

**Unit Overview:**

Over the course of the year we will study: geography, biomes, and culture using non-fiction and fiction in multiple genres and formats. Working alone and in groups students will demonstrate the knowledge and skills they've acquired via class work and culminating projects.

**Around the World Conceptual Theme:** Relationship to broader curriculum goals in the discipline & in other disciplines?  
*(Component 1c)*

We must understand our world in order to appreciate the complexity of the human condition, to respect diversity, and to work for peaceful co-existence.

**Biomes Conceptual Theme:** Relationship to broader curriculum goals in the discipline & in other disciplines?  
*(Component 1c)*

One way to understand the diversity in our world – cultural, political, and ecological – is to become familiar with a region's geography, climate, temperature, and with the daily rhythms of different environments.

**NYS Standards:** How do these goals support the district's curriculum, state framework, and content standards?  
*(Component. 1a & 1c)*

**Literacy Standards:****\* Standard 1: Language for Information and Understanding**

Students will listen, speak, read, and write for information and understanding. As listeners and readers, students will collect data, facts, and ideas; discover relationships, concepts, and generalizations; and use knowledge generated from oral, written, and electronically produced texts. As speakers and writers, they will use oral and written language that follows the accepted conventions of the English language to acquire, interpret, apply, and transmit information.

**Listening and Reading**

**S1\_1:** Listening and reading to acquire information and understanding involves collecting data, facts, and ideas; discovering relationships, concepts, and generalizations; and using knowledge from oral, written, and electronic sources.

**Speaking and Writing**

**S1\_2:** Speaking and writing to acquire and transmit information requires asking probing and clarifying questions, interpreting information in one's own words, applying information from one context to another, and presenting the information and interpretation clearly, concisely, and comprehensibly.

**Social Studies Standards****\* Geography**

Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global.

Elementary Performance Indicator:

Identify and compare the physical, human, and cultural characteristics of different regions and people.

**\* Others apply, but these are central**

What are the goals for the lesson? What do you want the students to learn? *(Component 1c)*  
 Why are these goals suitable for his group of students? *(Component 1c)*

Essential Understandings	Essential Questions	Knowledge & Skills
<ul style="list-style-type: none"> <li>- Biomes are comprised of particular flora and fauna whose needs are compatible with each biome's climate – precipitation, temperature, hours of daylight etc.</li> <li>- The biome in which people reside influences culture -- how people live, work, play, what they believe, and what we have come to accept as norms. (Tie in to lessons on children in various countries – how they live, work play.)</li> </ul>	<ul style="list-style-type: none"> <li>- How does the biome in which people live affect their lifestyle, beliefs and behavior (culture).</li> <li>- How do the attributes of a biome influence (and dictate) the flora and fauna which are compatible with a particular place.</li> </ul>	<ul style="list-style-type: none"> <li>- Skill: Identify Biomes on a physical map that has a Key to biomes.</li> <li>- Knowledge: When shown "pictures", descriptions (text, audio, video) of biomes – indicate which of six biomes is represented.</li> <li>- Knowledge: Explain what a biome is in terms of climate, temperature, flora and fauna.</li> <li>- Knowledge: Give examples of how people in different biomes live, work and play – relate to attributes of biome.</li> </ul>

**Culminating Project:** Once the six biomes have been covered, students will be divided into groups of four. These groups will do additional research on their biomes and present a "news report". Groups will incorporate student-created artwork depicting the key information for their biome – this info will be displayed behind the students as they give their reports. Groups will be videotaped during recess and completed productions will be shared with the whole class during a subsequent library period.

**Resources:** What instruction materials or other resources, if any, will you use? *(Component 1d)*

**Instructional Materials, resources, technology:**

- Biomes Project Organizer which incorporates multiple media images, audio, text, and video for each biome.
- Books, websites etc. with additional information to be used during group work on one of six biomes.
- Manipulatives – Globe, Puzzles, picture cards & games (matching game – biome, flora, fauna)
- Materials at levels that are accessible to students below, on and above grade level.
- Flexible grouping along the way.

**Preparation:**

What difficulties do students typically experience in this area, and how do you plan to anticipate these difficulties?

*(Component 1a) Notes to me:*

- Material must have meaning for the learner.
- Understand what knowledge and previous experiences students are bringing into the classroom.
- Incorporate repeated opportunities to practice and use what they've learned.
- Provide feedback and reinforcement
- What their research tells us is that on average we recall: 7% of the content of a lecture, • 7 to 15% of what we read; 15 to 30% of content simultaneously using two or more media; about 50% of content that includes interactive discussion, 65- 80%% of content that involves practice by doing; more than 85% that involves the teaching others or the immediate application of learning

**Background Knowledge**

For many students, the most basic background knowledge is lacking. In the case of biomes, I do not take for granted that students have either the vocabulary or the conceptual knowledge necessary to make connections unless I start at ground zero. Taking a systems approach – we look at the whole (the earth / globe) and apply "structural decomposition" to move from the general to the specific – and back again. Earth – Continent – Country – etc. and then back again. In the case of "biomes" we'll use physical maps to zero in on land areas which represent six biomes – desert, mountains, etc. (not assuming that that these six terms are common knowledge for everyone) and then use images, video, audio, text etc. to help students make a lasting connection to the attributes of each biome. (See Biomes Project Organizer)

**Teaching and Learning Experiences:**

(Instructional Strategies/Activities, Grouping, Modification, Performance Tasks, Projects, Academic Prompts to evaluate understanding.)

How do you plan to engage students in the content? What will you do? What will students do? (Time estimates)

(Component 1c)

**5 Minutes:**

Mini-Lesson on **Five Star Book Reviews** – in process

**25 Minutes:****1. Around the World – Unit Overview**

- Where are we going? Book Display, Globe
- Passports ~ Stamped as we progress through the units (BIOME Stamp, etc.)
- Projects and Activities

**2. Biomes - What Do Students Know Already: (KWL)**

What is a Biome? Examples of Biomes? *Listen for the following in responses:*

- Location, climate, temperature, flora, fauna etc.

**3. First Biome: (KWL)**

What is a Desert? *Listen for the following in responses:*

- What animals live there?
- What plants live there?
- What is the climate like?
- If you lived in a desert biome – food, clothing, home, work

**4. Share Biomes Graphic Organizer on Smart Board**

- Use Desert Biome as an example

**10 Minutes:**

Book Selection or Silent Reading

**MODIFICATIONS:**

- Materials at levels that are accessible to students below, on and above grade level to address learning styles, disabilities etc.
- Flexible grouping to address learning styles, disabilities etc.

**Framework for Teaching 4 Domains:**

<http://www.grandviewlibrary.org/FrameWorkForTeaching/FourDomainsChart.pdf> National Association of School Psychologists – <http://www.grandviewlibrary.org/CurriculumAdaptations/NineTypes.pdf>

**Adapted From: *Understanding By Design* Grant Wiggins & Jay McTighe  
*Concept-Based Curriculum* by H. Lynn Erickson / Foreword by Carol Ann Tomlinson c2002**

### **What is concept-based curriculum?**

A concept is an idea that is timeless, abstract, broad and can be shown through a variety of examples. Conflict, change and perspective are concepts. Examples of the concept change can be found in social studies (historical events), science (erosion), literature (characters) and mathematics (trading).

Two jobs that concepts have are to focus the study of topics and integrate the curriculum. Looking at a topic through a concept gives the study a focus. For example, the topic fairy tales can be looked at through the concept culture. With this focus, students can study fairy tales from different cultures. They can find similarities and differences in fairy tales in order to understand the effect that culture has on literature. Without the focus of a concept, only factual learning takes place.

Concepts, due to their broad nature, provide opportunities for curriculum integration. Culture could be used to integrate language arts (fairy tales from different countries) with social studies (geography). Also, because concepts are timeless, they are relevant to students' lives. The study of topics, guided by the focus of culture, allows students to develop an understanding and hopefully acceptance of people of different cultures.

Skills are embedded in the study of a topic. For example when studying fairy tales through the concept of culture, map skills can be taught. As students notice cultural elements in fairy tales, they can locate the countries from which the fairy tales originated. Language arts skills can be taught as students write their own fairy tales and compare and contrast versions of fairy tales from different cultures.

When teachers base their instruction on concepts, they can expect their students to learn more than just facts. During a concept-based unit of study, students are given many examples of concepts. Through these examples of concepts from the topic, students notice common elements. Discussion, guided by carefully planned and also spontaneous questions, helps students form generalizations.

A generalization is a statement that shows a relationship between two or more concepts. The formation of a generalization by students is the objective a teacher strives for in her lessons. The ability to generalize using examples from a topic shows that students have achieved genuine understanding. In teaching a fairy tale unit, the teacher would strategically present students with appropriate examples of cultural elements found in fairy tales. Then after discussion, the teacher would guide students to form the generalization, "Literature reflects elements of a culture."

Instruction based on conceptual generalizations is an effective way for students to genuinely understand topics, but more importantly, it is an effective way to teach students to think.

### **Eight Step Concept-Based Model**

**Choose a topic to study.** What topics do I teach at my grade level? What topics lend themselves to an in-depth unit of study? Do I have or can I get materials to create an in-depth unit of study on this topic? How can I sequence the topics so that they logically connect to each other in order to enhance understanding for my students?

**Decide on a concept.** What concept will focus the study? What concept will give the study a focus that will promote thinking beyond the factual level? What concept do examples from the topic lend themselves to? What concept will allow for integration of the curriculum?

**Brainstorm areas of the curriculum that can be integrated in the study of the topic.** What disciplines can be connected to the topic using the concept? How can I create an in-depth study by tying in topics and resources from other disciplines?

**Create generalizations.** What generalizations related to the topic do I want my students to form?

What generalizations can be formed from examples from the topic? How can I put two or more concepts together to form a relationship that will help my students achieve genuine understanding? How can I sequence my lessons so that they build toward the formation of a generalization by my students?

**Think of questions and use charts.** How can I turn the generalizations that I planned in step four into questions? What questions will focus my students on the concepts that they will need in order to form generalizations? What column headings for my chart will focus my students' thinking in order to form a generalization? What examples from the unit of study will build on each other toward the formation of a generalization as I record them on my chart?

**Identify skills.** How can I help my students develop skills in acquiring, organizing and presenting information during the unit of study? What skills lend themselves to instruction during this unit of study? How can I incorporate instruction in reading, writing, listening, speaking, critical thinking, problem solving and mathematics skills? How can technology skills be used to help students acquire, organize and present information?

**Plan lessons.** What lessons can I create to help my students learn how to acquire, organize and present information using skills in comprehension, grammar, punctuation, capitalization, spelling, etc. skills? What lessons can I create that will develop higher level thinking skills?

**Develop a performance task.** How can I develop a task that will require my students to demonstrate an understanding of a concept used in the study of the topic? What task that my students will present will show that they have acquired and organized information about the topic? What understandings and skills do I want to assess in the performance task? What criteria should I include in a rubric to assess my students' performance task?

From: <http://www.d118.s-cook.k12.il.us/central/curriculum/what.html>

**W H E R E - EXAMPLE**

<b>W</b>	How will you help students know <b>where</b> they are headed and <b>why</b> (e.g., major assignments, performance tasks, and the criteria by which the work will be judged)?	<ul style="list-style-type: none"> <li>▪ Post essential questions on bulletin board.</li> <li>▪ Present description of the performance tasks early in the unit, along with scoring rubrics.</li> </ul>
<b>H</b>	How will you <b>hook</b> the student through engaging and thought-provoking experiences (issues, oddities, problems, and challenges) that point toward essential and unit questions, core ideas, and performance tasks?	<ul style="list-style-type: none"> <li>▪ Begin unit with a “mystery” – for example, the seafarers’ disease (scurvy_ that cleared up once fresh fruits and vegetables were consumed. This mystery serves as a doorway into exploration of the unit question.</li> </ul>
<b>E</b>	What learning experiences will <b>engage</b> students in exploring the big ideas and essential and unit questions? What instruction is needed to <b>equip</b> students for the final performances?	<ul style="list-style-type: none"> <li>▪ The performance tasks are relevant, real-world applications of nutrition knowledge.</li> <li>▪ The planned learning activities and lessons (e.g. guest speaker) will support work on tasks.</li> </ul>
<b>R</b>	How will you cause students to <b>reflect</b> and rethink to dig deeper into the core ideas? How will you guide students in <b>revising</b> and <b>refining</b> their work based on feedback and self-assessment?	<ul style="list-style-type: none"> <li>▪ Students evaluate hypothetical family diets for nutritional balance, then reflect on their own eating habits.</li> <li>▪ Students will have an opportunity to revise their health brochures based on peer review.</li> </ul>
<b>E</b>	How will students <b>exhibit</b> their understanding through final performances and products? How will you guide them in <b>self-evaluation</b> to identify the strengths and weaknesses in their work and set future goals?	<ul style="list-style-type: none"> <li>▪ The tasks (illustrated brochure and camp menu) will provide evidence of understanding.</li> <li>▪ Students self-evaluate their task and project using the rubrics.</li> <li>▪ Unit concludes with student self-assessment on their own healthy eating.</li> </ul>