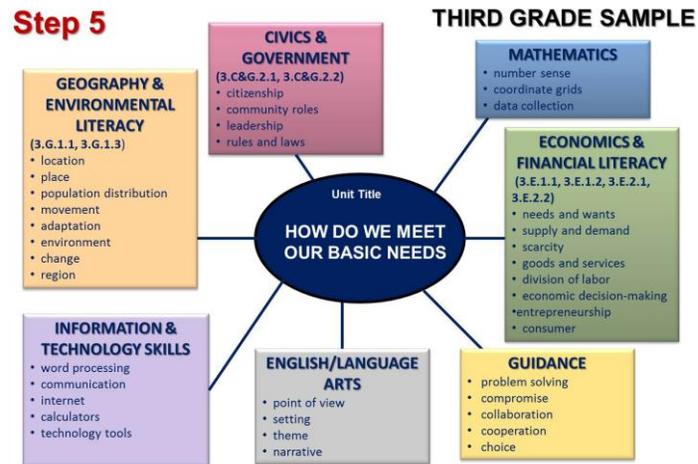
## STEP 5: Create a Concept/Content Web.

A Concept/Content Web is a brainstorming tool that identifies, at a glance, the critical content subtopics and concepts that will be taught during the course of the unit. If you create an overview web for each unit you will teach prior to completing the full unit, it will give you the opportunity to ensure that you have fully integrated all necessary content standards in one or more units and allows you to see the breadth and depth required for instruction.

As you the Concept/Content Web, ask yourself the following questions:

- What are the critical concepts that will be addressed in this unit by strand?
- What are the critical subtopics that will be addressed in this unit that supports the concepts?
- Are all of the content standards included in 1 or more units?
- Is the unit manageable with the content and concepts identified? (not too much, but enough to allow for in-depth study)

### Examples 1 of a Concept-Content Web



### Example 2 of a Concept-Content Web

Culture	Geography	History	Economics	Government
Objectives Taught:				
Subconcepts & Subtopics:				

## STEP 6: Write Generalizations/Understandings/Big Ideas

One of the most critical elements of a concept-based unit and concept-based instruction is the generalization. Generalizations, also called enduring understandings, big ideas or essential understandings, are conceptual ideas or lessons of a discipline that transfer beyond one time, place or situation. They are derived from identifying the connection or relationship between two or more concepts. These are the statements of conceptual understanding that inductively help students arrive at during instruction.

As you write generalizations for your unit, ask yourself the following questions:

- What are the big ideas, related to the topic under study, that I want my students to develop that transfers to other lessons, other units, other grade levels, other courses?
- What relationships do I see between and among the concepts on the concept/content web for which I can develop statements of conceptual understanding?

## STEP 7: Write Guiding Questions to support each generalization/understanding

For every generalization/understanding in a unit, there should be a set of Guiding Questions that guide students thinking from concrete to abstract levels. There should be a mix of different kinds of questions from factual to conceptual. And, there should be 1-2 provocative or debatable questions per unit.

As you write guiding questions for each generalization in the, ask yourself the following questions:

- What questions will foster inquiry, understanding, and transfer of learning?
- What questions will focus my students on the concepts that they will need in order to form generalizations?
- Do I have a mix of factual and conceptual questions?

**\*Note: As you examine your generalizations, make sure that all of your concepts from the unit web are included here. Also, make sure that you include mixture of factual and conceptual questions that will lead students to arrive at the generalization. Label each question as factual (f), conceptual (c), or provocative (p). Provocative questions should be limited to about 2 per unit. Essential questions should be matched with its generalization. Finally, make sure that you have enough questions to support this unit of study. Keep in mind that this will be a 4-5 week unit.**

Generalizations:		Guiding Questions:	
Culture		Culture	
Geography		Geography	
History		History	
Economics		Economics	
Government		Government	

### STEP 8: Identify Critical Factual Content

One thing that is important to remember about concept-based curriculum and instruction is that the facts are important. All students need to have a body of factual knowledge in order to provide examples that support the generalizations. You should identify the critical Factual Content that students need to know in order to be successful during the unit.

As you identify the critical factual content that students need to know during the unit, ask yourself the following questions:

- What are the critical content (knowledge) students will need to master in order to reach understandings in this unit of study i.e. key terminology, specific people, places, etc.?
- What factual examples could I use during the unit of study that will build provide enough evidence for students to see patterns that lead them to make generalizations?

### STEP 9: Identify Key Skills

Another key element that is important to concept-based curriculum and instruction is the acquisition of skills. All students need to have multiple opportunities to utilize skills learned to become an expert in a discipline. You should identify the key Skills that students need to know in order to be successful during the unit. Some skills may be identified in content standards, others may be district and/or school mandates.

As you identify the key skills that students need to use during the unit, ask yourself the following questions:

- What key disciplinary skills do I want my student to acquire and or utilize during the unit of study?
- Are there any multi-disciplinary skills or skills from another content area that would be useful to students during this unit?

**STEP 10: Align Assessments to understandings (Developing Performance Tasks) factual content and skills**

You should use a variety of assessment methods to determine if your students have learned the requisite skills and are able to use them, acquired the requisite knowledge, but most importantly understand big ideas from the unit that they can transfer. Some examples of assessment methods are listed in the box below. You should identify which methods you will use to assess the factual content, the key skills, and the generalizations. The best method to assess generalizations is the use of authentic performances.

AC = Assessment Codes		
Q = Quizzes	SA = Student Self-Assessment	O = Observations
T = Tests	WS = Work Samples	D = Dialogues
P = Prompts		

Students Will Know... (Factual Content)	AC	Key Skills...	AC
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	

**Performance Tasks** demonstrate what students must know, understand and be able to do in the unit. The performance task must always require students to demonstrate their understanding of at least 1-2 of the most important generalizations from the unit of study.

As you develop performance tasks and align other assessments to the remaining generalizations, factual content and key skills, ask yourself the following questions:

- How can I develop a task that will require my students to demonstrate an understanding of 1-2 key generalizations used in the study of the topic?
- What skills do I want to assess in the performance task?
- Is there particular factual content that I want my students to demonstrate they know or am I simply ensuring that they present factual information?
- What criteria should I include in a rubric or scoring guide to assess my students' performance task?
- How will I assess the remaining generalizations, factual knowledge and key skills of the unit?

Performance Task #1

Performance Task #2

## STEP 11: Develop Learning Experiences to support the performance tasks

**Learning experiences are the work that students do in preparation to complete the performance task(s).**

As you develop learning experiences to support the performance task(s), ask yourself the following questions:

- How can I sequence my lessons so that they build toward the formation of a generalization by my students?
- What experiences can I create to help my students learn how to acquire, organize and present information using skills necessary to complete the performance tasks and show mastery of the intended outcomes?
- How will students acquire factual content that they can use in completing the performance task?

Suggested Learning Experiences	Enduring Understanding	Critical Content	Key Skills
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

**STEP 12: Identify Unit Resources and write any helpful Teacher Notes**

**Unit Resources entails anything you and the student will need to carry out the unit instructions and**

As you make a list of resources and brainstorm helpful tips, ask yourself the following questions:

- What resources do I need to teach this factual content, the key skills, and lead students to arrive at the generalizations?
- What are some things to consider for other teachers who may teach this unit?
- How should you differentiate for the different learners in your classroom?

Unit Materials/Resources	Teacher Notes