





Discovering Our Heritage



*A Community
Collaborative
Approach*

Fifth Grade

*Model Social Studies Program Incorporating
Environmental Education to Integrate the Teaching of
History, Geography, Science, Mathematics, and Language Arts*



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*K-6 Model Social Studies Program Incorporating
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Fifth Grade

Douglas J. Phillips

A Program of the Alabama Wildlife Federation



*Developed by the Alabama Museum of Natural History
in cooperation with the Alabama Cooperative Extension System
and the Alabama State Department of Education*

To obtain copies of the
DISCOVERING OUR HERITAGE Guidebook for Teachers and Administrators
and the individual grade-level
DISCOVERING OUR HERITAGE Kindergarten through Fifth Grade,
please contact:
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A Message from the State Superintendent of Education

Alabama can proudly boast of numerous innovative educational programs currently underway in school systems around the state. This variety is beneficial because specific pathways to learning that are appropriate in one situation might not be most appropriate for another situation. The professional judgment of local administrators and teachers is our strongest asset in making such determinations. With this in mind, I want to invite your attention to a very timely new program, DISCOVERING OUR HERITAGE, developed by Alabama educators for Alabama schools and communities.

Throughout the nation today, there is a growing recognition of the importance of environmental education, to ensure a healthy environment, to sustain a viable economy, and to augment overall student development and academic performance. DISCOVERING OUR HERITAGE is a unique program that helps address these needs for Alabama without placing added demands on our teachers. Rather, this program incorporates environmental education to support and reinforce many requirements of the Alabama Course of Study. Also, this program is sufficiently flexible to be adapted in most school systems without disrupting existing policies and practices.

I am pleased to acknowledge the organizations that sponsored production of DISCOVERING OUR HERITAGE, the Alabama teachers who helped in its development, and the Alabama schools that are using this program. I would like to join them in offering DISCOVERING OUR HERITAGE as an especially valuable pathway to educational success.

— DR. ED RICHARDSON

Foreword

the challenges facing education and strengthen local support for school policies and for the needs of teachers, students, and the classroom.

The heritage of our nation is one of freedom-loving peoples striving to improve opportunity for all in a land that is blessed with remarkable natural resources. As a primary vessel of this heritage, our democratic system depends increasingly upon education to inform society, sustain reason, cultivate civility, and instill both a sense of stewardship for our lands and waters and a sense of humanity for one another. In turn, to serve this role effectively, education must draw upon a central premise of democracy and ensure that communities are active participants in supporting local schooling.

DISCOVERING OUR HERITAGE provides a model for addressing these multiple aims through a coherent framework linking people to the land, learning to the real world, and the school to the community. Students and teachers are assisted in assembling otherwise fragmented subject matter into a more meaningful, conceptual understanding of our world. Science is related to society, institutions to cultures, the environment to economics, and personal responsibility to community well-being. Ultimately, DISCOVERING OUR HERITAGE is a program and a process enhancing the role of education as a purposeful means to human progress.

— DR. DOUGLAS J. PHILLIPS
Program Director, DISCOVERING OUR HERITAGE

American education today must meet a greater range of needs and serve a larger number of students than ever before. However, our schools also face an increasing array of difficulties, many of which are complex and closely intertwined with the changing conditions of society at large. Any educational program seeking long-term success must recognize this reality. Any program hoping to truly assist schools must appreciate the prevailing demands on teachers, the heavy responsibilities on administrators, and the conflicting pressures that often beset local school boards.

There may be no simple solution fitting every educational need in the nation, but Alabama educators have worked together in designing DISCOVERING OUR HERITAGE as a model for addressing many of the needs in Alabama schools. Central to this design is the philosophy that the realm of nature is an exceptional laboratory for learning, that environmental education, done correctly, provides students with meaningful connections between academic learning, applied problem-solving, civic participation, and the development of personal character and individual responsibility. DISCOVERING OUR HERITAGE is recognized by Alabama teachers for its effectiveness in demonstrating these multiple values of environmental education.

Possibly the greatest potential of this program is suggested by its subtitle, *A Community Collaborative Approach*. Through development of the DISCOVERING OUR HERITAGE Community Collaborative, schools can promote greater local understanding of

Acknowledgments

the active involvement of its officers and Board of Directors, AWF spearheaded a successful statewide initiative pulling together diverse interest groups and generating the necessary funding to complete DISCOVERING OUR HERITAGE.

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DISCOVERING OUR HERITAGE is the product of the caring commitment of many Alabamians, including the program's sponsors, participating school systems, and, most significantly, Alabama teachers.

DISCOVERING OUR HERITAGE is the culmination of thoughtful input from master teachers in a variety of school systems, urban and rural, across Alabama. The program was initiated in 1996 as an experimental project at Westwood Elementary School, Tuscaloosa County School System, in collaboration with the "Challenge 21" planning initiative. In the following years, under the leadership of System Superintendent, Dr. Joyce Sellers, the program was piloted in elementary schools throughout Tuscaloosa County. It was later adopted and expanded in the Hoover City Schools and Escambia County Schools. Since 1999, these three systems have continued to provide field testing for the program. Sincere thanks and admiration are extended for their efforts.

Special thanks are extended to retired Westwood Elementary principal, Dr. Joan Lowery, and retired Tuscaloosa County Schools Superintendent, Dr. Neil Hyche, for their support in making this educational program possible. Thanks are also due to the Alabama State Department of Education (ADE), State Superintendent Dr. Ed Richardson, ADE specialists Judy Cooper and Frank Heatherly, and social studies consultant Jane Crowe, for assistance in helping ensure that DISCOVERING OUR HERITAGE is fully consistent with the Alabama Course of Study. Likewise, thanks are due to the Alabama Cooperative Extension System, Director Steve Jones, and Community Resource Coordinator, Warren McGord, for assistance in providing teacher training facilities. DISCOVERING OUR HERITAGE is made available through the leadership of the Alabama Wildlife Federation (AWF). In 1995, AWF responded to the requests of Alabama teachers for development of a model environmental education program organized sequentially to support requirements of the Alabama Course of Study throughout the school year. With

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the contrary, flexibility and the inclusion of your own good ideas are important to DOH design.

You will note that DOH is organized largely around social studies. This is to give you the greatest flexibility in arranging situations for applied learning. Also, the subject of social studies affords a wide variety of learning opportunities suitable for underscoring an important DOH premise: a good education should provide students with a conservation ethic; responsible citizenship should include an informed commitment to environmental stewardship (see Appendix: Resources, Part III. Additional Materials for General Consideration for a list of readings, such as *A Sand County Almanac*, which include discussion of related conservation/environmental philosophy).

General Procedure

DISCOVERING OUR HERITAGE is organized on a flexible, repeating outline. Each Unit (six weeks) has a Key Question. This question, as much as any other factor, may be seen as the guiding idea for your activities. Likewise, each Unit has a Key Experience, generally recommended to be taken at the beginning of each unit. This is usually an out-of-class experience of some kind. Not to be lightly dismissed, the Key Experience gives the class a common basis of experience to discuss and write about. Importantly, it also helps to build class spirit and cohesiveness.

The class should invite at least one Community Visitor or Community Resource per week to present a program. If necessary, Key Experiences and the complementary Community Visitors and Resources can be switched as appropriate.

Additionally, we suggest that other visitors come to the classroom—parents, speakers, career representatives, etc.—until the class becomes used to visitors. It is important that standard hospitality procedures are established when dealing with guests—issuing invitations, providing escorts, and

Welcome to DISCOVERING OUR HERITAGE (DOH), Alabama's first sequentially-organized, content-integrated environmental program for grades K-6 (the available sixth grade option can be found in Appendix E in the *DOH Guidebook for Teachers and Administrators*). We hope you will find DOH useful and exciting. The program is designed to be a part of a broad support network that consists of you and your students, the whole-hearted support of your school and district administrators, and real, direct connections with your community. You should never feel that you are all alone in trying to implement this new way of approaching your yearly program. An important part of DOH is the Community Collaborative process (see Appendix D in the *DOH Guidebook*), during which your school formally invites members of your local community to participate in your program. This should dramatically increase the local resources and volunteers available to you.

DOH is carefully tied to the Alabama Course of Study (ACS) in social studies, science, language arts, and math. You may be reassured that in implementing DOH, you are covering legitimate, recognized subjects and are teaching required content.

At first, you might be slightly uneasy that DOH combines multiple subjects throughout each unit, but you should soon see how this integrated approach can be liberating to your program. By the same token, if you have favorite lessons that seem appropriate, a teachable moment, or an insight as to how to better teach your class, trust your instincts. DOH does not require that you slavishly follow an inflexible regimen. To

... flexibility
and the
inclusion of
good ideas are
what DOH is
all about.

unexpected and continuing distractions and various curriculum requirements that are difficult to integrate. This reality can pose limitations, but it should not rob us of the essential DOH idea, i.e., the intrigue of pondering our world and our place in it. Along the way and from time to time, we can expect to teach an old-fashioned math, grammar, or history lesson, and if life brings us a good teachable moment that is not "environmental," we should take it. DOH is meant to serve as a conceptual framework that allows the teacher freedom to pursue a good opportunity or idea as it occurs.

Preliminary Preparation

DOH is the product of many years of discussion and input from concerned educators, among whom there is agreement that this model program should "aim high" in expectations for students, teachers, and the community; thus, the extensive scope and regimen of the program. However, insofar as this program is oriented to overall educational improvement, it will be successful only if adjusted for proper fit and acceptance within each school. Therefore, to facilitate program adoption, DOH staff assistance is recommended for establishing the prescribed Community Collaborative (see Appendix D in the *DOH Guidebook*) and for conducting special teacher training. To arrange assistance contact: Wayne Strickland, DOH Outreach Coordinator, Alabama Wildlife Federation, P.O. Box 1109, Montgomery AL 36102; telephone (800) 822-WILD.

writing thank-you notes. Each child should rotate through these various duties so that everyone becomes proficient in these important skills.

IDEALLY—

1. *Every day*, every student would have:
 - a DOH lesson/activity (this lesson, whether science or social studies, would be followed by a related language activity),
 - an additional science or social studies lesson (often a spin-off of a DOH activity),
 - a math lesson, where possible supporting the other subjects,
 - physical education,
 - individual reading and writing time, and
 - a formal period to work in the journal

2. *Every week*, the class would have:

- a speaker to visit the class,
- at least one video presenting visual information,
- an out-of-school or outdoor experience,
- a library experience,
- a geography lesson,
- a computer lesson,
- a music and art lesson, and
- a series of small group meetings followed by a group project

3. *Every unit*, the class would have:

- a key experience,
- a keynote visitor, and
- a class project, to which each child would contribute

However, DOH recognizes that teaching occurs in the real world of the daily school routine, with

Fifth Grade Program Overview

history, particularly as it is central to the subject of social studies, is about who we are and why we are, where we have come from, and where we are headed. It is the vessel in which we make meaningful sense of science, art, music, and literature. This fifth-grade year of social studies is a primary opportunity to integrate multiple areas of required content through continued active exploration of the world around us. Moreover, this fifth-grade year of social studies is important in other, profound ways. The world of human societies today is increasingly complex. There are many new opportunities for cooperation among peoples, but there are also many new possibilities for conflict. Meanwhile, accelerating change continues to bring unprecedented environmental consequences to our Earth. Major challenges for humankind include the need for greater environmental understanding and the need for greater understanding among nations and peoples. Such progress for the future can begin with giving our children a greater understanding of our American heritage. Toward this aim, Fifth Grade Unit Overviews are developed to help interpret chronological history in the context of our nation's emerging cultural and national identity.

Unit 1

Key Question: What was our country like before settlement? Looking far back in time, initial questions include: How did the American landscape come to be? Who were the first human inhabitants? How did early cultures change over time? These questions are investigated at the outset of Unit 1 where we overview the period of prehistory as one vast unrecorded era, an era that ends with the arrival of European explorers. Our curiosity is then shifted to such questions as: What was America like when the Europeans arrived? How did these new people survive in the strange, unfamiliar setting of the new world? How successful were the first attempts at settlement? The period of European exploration is an era when Native Americans were still dominant

ACS Social Studies Yearly Theme: United States Studies: Beginnings to 1900

Yearly Overview

The ACS theme for fifth grade, “United States Studies,” reflects the intent that students should learn about the multiple dimensions of our nation’s development. However, there will likely be the inclination, among many students and teachers, to think of this theme in the traditional way, i.e., that the official subject for fifth grade is U.S. history. And, indeed, fifth grade does follow the chronological history of U.S. development, from prehistoric time to 1900. (Sixth grade covers U.S. history from 1900 to the present.) But, of course, it doesn’t matter how we label the year; what matters most is how we conduct the year, how we engage students in the study of material that, in many ways, represents a giant leap forward into substantial academic content. Earlier grades have focused on who we are as individuals, schools, community, and state. Fifth grade offers the opportunity to give greater focus to who we are as a nation.

Chronological history provides the loom upon which to weave important understandings about the United States, and to do so in context with the four cornerstone elements of the DOH program—the land, the people, interrelationships, and change. Based upon successful learning in previous grades, students are now ready to add significantly to their awareness that the present is a product of the past, that to fully understand the present we must understand history. Students are now ready to greatly expand upon their recognition that our nation is the product of a diverse natural and cultural history. In other words, fifth grade offers us the grand opportunity to instill in students a life-long excitement for “history” because history is actually the study of far more than names, dates, and events. The subject of

Important connections: The doctrines of freedom and independence that gave official birth to our nation were the products of independent-minded people embracing the bountiful lands and resources of America. The emergence of the democratic nation of the United States began a new era for America and was a profound event in the course of world history.

Unit IV

Key Question: How did the nation grow? Following the Declaration of Independence, the nation extended its new wings of freedom upon the winds of continued economic and social change. Early in this era, there was land and open space aplenty. The spirit of freedom combined with abundant natural resources to spawn new growth as freedom was dispersed across the land to find its different niche in each region. With this expansion, there was new adventure with explorations into unmapped territories of the country. But there were also new conflicts, as territorial and regional differences gave rise to disputes over matters of social, economic, and governmental control.

Important connections: America's expansion was made possible by the abundant natural resources of the native land. America's regional economies and related cultures were necessarily linked to regional geography and resources.

Unit V

Key Question: Why was there a Civil War? As a tenet of government, American freedom remained in its youth for much of the nineteenth century and, in many ways, at the whim of regional differences. As environments and economies varied from the urban east to the agrarian south to the untamed west, so, too, the social norms of freedom varied. In the Civil War, conflict between armies was but part of a larger dynamic, the ongoing American struggle to refine the meaning of freedom. Events associated with the Civil War period reveal the human capacity for moral strength, moral frailty, and moral incongruity.

Important connections: The Civil War can be understood in terms of several factors—social, economic, and political—that were related to early regional differences and influenced by the human and social natures of a youthful nation. American democracy was able to

across the land. However, as the early European colonies became established, Native Americans were forever displaced, marking the end of this era. In Unit I, students should begin to comprehend that the recorded history of America has progressed from era to era, each stage marked by changes to life and landscape, and by related conflicts with both human and environmental consequences.

Important connections: The native American landscape was uniquely rich and diverse in natural resources. The cultures of native peoples were greatly shaped through their interrelationships with the natural surroundings, which, in turn, were often affected by the activities of native cultures. Thousands of years of such native interrelationships underwent a new order of change with the arrival of Europeans.

Unit II

Key Question: How was America settled? Unit I concludes with the end of the era of America's dominance by native peoples; thus, a logical question for us is: What next? What led to the expansion of European settlements and the eventual emergence of a new nation? In Unit II, students are provided with opportunities to look at the early development of communities, economies, and philosophies affecting man and nature that gradually formed a new cultural identity and gave rise to the idea of American democracy.

Important connections: Early colonization, pioneering, and settlement periods represent a formative era in the nation's development, an era that would end with the Declaration of Independence and adoption of the U.S. Constitution.

Unit III

Key Question: How did the nation emerge? As the American colonies acquired an independent identity, their idea for a new government came into violent conflict with the old government of English rule. This conflict helped to crystallize a new concept of freedom as the basis of American democracy. The break with England and the establishment of a new nation was related to newly emerging ways of thinking about human nature and society. This new thinking was influenced, in part, by the tribal beliefs of Native Americans, and, in part, by the native American landscape.

progress as regional differences were orchestrated toward cooperation and consensus around common ideals of freedom. Major refinements to the idea of freedom came in the area of human equality.

Unit VI

Key Question: How did the nation expand westward? In Unit V, students see America apply a mid-course adjustment to how freedom was understood on the human front, only then to witness freedom's unchecked impact on the environmental front. With the dissipation of sectionalism, the nation more easily expanded the freedoms of a free enterprise economy. Rapidly, the industrial age was fueled by a growing population with growing needs. Armed with the doctrine of Manifest Destiny, Americans reached across the western frontier to the Pacific, whereupon many paused to look back on their unchecked mistreatment of the nation's natural heritage. The resulting national call for conservation, for the wise and ethical treatment of natural resources, brought American economic, social, and environmental practices to a critical juncture. The nation began to realize that the freedom to use our resources must be balanced with a sense of responsibility for protecting them.

Important connections: The emergence of industrial America was made possible by the abundance of native natural resources. The combination of American democracy and American industrial and technological advance brought major transitions in communication, economic development, and social organization. An era of American youthfulness was waning as the nation began to mature and to acquire a sense of coast-to-coast national identity.

DOH Kindergarten Key Experiences

Like the Key Questions, the Key Experiences are intended to stimulate genuine curiosity and guide students in active exploration and discovery. The examples of experiences/activities listed below represent stem ideas only. In selecting preferred Key Experiences, teachers should plan for maximum learning value by organizing these experiences/activities to ensure active, hands-on student involvement in observing, investigating, and/or problem-solving.

- Unit I** Visit a prehistoric site (Moundville, a fossil museum, etc.) or a local feature (historical, archaeological, etc.) related to pre-settlement history.
- Unit II** Visit a wildlife museum or special natural area (forestland, river, farmland) exemplary of a natural resource prominent in the settlement of America.
- Unit III** Visit an 18th-century site, such as Fort Toulouse (Wetumpka) or Fort Conde (Mobile).
- Unit IV** Visit a 19th-century site, such as Alabama Constitution Village (Huntsville), Old Cahawba Archaeological State Park (Selma), and Tannehill Historical State Park.
- Unit V** Visit Selma, Montgomery, Fort Morgan, or Gaines; Old Gainesville or other Civil War era sites.
- Unit VI** Visit late 19th-century Alabama sites—most old towns, Sloss Furnaces (Birmingham).

Understanding the Unit Plans

This Week's Topic and Focus Paragraph. Each week has a basic topic to guide the week's activities. The focus paragraph briefly explains the week's topic and suggests ways to approach it.

Correlations with Alabama Course of Study. The numbers in parentheses indicate the DOH-relevant Alabama Course of Study sections of the four subjects areas—social studies, science, language arts, and math. These are also shown in the matrices below.

Thought of the week. This is really for you, the teacher, although sometimes it may be appropriate for the children. You get only a little encouragement in this job; maybe you'll find a bit of inspiration here!

Community Visitors and Resources. These are our suggestions for appropriate visitors to the classroom. As the children become accustomed to visitors, visits will be less disruptive. Don't miss this opportunity to teach appropriate behavior and formal courtesies.

Activities and Materials. These are teacher-selected environmental activities from a variety of sources (see Appendix: Resources), presented to you as a starting point. Since many of you are as experienced as the members of the DOH team, we encourage you to search out appropriate favorite activities and materials of your own.

Unit Checkpoints. These activities are enumerated at the beginning of each unit, and it is important that the class try to accomplish them each week. Eventually, we would like every child to write in his/her journal, to write invitations and send thank-you notes, and to read quietly and aloud to others.

**Program Matrices linked
with Alabama Course of Study**
(Social Studies, Science, Language Arts, and Math)

The following matrices compare the requirements of the Alabama Department of Education's official Alabama Course of Study (ACS) with the Discovering Our Heritage (DOH) units. This will serve to guide and reassure teachers, parents, and administrators that the exciting activities of DOH more than meet the requirements of the ACS.

Grade 5 Social Studies Yearly Plan

Week	Unit I	Unit II	Unit III	Unit IV	Unit V	Unit VI
1	Natural environment of and early Jamestown settlements	4	Social factors in the American Revolution	Significant individuals	Activists and campaign issues	Westward expansion
2	Migration and settlement	5	Groups involved in the American Revolution	U.S. Constitution and the Bill of Rights	Causes of the Civil War	Natural environment and exploration
3	Culture of Native Americans	6-7	Government and law in colonial America	Political and social differences	War of 1812	Railroads
4	Age of Discovery	8	Social changes and trade routes	Declaration of Independence	Explorations—1750s–1800s	Exploration and Native Americans
5	Impact of Europeans on Native Americans	9	Emergence of American culture	American Independence	Technology changes	Spanish-American War
6	English settlements	10	African culture	Important people and events	Sectionalism and major struggles	Major changes in America—1870–1900
	What was our country like before settlement?	How was America settled?	How did the nation emerge?	How did the nation grow?	Why was there a Civil War?	How did the nation expand westward?

*The numbers in bold correspond to the current (2001) Alabama Course of Study for the respective grade and subject.

Grade 5 Science Yearly Plan

Week	Unit I	Unit II	Unit III	Unit IV	Unit V	Unit VI
1	Spheres of the Earth	Cells	Chemical changes	Ocean and the water cycle	The sun	Geologic features of the Earth
2	Populations	Cell life processes	Energy and energy transfer	Ocean features	Star patterns	Human activities and the ecosystem
3	Fossils	Tissues	Forms of energy	Ocean currents	The Solar System	Begin science-based project
4	Ecosystems	Organs	Forms of energy	Ocean composition	Seasons	Recycling
5	Impact of the environment on Native Americans	Organ systems	Gravity	Ocean populations	Moon and tides	Technology and products
6	Classification	Survival relationships	Simple machines	Ocean food chains and webs	Environmental relationships	Technology and products

*The numbers in bold correspond to the current (2001) Alabama Course of Study for the respective grade and subject.

Grade 5 Language Arts Yearly Plan

Week	1	2	3	4	5	6
Unit I	Write about the natural environment in 1600s & today 22-31	Read about early migrations 10, 16	Read about Native American colonial America 9-10, 16, 20	Read about the Age of Discovery 10, 14, 16	Write about how Native Americans depended on environment 22-31	Describe English interactions in North America 34-36
Unit II	Describe parts of a cell 22-31	Write about cell life processes 22-31	Read about energy consumption 22-31	Write about trade routes 22-31	Read about early American culture 9-10, 16, 20	Create skit of American and African cultures 9-10, 16, 20
Unit III	Dramatize events that caused American Revolution 34-36	Describe relationships of groups in the American Revolution 22-31	Write about sailing 22-31	Write about energy and exploration 22-31	Read about American independence 9-10, 16, 20	Write about early inventions 22-31
Unit IV	Research significant individuals 14, 21, 25	Write about ocean features 22-31	Write about effect of the Anaconda Plan 33-34	Relate geography and Civil War battles 21, 25	Research ocean technology 14-15, 21	Create weather program about hurricanes 34-36
Unit V	Research American activists 14, 21, 25	Debate causes of Civil War 13-15	Explain the effect of the Anaconda Plan 33-34	Relate geography and Civil War battles 21, 25	Write a point-of-view poem about Reconstruction 22-31	Dramatize cultural influences of the Civil War 34-36
Unit VI	Write about the frontier environment 22-31	Plan a trip by wagon 14, 21	Plan project 14, 21	Research Native American conservation efforts 14-15, 21	Research war technology advances 14-15, 21	Research industrial technology advances 14-15, 21
	How did the nation expand westward?	How did the nation grow?	How did the nation emerge?	How did the nation settle?	How was America settled?	How was our country like before settlement?

*The numbers in bold correspond to the current (2001) Alabama Course of Study for the respective grade and subject.

Grade 5 Math Yearly Plan

Week	1	2	3	4	5	6
Unit I	<p>What was our country like before settlement?</p> <p>How was America settled?</p> <p>Unit II</p>	<p>Calculate change in land use since 1600</p> <p>18, 22</p>	<p>Draw and measure migration routes</p> <p>21, 26, 43-45</p>	<p>Estimate amount of natural resources in 1600</p> <p>43-45</p>	<p>Draw and measure explorer routes</p> <p>21, 26, 43-45</p>	<p>Classify early settlers</p> <p>19, 26, 28</p>
Unit II	<p>How was America settled?</p> <p>Unit III</p>	<p>Calculate cell reproduction rate</p> <p>19</p>	<p>Calculate rate of temperature change</p> <p>19, 43-45</p>	<p>Draw & measure land area of colonial America</p> <p>21, 26, 43-45</p>	<p>Draw and measure trade routes</p> <p>21, 26, 43-45</p>	<p>Graph number of Africans by state</p> <p>43-45</p>
Unit III	<p>How did the nation emerge?</p> <p>Unit IV</p>	<p>Calculate rate of temperature change</p> <p>19, 43-45</p>	<p>Calculate area covered by oceans</p> <p>19, 22</p>	<p>Calculate energy consumption then and now</p> <p>19</p>	<p>Calculate energy conservation then and now</p> <p>19</p>	<p>Create timeline of scientists and inventions</p> <p>19, 43-45</p>
Unit IV	<p>How did the nation grow?</p> <p>Unit V</p>	<p>Calculate area covered by oceans</p> <p>19, 22</p>	<p>Record physical & chemical changes in making butter</p> <p>19</p>	<p>Record directions of ocean currents</p> <p>43-45</p>	<p>Graph sea water components</p> <p>43-45</p>	<p>Plan, time, & edit weather program</p> <p>43-49</p>
Unit V	<p>Why was there a Civil War?</p> <p>Unit VI</p>	<p>Calculate economic advantages & disadvantages for various modes of travel</p> <p>19</p>	<p>Calculate scale model of Solar System</p> <p>32</p>	<p>Calculate scale model of power then and now</p> <p>19</p>	<p>Graph casualties by battle</p> <p>43-45</p>	<p>Create scale model of a plantation</p> <p>25, 32</p>
Unit VI	<p>How did the nation expand westward?</p>	<p>Calculate $t = r/d$ for various modes of travel</p> <p>19</p>	<p>Calculate power then and now</p> <p>19</p>	<p>Calculate change in power of old weapons</p> <p>19</p>	<p>Calculate change in power of old weapons</p> <p>19</p>	<p>Estimate economic benefits from industrial technology</p> <p>19</p>

*The numbers in bold correspond to the current (2001) Alabama Course of Study for the respective grade and subject.

Unit 1

What was our country like before settlement?

Teacher's Notes (Use this page to write down your questions and good ideas for this Unit):

Unit 1 Week 1

Thought for the week
 Among scientists are collectors, classifiers, and compulsive tidiers-up; many are detectives by temperament and many are explorers; some are artists and others are poets. There are poet-scientists and philosopher-scientists and even a few mystics.

—SIR PETER MEDAWAR

Community Visitors and Resources
 Ranger to discuss the natural environment of North America

Activities and Materials

- *Alabama's Environmental Legacy...Grades 3-5*, "Sky Blue, Sunset Red"
- *Project Learning Tree*, "Air We Breathe," "Our Changing World"
- Video: *Geological Society of America*, "The Earth Has a History"
- Video: *Discovering Alabama*, "Coastal Alabama, Part II: Environmental Issues"
- *Project WFT*, "Just Passing Through," "Stream Sense"
- *Project WILD*, "My Kingdom for a Shelter"
- *Ranger Rick's NatureScope*, *Geology, the Active Earth*, "The Earth, Inside and Out"

Unit 1 Key Experience
 Visit a prehistoric site (Moundville, a fossil museum, etc.) related to pre-settlement history.

Unit Checkpoints

Journal time, quiet reading time, writing invitations and thank-you notes, and reading out loud to others.

This Week's Topic
 Natural environment of North America

Correlations with Alabama Course of Study:

Social Studies:
 Natural environment of North America (4)

Science:
 Spheres of the Earth (27)

Language Arts:
 Write about the natural environment in 1600s and today (22-31)

Math:
 Calculate change in land use since 1600 (18, 22)

Geography:
 Map reading (1)



Focus is on what happened up to 1600 beginning with the natural environment of North America—river systems, physical geography, and natural resources. Students should write about the natural environment and how it has changed since 1600. They should be able to calculate the changes in land use over the past 400 years by comparing various maps. In science, they should study the spheres of the Earth (hydro-sphere, lithosphere, atmosphere), how they are interrelated, and how and why they have changed in 400 years.

Unit 1 Key Question
 What was our country like before settlement?

Unit 1 Week 2



Focus is on migrations and prehistoric settlements in America. Students should draw and measure migration routes of people across America. They should read and write stories about the progression of culture of the prehistoric American people—hunters, hunter-gatherers, farmers. In science, relate populations of plants and animals in ecosystems to new populations caused by migrations.

This Week's Topic
Migration and settlement

Correlations with
Alabama Course of Study:
Social Studies:
Migration and settlement (5)

Science:
Populations (23)

Language Arts:
Read about early migrations (10, 16)

Math:
Draw and measure migration routes (21, 26, 43–45)

Geography:
Map reading (1)

- Activities and Materials*
- Begin timeline and continue through the year
 - *Project Learning Tree*, “Planet of Plenty,” “Charting Diversity,” “The Fallen Log”
 - *Ranger Rick’s NatureScope*, “Digging into Dinosaurs,” “It’s about Time”
 - *Project CATE*, “Rabbit’s Big Splash: Wetlands”
 - *Project WILD*, “How Many Bears Can Live in This Forest,” “Quick Frozen Critters,” “Muskox Maneuvers,” “Eco-Enrichers”
 - *Water Sourcebook*, “Coastal Conservation Scavenger Hunt”
 - Video: *Discovering Alabama*, “Southeast Alabama/Wiregrass Region”

Community Visitors and Resources
Anthropologist to explain reasons for migration and settlement

Thought for the week
If I live to be old enough I may sit down under some bus, the last lift in the utilitarian world, and feel thankful that intellect in its march has spared one vestige of the ancient forest for me to die by.
—THOMAS COLE

Unit 1 Week 3

Thought for the week

We are an intelligent species and the use of our intelligence quite properly gives us pleasure. In this respect the brain is like a muscle. When it is in use we feel very good. Understanding is joyous.

—CARL SAGAN

Community Visitors and Resources

Native American to speak on his/her culture

Activities and Materials

- Begin a chart comparing Native American tribes: food, housing, transportation, weapons, clothing, myths, traditions, etc.
- “Fossil and Rock Kit,” Alabama Museum of Natural History
- *Alabama’s Environmental Legacy... Grades 3–5*, “Down Home Dinosaurs”
- *Project Learning Tree*, “The Native Way,” “A Look at Lifestyles,” “Tepee Talk”
- *Project WET*, “The Rainstick,” “Water Celebration,” “Water Messages in Stone”
- *Project WILD*, “Tracks!,” “What’s for Dinner,” “Good Buddies”
- Video: Public Broadcasting Service (PBS), *The Native Americans*
- Video: *Discovering Alabama*, “Moundville”

This Week’s Topic

Culture of Native Americans

Correlations with

Alabama Course of Study:

Social Studies:

Culture of Native Americans

(6–7)

Science:

Fossils (18)

Language Arts:

Read about Native American culture (10, 16)

Math:

Estimate amount of natural resources in 1600 (43–45)

Geography:

Map reading (1)

Focus is on the cultures of Native Americans by geographic regions. Students should read about Native Americans and their governments, economies, religions, and their impact on the environment. They should estimate the amount of natural resources during prehistoric times and how that amount has changed over time. Relate fossil formations and how they tell the story of the Earth to methods used by Native Americans to tell their history.



Unit 1 Week 4



This Week's Topic
Age of Discovery

Correlations with
Alabama Course of Study:

Social Studies:
Age of Discovery (8)

Science:
Ecosystems (24)

Language Arts:
Read about the Age of Discovery
(10, 14, 16)

Math:
Draw and measure explorer routes
(21, 26, 43-45)

Geography:
Map reading (1)

Focus is on European exploration and early settlements in the Age of Discovery. Students should locate and measure the routes of early explorers and read stories about explorers. Relate the study of ecosystems with their specific requirements, plants, and animals to groups of early settlers and the environment they established in their settlements.

Thought for the week
But ask now the beasts, and they shall tell thee: Or speak to the earth, and it shall teach thee; and the fishes of the sea shall declare unto thee.

—Job 12:7-8

Community Visitors and Resources

Historian to discuss early explorers

Activities and Materials

- *Alabama's Environmental Legacy...Grades 3-5*, "In the Know," "No Salt, Please"
- *Project WILD*, "Urban Nature Search," "What Bear Goes Where?," "Habitat Rummy"
- *Project Learning Tree*, "Forest for the Trees," "Tree Factory," "In the Good Old Days"
- *Ranger Rick's NatureScope, Trees Are Terrific*, "Keying Out Trees"
- *Ranger Rick's NatureScope, Incredible Insects*, "Mystery Creatures"
- *Ranger Rick's NatureScope, Birds, Birds, Birds*, "The Incredible Egg"
- *Ranger Rick's NatureScope, Let's Hear It for Herps*, "Hot 'n' Cool Herps"
- Video: PBS, *The Private Lives of Plants*
- Video: *Discovering Alabama*, "Alabama Forests"

Unit 1 Week 5

Thought for the week
 The optimist proclaims that we live in the best of all possible worlds; and the pessimist fears this is true.

—JAMES BRANCH CABELL

Community Visitors and Resources

Genealogist to discuss the importance of knowing your heritage

- Activities and Materials*
- *Project WILD Aquatic*, “Edge of Home,” “Deadly Skies”
 - *Alabama’s Environmental Legacy...Grades 3–5*, “The Chain Gang,” “Web of Life”
 - *Video: Discovering Alabama*, “Native American Festival”
 - *Project Learning Tree*, “The Native Way,” “A Look at Lifestyles,” “Tepee Talk,” “Forest, Field, and Stream,” “Web of Life”
 - *Project WILD*, “Who Lives Here?,” “What’s Wild?,” “Animal Charades,” “What’s That, Habitat?,” “Make A Coat!”

This Week’s Topic
 Impact of Europeans on Native Americans

Correlations with Alabama Course of Study:
Social Studies:
 Impact of Europeans on Native Americans (9)

Science:
 Impact of the environment on Native Americans (25–26)

Language Arts:
 Write about how heredity affects us (22–31)

Math:
 Predict genotypes and phenotypes (49)

Geography:
 Map reading (1)

Focus is on the impact of

Europeans on Native Americans in terms of culture, conflict, and cooperation. Students

should describe how Native Americans depended on the

environment. They should write stories about what it would be

like to be a Native American before 1600. They should

graph the number of European settlements in different states.



Unit 1 Week 6



This Week's Topic
English settlements

Correlations with
Alabama Course of Study:
Social Studies:
English settlements (10)

Science:
Classification (20)

Language Arts:
Describe English interactions in
North America (34–36)

Math:
Classify early settlers (19, 26, 28)

Geography:
Map reading (1)

Thought for the week
There's nothing constant in the
universe, / All ebb and flow, and
every shape that's born / Bears in
its womb the seeds of change. /
The face of places, and their
forms decay; / And that is solid
earth, was once sea; / Seas in their
turn, retreating from the shore, /
Make solid land, what ocean was
before.

—Ovid

Community Visitors and
Resources

Urban planner to discuss
considerations made when
planning a city

Activities and Materials

- *Project Learning Tree*, "Name that Tree," "Then and Now," "The Forest People"
- *Project WILD Aquatic*, "Net Gain, Net Effect," "Fishy Who's Who"
- *Project WILD*, "Litter We Know"
- *Project CATE*, "Ribbit's Big Splash: Wetlands, Gulf"
- Video: *Discovering Alabama*, "Dauphin Island"

Focus is on the analysis of English settlements in North America in terms of success of settlements and interactions with different groups of people, e.g., Native Americans. Students should describe these interactions and analyze their importance and success. In science, introduce classification of plants and animals and relate it to classification of early settlers based on characteristics, locations, traditions, etc.

Unit II Week 1

Thought for the week
 Victory awaits those who have everything in order—people call this luck. Defeat awaits those who fail to take necessary precautions—this is known as bad luck.
 —ROALD AMUNDSEN

Community Visitors and Resources

Biologist to discuss cells

Activities and Materials

- *Project WILD Aquatic*, “Carrying Capacity”
- *Project Learning Tree*, “Tree Cookies,” “Sunlight and the Shades of Green”
- *Project WET*, “Aqua Bodies”
- *Water Sourcebook*, “Water Chemistry,” “Wells, A Deep Subject,” “Home, Wet Home”
- *Project WILD*, “Microtek Treasure Hunt,” “Urban Nature Search,” “The Thicket Game”

Unit Checkpoints

Journal time, quiet reading time, writing invitations and thank-you notes, and reading out loud to others.

This Week's Topic
 Jamestown and early settlements

Correlations with

Alabama Course of Study:

Social Studies:

Jamestown and early settlements (11, 13)

Science:

Cells (21–22)

Language Arts:

Describe the parts of a cell (22–31)

Math:

Create scale model of Jamestown (25, 32)

Geography:

Map reading (1)



Focus is on what happened from 1600 to 1763 beginning with Jamestown and early settlements. Students should create a scale model of Jamestown. In science, begin the study of cells and how they develop into organ systems. Relate cellular progression from single cells to complete organ systems to the first settlement of Jamestown and how from that one settlement America grew to its present size.

Unit II Key Question
 How was America settled?

Unit II Key Experience

Visit a wildlife museum or special natural area (forestland, river, farmland) exemplary of a natural resource prominent in the settlement of America.

Unit II Week 2



This Week's Topic
French and Indian War

Correlations with
Alabama Course of Study:
Social Studies:
French and Indian War (12)

Science:
Cell life processes (21–22)

Language Arts:
Write about cell life processes
(22–31)

Math:
Calculate cell reproduction rate
(19)

Geography:
Map reading (1)

Focus is on the causes and effects of the French and Indian War in terms of geography, politics, and culture. Students should write about cells, cell life processes, and their part in life processes. They should calculate the reproduction rate of various cells.

Thought for the week
To every thing there is a season,
and a time to every purpose under
heaven. A time to be born, and a
time to die; a time to plant, and a
time to pluck up that which is
planted.

—ECCLESIASTES 3:1–2

Community Visitors and
RESOURCES
Doctor to explain how healthy
cells function

- Activities and Materials*
- *Project WILD Aquatic*, “Micro
Odyssey”
 - *Water Sourcebook*, “Inside the
Red Tide”
 - *Alabama’s Environmental*
Legacy...Grades 3–5, “To
Transpire or Perspire...That is
the Question”
 - *Project CATE*, “Rabbit’s Big
Splash: H₂O in Your Body Fact”
 - *Project Learning Tree*, “Air
Plants”
 - *Project WET*, “Aqua Notes,”
“Let’s Even Things Out”

Unit II Week 3

Thought for the week

I expect to pass through this world but once. Any good thing therefore that I can do, or any kindness that I can show to any fellow creature, let me do it. Let me not defer or neglect it, for I shall not pass this way again.

—ANONYMOUS

Community Visitors and Resources

Biologist or doctor to discuss the importance of cell formation and tissues

- *Project WILD*, “Bearly Born,” “Lobster in Your Lunchbox”
- *Project Learning Tree*, “Democracy in Action,” “There Ought to be a Law”
- Video: *Discovering Alabama*, “Alabama’s Natural Diversity”

Activities and Materials

This Week’s Topic
Government and law in colonial America

Correlations with

Alabama Course of Study:

Social Studies:

Government and law in colonial America (14, 16)

Science:

Tissues (19)

Language Arts:

Read about colonial America (9–10, 16, 20)

Math:

Draw and measure land area of colonial America (21, 26, 43–45)

Geography:

Map reading (1)



Focus is on the government

and law in colonial America.

Students should read about

colonial America and write sto-

ries about what it would be like

to live in those times. They

should locate, draw, and meas-

ure the land used in colonial

America. They should explain

how the Colonists depended on

their environment. In science,

continue the study of groups

of cells that are called tissues.

Relate groups of cells working

together to form a tissue to

groups of people coming

together to accomplish a task.

Unit II Week 4



Focus is on social changes that led to the Protestant Reformation and how it affected colonial America in terms of trade routes and their impact on society. Students should draw and measure trade routes and write about what it would be like to travel the trade routes and what they would see in the natural environment. In science, relate how tissues combine to form organs to how people come together to form communities.

This Week's Topic
Social changes and trade routes

Correlations with Alabama Course of Study:
Social Studies:
Social changes and trade routes (15, 17)

Science:
Organs (19)

Language Arts:
Write about trade routes (22-31)

Math:
Draw and measure trade routes (21, 26, 43-45)

Geography:
Map reading (1)

Thought for the week
If a man does not keep pace with his companions, perhaps it is because he hears a different drummer. Let him step to the music which he hears, however measured or far away.
—HENRY DAVID THOREAU

Community Visitors and Resources

Doctor/nurse or biologist to explain function of organs; business owner to explain how imports and exports play an important role in their business

- Activities and Materials*
- *Project WILD*, "Ans on a Twig," "What's That Habitat?"
 - *Mailbox*, (Dec./Jan. 1997), "The Human Body"
 - *Project WILD Aquatic*, "Riparian Retreat"
 - *Project Learning Tree*, "Get in Touch with Trees"
 - *Project WET*, "Water Crossings"
 - *Water Sourcebook*, "Watery Words and Places"

Unit II Week 5

Thought for the week

When Daniel Boone goes by at night / The phantom deer arise / And all lost, wild America / Is burning in their eyes.

—STEPHEN VINCENT BENÉT

Community Visitors and Resources

Curator or historian to share history, customs, and traditions of your area

Activities and Materials

- *Mailbox*, (Dec./Jan. 1997), “The Human Body”
- *Project WET*, “The Life Box,” “No Bellyachers”
- *Project WILD*, “What Did Your Lunch Cost Wildlife?,” “What’s for Dinner?,” “Habitat Lap Sit”
- Video: *Discovering Alabama*, “Horse Pens 40”

This Week’s Topic
Emergence of American culture

Correlations with

Alabama Course of Study: Social Studies:
Emergence of American culture (18)

Science:

Organ systems (19)

Language Arts:

Read about early American culture (9–10, 16, 20)

Math:

Research and graph cost of organ transplants (19, 43–45)

Geography:

Map reading (1)

Focus is on the emergence of American culture during colonization in terms of daily life and religious influences. Students should read about American culture of the period and research various authors and religions of the time. In science, they should study about organ systems and research and graph the cost of organ transplants.



Unit II Week 6



This Week's Topic
African culture

Correlations with
Alabama Course of Study:
Social Studies: (19)
African culture

Science:
Survival relationships (25)

Language Arts:

Create skit of American and African cultures (9–10, 16, 20)

Math:

Graph number of Africans by state (43–45)

Geography:

Map reading (1)

Thought for the week
I am the inferior of any man
whose rights I trample under foot.
Men are not superior by reason of
accidents of race or color. They
are superior who have the best
heart—the best brain.
—ROBERT G. INGERSOLL

Community Visitors and

Resources

Civil rights activist to discuss

changes in the last forty years;

African to dress in his/her native
attire and discuss his/her culture

Activities and Materials

• *Project WILD Aquatic,*

“Deadly Waters,” “Turtle

Hurdles,” “Deadly Skies”

• *Alabama's Environmental*

Legacy...Grades 3–5, “The Web

of Life”

• *Project Learning Tree,* “Rain

Reasons,” “Soil Stories,” “The

Web of Life,” “Air We

Breathe,” “People of the

Forest,” “Tale of the Sun”

• *Project WET,* “Water Messages

in Stone,” “Water Address”

• *Project WILD,* “Environmental

Barometer,” “Ethni-Thinking”

• *Water Sourcebook,* “Estuary

Water”

Focus is on the culture of
African slaves in colonial
America. Students should
create a skit integrating
elements of African culture.
They should graph the number
of slaves by state. In science,
discuss survival relationships
and how people depend on
each other to survive.

Lined writing area with 20 horizontal lines.

Teacher's Notes (Use this page to write down your questions and good ideas for this Unit):

How did the nation emerge?

Unit III

Empty rectangular box for notes.

Unit III Week 1

Thought for the week
 Conservation is a state of
 harmony between men and land.

—ALDO LEOPOLD

*Community Visitors and
 Resources*

Historian to discuss events leading
 to the American Revolution

Activities and Materials

- *Alabama's Environmental Legacy...Grades 3-5, "Roll Out the Barrels," "Crystallizing the Problem"*

- *Project Learning Tree, "Living with Fire"*

- *Project WET, "Water Match," "What's the Solution," "People of the Bog," "Imagine," "Cold Cash in the Icebox"*

- *Video: Discovering Alabama, "Caves of Alabama," "Water Sourcebook," "Water Chemistry," "Hard or Soft"*

This Week's Topic
 Social factors in the American
 Revolution

*Correlations with
 Alabama Course of Study:
 Social Studies:*

Social factors in the American
 Revolution (20)

Science:

Chemical changes (10)

Language Arts:

Dramatize events that caused
 American Revolution (34-36)

Math:

Record physical and chemical
 changes in making butter (19)

Geography:

Map reading (1)



Focus is on gaining

*independence and the social
 factors leading up to the*

*American Revolution. Students
 should dramatize events*

leading up to the Revolution.

*In science, begin the study of
 chemical changes and energy
 by recording the physical and*

chemical changes in making

butter or in cooking various

foods. Relate the rate of chem-

ical changes of matter to

changes made by people

through revolution.

Unit III Key Question

How did the nation emerge?

Unit III Key Experience

*Visit an 18th-century site, such as Fort Toulouse
 (Moultrie) or Fort Conde (Mobile).*

Unit Checkpoints

Journal time, independent reading time and
 reading aloud, write invitations and send
 thank-you notes, nature walk.

Unit III Week 2

Thought for the week
 In all things that are purely social
 [blacks and whites] can be as sepa-
 rate as the fingers, yet one as the
 hand in all things essential mutual
 progress.

—BOOKER T. WASHINGTON

Community Visitors and Resources

Veteran to speak on the pride
 he/she has as an American

Activities and Materials

- *Project Learning Tree*, “Waste Watchers,” “Sounds Around”
- *Alabama’s Environmental Legacy... Grades 3–5*, “Some Like It Hot,” “Energy from Water—Free for the Taking”
- *Mailbox* (Dec./Jan. 1997), “The Revolutionary War”
- *Project WET*, “Energetic Water”
- Video: *Discovering Alabama*, “Long Leaf Pine”

This Week’s Topic
 Groups involved in the American
 Revolution

Correlations with

Alabama Course of Study:

Social Studies:

Groups involved in the American
 Revolution (21)

Science:

Energy and energy transfer
 (15–17)

Language Arts:

Describe relationships of groups
 in the American Revolution
 (22–31)

Math:

Calculate rate of temperature
 change (19, 43–45)

Geography:

Map reading (1)

Focus is on the different
 groups involved in the
 American Revolution and how
 they helped win independence
 from England. Students should
 describe the relationships
 between the groups and what
 each did. In science, students
 should be able to define energy
 and identify examples of
 energy transfer. They should
 calculate the rate of
 temperature change in various
 substances at various times.
 Relate energy transfer to the
 transfer of power from England
 to America as a result of the
 Revolution.



Unit III Week 3



This Week's Topic
Political and social differences

Correlations with

Alabama Course of Study:

Social Studies:

Political and social differences

(22)

Science:

Forms of energy (13–17)

Language Arts:

Write about energy consumption

(22–31)

Math:

Calculate energy consumption

then and now (19)

Geography:

Map reading (1)

Focus is on the political and social differences among the Patriots and Loyalists in America. Students should research different forms of energy. They should write about energy consumption and calculate the energy consumption of a family in the 1700s vs. now.

Thought for the week

I refuse to accept the idea that the "isness" of man's present nature makes him morally incapable of reaching up for the "oughtness" that forever confronts him.

—MARTIN LUTHER KING

Community Visitors and

Resources

Representative from Alabama

Power to discuss energy consumption and ways to conserve energy

Activities and Materials

• Carry out a school inventory:

observe the origin and design of environmental measures, energy consumption, and water and

waste of the school

• *Project Learning Tree*, "On the Move," "Air to Drive,"

"Resource-Go-Round"

• *Project WET*, "Water Meter"

• *Project WILD*, "Planting

Animals," "Changing

Attitudes," "Flip the Switch for

Wildlife"

• Video: *Discovering Alabama*,

"Long Leaf Ecosystem"

Unit III Week 4



This Week's Topic
Declaration of Independence

Correlations with
Alabama Course of Study:

Social Studies:

Declaration of Independence (23)

Science:

Forms of energy (13–17)

Language Arts:

Write about energy conservation

(22–31)

Math:

Calculate energy conservation

then and now (19)

Geography:

Map reading (1)

Focus is on the Declaration of Independence and its major points. Students should continue with their study of different forms of energy and research energy conservation. They should write about how to conserve energy and calculate the energy conservation of a family in the 1700s vs. now.

Thought for the week

We hold these truths to be self-evident; that all men are created equal; that they are endowed by their creator with certain unalienable rights; that among these are life, liberty, and the pursuit of happiness....

—THOMAS JEFFERSON,
DECLARATION OF INDEPENDENCE

Community Visitors and Resources

Representative from the power or gas company to discuss the importance of conserving energy

Activities and Materials

- *Project WILD*, “Flip the Switch for Wildlife”
- *Project Learning Tree*, “Waste Watchers,” “Every Drop Counts”
- *Project WET*, “Is There Water On Zork?,” “Money Down the Drain”
- *Water Sourcebook*, “Waste Not, Want Not,” “Water’s Journey,” “Water Goes Around and Comes Around”

Unit III Week 5



Focus is on the importance of writings related to American independence and how they affected the people. Students should read stories about the struggle for independence. They should research and graph population by state. In science, they should study gravity and its effects on matter.

This Week's Topic
American Independence writings

Correlations with
Alabama Course of Study:
Social Studies:
American Independence writings (24)

Science:

Gravity (11)

Language Arts:

Read about American Independence (9–10, 16, 20)

Math:

Graph population by state (43, 44)

Geography:

Map reading (1)

Thought for the week

From the mountains to the prairies, / To the oceans white with foam, / God bless America, / My home sweet home!

—IRVING BERLIN

Community Visitors and Resources

Local newspaper editor to share what it is like to write about and share ideas and opinions with the public

Activities and Materials

- *Project WILD*, “Grasshopper Gravity”
- Video: *Discovering Alabama*, “Locust Fork River”
- *Project Learning Tree*, “A Look at Lifestyles,” “Our Changing World”

Unit III Week 6



Focus is on the important people and events of the American Revolution and the contributions/significance of each. Students should study simple machines and how they work. They should research inventions during this time and write about these inventions and how they made life easier. They should create a timeline of scientists, inventions, and discoveries.

This Week's Topic
Important people and events

Correlations with Alabama Course of Study: Social Studies:
Important people and events (25)

Science:
Simple machines (12)

Language Arts:
Write about early inventions (22-31)

Math:
Create timeline of scientists and inventions (19, 43-45)

Geography:
Map reading (1)

Thought for the week
Go play with the towns you have built of blocks, / The towns where you would have bound me! / I sleep in my earth like a tired fox, / And my buffalo have found me.

—STEPHEN VINCENT BENÉT

Community Visitors and Resources
Mayor or city council member to discuss his/her role in local politics

- Activities and Materials*
- *Water Sourcebook*, "Shedding Light on Watersheds"
 - Video: *Discovering Alabama*, "Wildlife History"
 - *Project WILD*, "Saturday Morning Wildlife Watching"

Teacher's Notes (Use this page to write down your questions and good ideas for this Unit):

How did the nation grow?

Unit IV

Unit IV Week 1

Thought for the week
I have fallen in love with American names, / The sharp names that never get fat, / The snakeskin titles of mining claims, / The plumed war bonnet of Medicine Hat, / Tucson and Deadwood and Lost Mule Flat.

—STEPHEN VINCENT BENNET

Community Visitors and Resources
Meteorologist to explain the importance of the water cycle to weather

- Activities and Materials*
- *Project WILD Aquatic*, “Water Wings,” “How Wet is Our Planet?”
 - *Water Sourcebook*, “Estuary Water,” “Shedding Light on Watersheds,” “Water Goes Around and Comes Around,” “Water Works,” “Returning Raindrop,” “Wells, A Deep Subject,” “By the Sea,” “Porosity & Permeability: Down and Dirty”
 - Video: *Discovering Alabama*, “Cahaba River Watershed”
 - *Project WET*, “Water Models,” “Thirsty Plants,” “The Incredible Journey”

This Week’s Topic
Significant individuals

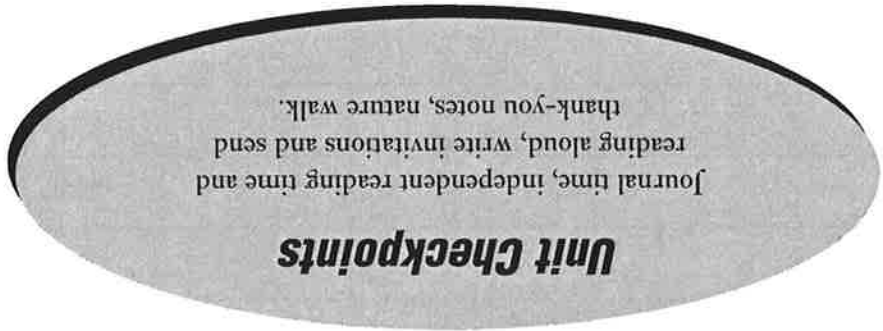
Correlations with Alabama Course of Study:
Social Studies:
Significant individuals (26)

Science:
Ocean and the water cycle (28, 30)

Language Arts:
Research significant individuals (14, 21, 25)

Math:
Calculate amount of rain falling on school (19)

Geography:
Map reading (1)



Focus is on the contributions of significant individuals to the establishment of the new United States of America. Students should research these individuals and report to class. In science, begin the study of oceans and the water cycle. Students should calculate the amount of rain that falls on the school during a rainstorm.



Unit IV Key Question
How did the nation grow?

Unit IV Key Experience
Visit a 19th-century site, such as Alabama Constitution Village (Huntsville), Old Cahawba Archaeological State Park (Selma), and Tannehill Historical State Park.

Unit IV Week 2

Thought for the week
 America is a tune. It must be sung
 together.

—GERALD STANLEY LEE

Community Visitors and Resources

Judge to identify the rights of all
 citizens

Activities and Materials

- *Alabama's Environmental Legacy...Grades 3-5*, "What's the Point?"
- *Water Sourcebook*, "Down in the Ocean Dumps"
- *Project WILD Aquatic*, "Fish Who's Who," "Aquatic Times"
- *Video: Discovering Alabama*, "Sipsey River Swamp"

This Week's Topic

U.S. Constitution and the Bill of Rights

Correlations with Alabama Course of Study:

Social Studies:
 U.S. Constitution and the Bill of Rights (27-29, 31)

Science:
 Ocean features (24, 28)

Language Arts:
 Write about ocean features (22-31)

Math:
 Calculate area covered by oceans (19, 22)

Geography:
 Map reading (1)



Focus is on the early documents that helped shape the country and what each contained. Students should identify and write about various ocean features. Using maps, they should calculate the area on Earth covered by oceans.

Unit IV Week 3

Thought for the week
 Keep your face to the sunshine
 and you cannot see the shadows.

—HELEN KELLER

Community Visitors and Resources

Historian to share what life was like in the early 19th century

Activities and Materials

- *Project Learning Tree*, “Have Seeds, Will Travel!”
- *Project WILD*, “Let’s Go Fly a Kite!”
- *Water Sourcebook*, “Water All Over the World”
- Video: *Discovering Alabama*, “Fort Toulouse/Jackson”

This Week’s Topic War of 1812

Correlations with

Alabama Course of Study: Social Studies:
 War of 1812 (32, 33)

Science:

Ocean currents (28)

Language Arts:

Write about sailing (22–31)

Math:

Record directions of ocean currents (43–45)

Geography:

Map reading (1)



Focus is on the impact of the War of 1812 on American

culture and the environment.

Students should study ocean

currents and their directions

around North America. They

should write stories about sail-

ing and what it would be like to

be a sailor during the 1800s.

Unit IV Week 4



Focus is on the exploration of the frontier and its significant explorers. Student should locate exploration routes across America and explain how geography played an important part in the routes explorers took. In science, students should study the composition of sea water and graph the percentages of each component.

This Week's Topic
Explorations—1750s–1800s

Correlations with Alabama Course of Study:
Social Studies:
Explorations—1750s–1800s (34–36)

Science:

Ocean composition (28)

Language Arts:

Relate geography and exploration (21, 25)

Math:

Graph sea water components (43–45)

Geography:

Map reading (1)

Thought for the week
Men go abroad to wonder at the heights of mountains, at the huge waves of the sea, at the long courses of the rivers, at the vast compass of the ocean, at the circular motions of the stars, and they pass by themselves without wondering.

—ST. AUGUSTINE

Community Visitors and Resources

Forester to discuss the vast forests of Alabama

- Activities and Materials*
- *Project WILD*, “When a Whale is Right”
 - *Water Sourcebook*, “Water Words and Places”
 - Video: *Discovering Alabama*, “Mobile-Tensaw Delta”
 - *Project WET*, “Piece it Together”

Unit IV Week 5



This Week's Topic
Technology changes

Correlations with
Alabama Course of Study:

Social Studies:
Technology changes (37)

Science:

Ocean populations (24, 26, 28)

Language Arts:

Research ocean technology (14-15, 21)

Math:

Calculate area covered by fishing nets (19, 22)

Geography:

Map reading (1)

Focus is on the impact of technological changes on life in America. Students should research inventions, construction, and machinery. In ocean studies, focus on ocean populations in different regions. Research ocean technology and how it helps fishing today vs. fishing during the 1800s. Calculate the area covered by fishing nets today vs. in the 1800s.

Thought for the week

I am sure it is a great mistake always to know enough to go in when it rains. One may keep snug and dry by such knowledge, but one misses a world of loveliness.

—ADELINE KNAPP

Community Visitors and Resources

Commercial fisherman to explain how important a weather forecast is to his way of living; meteorologist to discuss ways of weather prediction in the past

Activities and Materials

- *Alabama's Environmental Legacy...Grades 3-5, "How Strong Are Your Mussels?" Project WET, "Salt Water Players"*
- *Water Sourcebook, "Aquifer Adventure"*
- *Project WILD Aquatic, "Net Gain, Net Effect?"*

Unit IV Week 6

Thought for the week
 The three great elemental sounds
 in nature are the sound of rain,
 the sound of wind in a primeval
 wood, and the sound of outer
 ocean on a beach.

—HENRY BESTON

Community Visitors and Resources

Historian to discuss the roles and
 conflicts of states in their early
 development

Activities and Materials

- *Water Sourcebook*, “Get the Salt Out,” “Inside the Red Tide”
- *Project WILD Aquatic*, “Marsh Munchers,” “Whale of a Tale”
- Video: *Discovering Alabama*, “Coastal Alabama, Part I: Natural Diversity”
- *Project Learning Tree*, “Pollution Search,” “We Can Work It Out”
- *Project WET*, “Piece It Together,” “Raining Cats and Dogs”

This Week’s Topic

Sectionalism and major struggles

Correlations with

Alabama Course of Study:

Social Studies:

Sectionalism and major struggles (38–39)

Science:

Ocean food chains and webs (24, 26, 28)

Language Arts:

Create weather program about hurricanes (34–36)

Math:

Plan, time, and edit weather program (43–49)

Geography:

Map reading (1)

Focus is on sectionalism in America during the first half of the nineteenth century and the major struggles within the nation. Students should study about ocean food chains and webs, and their complexities. They should plan, write, and perform a weather program about hurricanes and how they are related to oceans.



Why was there a Civil War?

Unit V



Teacher's Notes (Use this page to write down your questions and good ideas for this Unit):

Unit V Week 1

Thought for the week
 Being American is not a matter of birth. We must practice it every day, lest we become something else.

—MALCOLM WALLO

Community Visitors and Resources

Environmentalist to share the conflicts encountered when presenting issues to the public

Activities and Materials

- *Project Learning Tree*, "Tale of the Sun," "Sunlight and Shades of Green"
- *Alabama's Environmental Legacy...Grades 3-5*, "Transpire or Perspire—That is the Question"
- Video: *Discovering Alabama*, "Sipsey Wilderness"
- *Project WET*, "What's Happening?"
- *Project WILD*, "Checks and Balances"
- *Water Sourcebook*, "To Whom It May Concern," "Waste Not, Want Not," "Whose Water is It?"

This Week's Topic
 Activists and campaign issues

Correlations with

Alabama Course of Study:

Social Studies:

Activists & campaign issues (40-41)

Science:

The sun (14, 30, 33)

Language Arts:

Research American activists (14, 21, 25)

Math:

Graph temperature during the

day (43-45)

Geography:

Map reading (1)



Focus is on the Civil War and Reconstruction. Discuss how the campaign issues and results of the election of 1860 affected American society. In science, begin the study of the Solar System and its components beginning with the sun. Students should investigate temperatures by recording and graphing temperatures during the day. Relate the study of the sun and its influence over all factors on the Earth to the effects activists had on people prior to the Civil War (they fueled sentiment and influenced decisions).

Unit Checkpoints

Journal time, independent reading time and reading aloud, write invitations and send thank-you notes, nature walk.

Unit V Key Question
 Why was there a Civil War?

Unit V Key Experience

Visit Selma, Montgomery, Fort Morgan, or Gaines; Old Gainesville or other Civil War era sites.

Unit V Week 2

Thought for the week
 The function of freedom is to free
 somebody else.

—TONI MORRISON

Community Visitors and Resources

Veteran to speak on the sacrifices
 made during war

Activities and Materials

- *Alabama's Environmental Legacy...Grades 3-5, "Boning Up on Biomes"*
- *Ranger Rick's NatureScope, Astronomy Adventures, "Whirling and Twirling"*
- Video set: *Time-Life, The Civil War*
- Video: *Discovering Alabama, "Little River Canyon"*

This Week's Topic Causes of the Civil War

Correlations with Alabama Course of Study: Social Studies: Causes of the Civil War (42)

Science: Star patterns (33)

Language Arts: Debate causes of Civil War (13-15)

Math: Calculate economic advantages and disadvantages for North and South (19)

Geography: Map reading (1)

Focus is on the causes of the Civil War from both Southern and Northern points of view. Students should calculate the economic advantages and disadvantages for the South and the North. They should debate the causes of the Civil War in skits or dramatic presentations. In science, they should study star patterns and locations in the sky.



Unit V Week 3

Thought for the week

The sun, with all those planets revolving around it and dependent on it, can still ripen a bunch of grapes as if it had nothing else in the universe to do.

—GALILEO GALILEI

Community Visitors and

Resources

Astronomer to explain the viewing of celestial objects with and without a telescope

Activities and Materials

- *Project Learning Tree*, “Field, Forest, and Stream,” “Air to Drive”
- *Project WILD*, “Watch on Wetlands”
- Video: *Discovering Alabama*, “Wetumpka Impact Crater”
- *Ranger Rick’s NatureScope*, “Astronomy Adventures,” “A Time Line through Space”
- Video set: PBS, *Cosmos*

This Week’s Topic

Anaconda Plan

Correlations with

Alabama Course of Study:

Social Studies:

Anaconda Plan (43)

Science:

The Solar System (32–34)

Language Arts:

Explain the effects of the

Anaconda Plan (33–34)

Math:

Create scale model of Solar

System (32)

Geography:

Map reading (1)

Focus is on the Anaconda Plan and its social and economic implications on the South. Students should explain the effect of the plan and write about its results. In science, students should study about the Solar System and its members. They should research individual planets and make a model of the Solar System.



Unit V Week 4

Thought for the week
 Four score and seven years ago
 our fathers brought forth on this
 continent, a new nation, conceived
 in Liberty, and dedicated to the
 proposition that all men are
 created equal.

—ABRAHAM LINCOLN,
 GETTYSBURG ADDRESS

Community Visitors and Resources

Historian or museum curator to
 explain significant battles of the
 Civil War

- *Activities and Materials*
Project WILD, “Stormy
 Weather”
- *Project Learning Tree*, “Signs
 of Fall,” “Tales of the Sun,”
 “How Plants Grow”
- *Project WILD Aquatic*,
 “Migration Headache”
- Video: *Discovering Alabama*,
 “Fort Morgan”
- *Project WET*, “A House of
 Seasons”
- *Ranger Rick’s NatureScope*,
Trees Are Terrific!, “Hidden
 Colors”

This Week’s Topic
 Significant features of the Civil
 War

Correlations with Alabama Course of Study:

Social Studies:

Significant features of the Civil
 War (44)

Science:

Seasons (30)

Language Arts:

Relate geography and Civil War
 battles (21, 25)

Math:

Graph casualties by battle (43–45)

Geography:

Map reading (1)

Focus is on the significant fea-
 tures of the Civil War including
 battles and leaders. Students
 should research various battles
 and how their outcome
 affected the war. Students
 should relate geographical fea-
 tures to Civil War battles and
 how they helped or hindered
 them. In science, students
 should study the seasons and
 their effects on life on Earth in
 terms of temperature, weather,
 farming, etc. They should
 study the effects different times
 of the year had on soldiers
 fighting in the Civil War.



Unit V Week 5

Thought for the week
 [The Civil War] created in this country what had never existed before—a national consciousness. It was not the salvation of the Union; it was the rebirth of the Union.

—WOODROW WILSON

Community Visitors and

Resources

Fisherman to explain how the changes in tide affect fishing conditions

Activities and Materials

- *Project Learning Tree*, “Living with Fire”
- *Ranger Rick’s NatureScope*, “Diving into Oceans,” “Saltwater Wonders”
- *Ranger Rick’s NatureScope*, “Astronomy Adventures,” “Moon Madness,” “Crazy about Craters”
- *Water Sourcebook*, “A Salt Water-y World”
- Video: *Discovering Alabama*, “Mobile River Basin”

This Week’s Topic

Correlations with Alabama Course of Study:

Social Studies:

Reconstruction (45)

Science:

Moon and tides (29)

Language Arts:

Write a point of view poem about Reconstruction (22–31)

Math:

Chart moon phases and tides

(19, 43–45)

Geography:

Map reading (1)

Focus is on the social, political, and economic aspects of Reconstruction and their effects on the Southern way of life. They should write a poem about Reconstruction from the point of view of a Southerner and a Northerner. In science, students should study the moon and tides. They should chart the moon phases and if they live near the Gulf, chart the tides over a period of time.



Unit V Week 6

Thought for the week
 The survival of our wildlife is a matter of grave concern to all of us in Africa. These wild creatures amid the wild places they inhabit are not only important as a source of wonder and inspiration but are an integral part of our natural resources and of our future livelihood and well-being.

—JULIUS K. NYERERE

Community Visitors and Resources

Historian or curator to explain changes after the Civil War

- Activities and Materials*
- *Project WILD Aquatic*, “To Dam or Not to Dam”
 - *Videos: Discovering Alabama*, “Red-cockaded Woodpecker,” “Oakmulgee Division/Talladega National Forest,” “A Walk in the Woods”
 - *Project Learning Tree*, “Dynamic Duos”
 - *Project WET*, “Life in the Fast Lane,” “Water Address”
 - *Project WILD*, “Here Today, Gone Tomorrow”
 - *Water Sourcebook*, “Living in Water”

This Week's Topic

Cultural influences of the Civil War

Correlations with

Alabama Course of Study:
Social Studies:
 Cultural influences of the Civil War (46)

Science:

Environmental relationships (23)

Language Arts:

Dramatize cultural influences of the Civil War (34–36)

Math:

Create scale model of a plantation (25, 32)

Geography:

Map reading (1)

Focus is on the lasting cultural influences of the Civil War and Reconstruction and how they affected people and their lives. Students should research literature, architecture, songs, food, and social structure of this time period. In science, students should investigate environmental relationships. They should create a scale model of a typical plantation and explain what life was like. They should research land use prior to the Civil War and what happened to it as a result of the fighting and destruction.



Unit VI Week 1



Unit VI Key Question

How did the nations expand westward?

Focus is on the westward expansion. Students should research economic, geographic, political, and social/cultural reasons for the expansion, as well as identify major groups and individuals involved. Students should identify various geological features of the Earth, describe how they affected the westward expansion, as well as write about the frontier environment and the changes it has gone through. Students should draw and measure frontier routes across America.

This Week's Topic
Westward expansion

Correlations with Alabama Course of Study:
Social Studies: Westward expansion (47, 49–50)

Science:
Geologic features of the Earth (27–31)

Language Arts:
Write about the frontier environment (22–31)

Math:
Draw and measure frontier routes (21, 26, 43–45)

Geography:
Map reading (1)

Thought for the week
This land is your land, this land is my land, / From California to the New York island, / From the red-wood forest to the Gulf Stream waters, / This land was made for you and me.
—WOODROW "WOODY" CUTHRIE

Community Visitors and Resources

Geologist to discuss the geologic features of our region

Activities and Materials

- *Project WET*, “Branching Out”, “Geyser Guts,” “The Great Stony Book”
- Video: Geological Society of America, *The Earth Has a History*
- Video set: Time-Life, *The West*

Unit Checkpoints

Journal time, independent reading time and reading aloud, write invitations and send thank-you notes, nature walk.

Unit VI Key Experience

Visit late 19th-century Alabama sites—most old towns, Sloss Furnaces (Birmingham).

Unit VI Week 2

Thought for the week
 This is the forest primal. The
 murmuring pines and the
 hemlocks... / Stand like Druids
 of old.

—HENRY WADSWORTH LONGFELLOW

Community Visitors and Resources

Historian to show the routes the
 explorers used to go west

Activities and Materials

- *Alabama's Environmental Legacy...Grades 3-5, "Do You Get my Point? Point and Nonpoint Source Pollution"*
- *Project Learning Tree, "Poet-Tree," "The Forest of S.T. Shrew"*
- *Project WET, "Water Concentration," "Water Crossings," "Sum of the Parts," "A-maze-ing Water"*
- *Project WILD, "Shrinking Habitat"*
- *Video: Discovering Alabama, "Chacha Mountain/Talladega National Forest"*

This Week's Topic

Natural environment and exploration

Correlations with

Alabama Course of Study:

Social Studies:

Natural environment and exploration (48)

Science:

Human activities and the ecosystem (23-25)

Language Arts:

Plan a trip by wagon (14, 21)

Math:

Calculate $t = r/d$ for various modes of travel (19)

Geography:

Map reading (1)



Focus is on the interaction of

humans with the natural

environment, which occurred

during the exploration and set-

tlement of the American

frontier. Students should be

able to identify the hazards of

and various methods of travel.

Students should plan a trip by

wagon across America and cal-

culate the amount of time and

speed of that mode of travel. In

science, students should relate

human activities to the effect

on the frontier ecosystem.

Unit VI Week 3

Thought for the week

If the human brain were so simple that we could understand it, we would be so simple that we couldn't.

—EMERSON M. PUGH

Community Visitors and Resources

Biologist or medical researcher to explain how cures for diseases are discovered

Activities and Materials

- *Project Learning Tree*, “Improve Your Place,” “On the Move”
- *Project WILD*, “Improving Wildlife Habitat in the Community”
- Video: *Discovering Alabama*, “Village Creek”

This Week's Topic

Railroads

Correlations with

Alabama Course of Study:

Social Studies:

Railroads (51)

Science:

Begin science-based project

(1–9)

Language Arts:

Plan project (14, 21)

Math:

Calculate power then and now

(19)

Geography:

Map reading (1)



Focus is on the impact of the

railroads on the development

of the West. Students should

identify political, economic,

and social/cultural advantages

and disadvantages of the

railroad. Students should

calculate the power available to

Native Americans then vs. the

power of available to us now.

They should discuss how

building a railroad changed the

surrounding environment. In

science, students should begin

to plan a science-based project

related to some aspect of the

local environment.

Unit VI Week 4



Focus is on the impact of westward expansion on Native American culture. Students should be able to identify how it changed Native Americans' ways of life, as well as the major battles fought with Native Americans. Student should research Native American conservation efforts then and now. In science, they should study the kinds of materials that can be recycled and research the monetary benefits of recycling each of those items.

This Week's Topic
Exploration and Native Americans

Correlations with
Alabama Course of Study:

Social Studies:

Exploration and Native Americans

(52)

Science:

Recycling (9)

Language Arts:

Research Native American

conservation efforts (14–15, 21)

Math:

Research monetary benefits of

recycling (47)

Geography:

Map reading (1)

Thought for the week
In wilderness is the preservation of the world.

—HENRY DAVID THOREAU

Community Visitors and

Resources

Environmentalist or local waste

management representative to discuss the importance of recycling

Activities and Materials

• *Project Learning Tree*, “Every Tree for Itself,” “Tree

Treasures,” “Talking Trash,

Not,” “Improve Your Place,”

“Resource-Go-Round,”

“Reduce, Reuse, Recycle,”

“Make Your Own Paper,” “A

Look at Aluminum”

• *Project WILD*, “Wildlife

Research”

• Videos: *Discovering Alabama*,

“Black Warrior River,” “Village

Creek”

Unit VI Week 5



Focus is on the causes, heroes, and consequences of the Spanish-American War. Students should research the types of weapons used in the Spanish-American War and compare those to war technology of the current times. They should calculate the power of old weapons vs. new weapons.

This Week's Topic
Spanish-American War

Correlations with
Alabama Course of Study:
Social Studies:
Spanish-American War (53)

Science:
Technology and products (9)

Language Arts:
Research war technology advances (14-15, 21)

Math:
Calculate change in power of old weapons (19)

Geography:
Map reading (1)

Thought for the week
The American dream is not over. America is an adventure.

—THEODORE WHITE

Community Visitors and Resources

Business owner to explain how technology is used in his/her business

Activities and Materials

- *Alabama's Environmental Legacy...Grades 3-5*, "Start Shedding the News," "How You Gonna Keep It Down on the Farm"
- *Project Learning Tree*, "Paper Civilizations," "A Peek at Packaging"
- *Project WET*, "Reaching Your Limits"
- *Video: Discovering Alabama*, "Tannehill Historical State Park"

Unit VI Week 6



Focus is on the major changes in America from 1870 to 1900. These changes include industrialization, organization, communication, and technology. Students should research typical products used during this time and how technology has improved these products. They should research industrial technology advances and estimate the economic benefits from increased efficiency and sophistication of technology.

This Week's Topic
Major changes in America—1870-1900

Correlations with
Alabama Course of Study:
Social Studies:
Major changes in America—1870-1900 (54)

Science:
Technology and products (9)

Language Arts:
Research industrial technology advances (14-15, 21)

Math:
Estimate economic benefits from industrial technology (19)

Geography:
Map reading (1)

Thought for the week
'Tis the gift to be simple, 'Tis the gift to be free, 'Tis the gift to come down, Where we ought to be.

—JOSEPH BRACKETT

Community Visitors and Resources
Urban planner to share how technology is incorporated into city planning

- Activities and Materials*
- *Project Learning Tree*, "Pass the Plants, Please," "Three Cheers for Trees," "Forest Consequences," "Loving It Too Much," "Then and Now," "Our Changing World," "Did You Notice?," "Resource-Go-Round"
 - *Project WET*, "Water Concentration," "Wish Book," "Cold Cash in the Icebox"
 - *Project WILD*, "To Zone or Not to Zone," "Deadly Links"
 - *Water Sourcebook*, "Goin' with the Flow"

Appendix: Resources

Guides. AMNH, 1985—
Discovering Alabama
 Alabama Museum of Natural History
 University of Alabama
 Box 870340
 Tuscaloosa AL 35487-0340
 (205) 348-2039

*Project Learning Tree: Environmental Education
 Pre K-8 Activity Guide*. 3d edition. American
 Forest Foundation, 1995.
 Project Learning Tree
 Alabama Forestry Association
 555 Alabama Street
 Montgomery AL 36104

Project WET: Curriculum and Activity Guide.
 The Watercourse; Western Regional Environmental
 Education Council, 1995.
 Project WILD

Alabama Department of Conservation &
 Natural Resources
 64 N. Union Street
 Montgomery AL 36130
 (334) 242-3623

Project WILD Activity Guide. 2d edition.
 Western Regional Environmental Education
 Council, 1992.
 Project WILD
 Alabama Department of Conservation &
 Natural Resources
 64 N. Union Street
 Montgomery AL 36130
 (334) 242-3623

Project WILD Aquatic Education Activity Guide.
 2d edition. Western Regional Environmental
 Education Council, 1992.
 Project WILD
 Alabama Department of Conservation &
 Natural Resources
 64 N. Union Street
 Montgomery AL 36130
 (334) 242-3623

Part I. Primary Activity Resources

Being a flexible program, DOH can accommodate a variety of activity resources. However, teachers are strongly encouraged to make sure that all primary resources are consistent with recognized standards for quality and effectiveness. If you have primary resources in mind other than those listed below, contact: Wayne Strickland c/o AWF or Dr. Doug Phillips c/o AMNH for assistance in determining their consistency with national standards.

The following resources are incorporated as primary materials for DOH because:

- these materials are widely accepted and highly rated by master teachers and environmental educators,
- these materials are consistent with nationally recommended guidelines for accuracy, balance, and effectiveness in helping teachers include environmental education as a regular component of instruction,
- these materials have been specifically correlated with academic requirements of the Alabama Course of Study, and
- parent organizations of these materials have worked closely in the development of DOH and are committed to effective environmental education in support of overall educational improvement and student success—personally, civically, and academically.

Alabama's Environmental Legacy: A Series of Classroom Activities, Guide, and Resource Directory for Grades K-2 and 3-5. Legacy, Inc., 1997.
 Legacy, Partners in Environmental Education, Inc.
 P.O. Box 3813
 Montgomery AL 36109
 (800) 240-5115

Aquatic Project WILD, see *Project WILD Aquatic Education Activity Guide*.

Discovering Alabama, a public television series hosted and produced by Dr. Doug Phillips for Alabama Public Television and the Alabama Museum of Natural History; over 40 titles with Teacher's

Water Sourcebook: A Series of Classroom Activities for Grades K-2 and 3-5. Legacy, Inc., 1994.
Legacy, Partners in Environmental Education, Inc.
P.O. Box 3813
Montgomery AL 36109
(800) 240-5115

Part II. Supplemental Resources

The following is a partial listing of resources considered supplemental because they have been recommended by DOH teachers as potential sources of information and activities. Many of these materials are not environmentally-based and most have not been officially evaluated for consistency with national environmental education standards. Likewise, these materials have not been formally correlated to requirements of the Alabama Course of Study.

In keeping with DOH policy, teachers are encouraged to take care in choosing supplemental materials that are consistent with recognized standards for quality, accuracy, and balance. Of course, materials that do not meet such standards are sometimes helpful in developing critical thinking skills and students' abilities to analyze biases or inaccuracies that might apply. Here again, assistance can be obtained by contacting Wayne Strickland or Dr. Phillips.

Agriculture in the Classroom: Alabama Treasures by Jacquelyn Autrey et al. Agriculture in the Classroom Foundation, Inc., 1987
Alabama Department of Agriculture & Industries
P.O. Box 336
Montgomery AL 36109-0336

Acorn Naturalists. Resources for the trail and classroom; free catalogue.
17300 East 17th Street, #J-236
Tustin CA 92680
(800) 422-8886

Alabama Forest Resources Center
660 Adams Avenue
Montgomery AL 36130

Alabama Geographic Alliance
Department of Geography
Jacksonville State University
Jacksonville AL 36265
(800) 346-5444

Alabama Heritage Magazine
Box 870342
The University of Alabama
Tuscaloosa AL 35487-0342
(205) 348-7467

Alabama Museum of Natural History
Box 870340
Smith Hall
The University of Alabama
Tuscaloosa AL 35487-0340
(205) 348-7550

Alabama Natural Heritage Program
Alabama Department of Conservation and Natural Resources
64 N. Union Street
Montgomery AL 36130

Alabama PALS Liter Education Activity Guide
340 North Hull
Montgomery AL 36104
(334) 263-7737

America's Private Land: A Geography of Hope. U.S.D.A., 1996
U.S.D.A.
Natural Resource Conservation Service
Washington DC 20250
(800) 245-6340

Anniston Museum of Natural History
P.O. Box 1587
Anniston AL 36202-1587
(256) 237-6766

APT Classroom. A complete listing of APT programs suitable for classroom use is available.
Alabama Public Television
2112 11th Avenue South, Suite 400
Birmingham AL 35205-2884
(800) 239-5233

The Kingfisher Young Discoverers Encyclopedia of Facts and Experiments, available from Barnes & Noble, Borders, www.amazon.com or www.booksense.com

Prepared by the Educational Research Council of America. Allyn and Bacon, 1982

Magic School Bus, series. Scholastic Inc.

The Mailbox and The Mailbox Superbook, series. One book each for Preschool through Grade 5. Greensboro, NC: Education Center, 1998. www.themailbox.com

Multiple Intelligences: Teaching for Success. The New City School, Inc., 1997.

Nature Conservancy of Alabama
 Pepper Place
 2821C 2nd Avenue S.
 Birmingham AL 35233

Nature Link, Wildlife Education Series
 Alabama Wildlife Federation
 P.O. Box 1109
 Montgomery AL 36102
 (800) 822-WILD

Nature's Way series
 Center for Environmental Research & Service
 Troy State University
 Troy AL 36082

Outdoor Classrooms on School Sites. U.S. Department of Agriculture, Soil Conservation Service, 1980.

Peterson Field Guide series, Houghton Mifflin Co.

Pollution Prevention: A Common Sense Solution to a Complex Problem—video.
Discovering Alabama
 Alabama Museum of Natural History
 University of Alabama
 Box 870340
 Tuscaloosa AL 35487-0340
 (205) 348-2039

Audubon Society Field Guide series
Big Book of Everything: Social Studies,
 edited by Rosemary Alexander. Educational
 Instructor Publications, 1986

Creative Science Experiences for the Young Child
 by Imogene Foret and Joy MacKenzie. Incentive
 Publications, Inc., 1973

Environmental Education
 American Forest Foundation
 1111 19th Street, NW
 Washington DC 20036

Ft. Toulouse/Jackson Educational Activities
 Ft. Toulouse/Historic Site
 2521 West Ft. Toulouse Road
 Wetumpka, AL 36093

Geological Survey of Alabama
 P.O. Box 869999
 The University of Alabama
 Tuscaloosa AL 35486-9999
 (205) 349-2852

Geological Society of America
 P.O. Box 9140
 Boulder CO 80301-9140
 (303) 447-2020; (800) 472-1988
www.geosociety.org

Global Learning and Observation to Benefit the
 Environment (*The Globe*), a series of activities and
 investigations about the earth and global
 environmental systems for teachers and students.
 The Globe Program
 744 Jackson Place NW
 Washington DC 20503
 (800) 858-9947

Golden Press and Western Publishing Company
 field guide series (now Golden Books)

Instant Kids Books: Martin Luther King
 111 W Blanche St.
 Mansfield OH 44903
www.InstantKidsBooks.com

Project CATE, Conservation Action Through Education, a series of CD-ROMs. Project CATE P.O. Box 123 Mobile AL 36601 (334) 694-6247

Public Broadcasting Service, Inc. Various series, e.g., *The American Experience* and the Dallas County (TX) Community College American History series, as well as other educational programs. PBS Videos 1320 Braddock Place Alexandria VA 22314 (800) 344-3337

Ranger Rick's NatureScope, series. National Wildlife Federation, 1985-. National Wildlife Federation 1400 16th Street NW Washington DC 20036-2266

School Yard Habitat Information Kit, item #79948 Alabama Wildlife Federation P.O. Box 1109 Montgomery AL 36102 (800) 822-WILD

Simon & Schuster's Field Guide series *Teacher's Manual for Outdoor Classrooms—How to Plan, Develop, and Use Them*. U.S. Department of Agriculture, Soil Conservation Service, 1979. *Teaching about the Environment: A Resource Guide for Getting Started in Environmental Education*. Alabama Wildlife Federation, 1997. Alabama Wildlife Federation P.O. Box 1109 Montgomery AL 36102 (800) 822-WILD

The Thematic Units Collections, Carson Dellorsa Publishing Company Time-Life Videos P.O. Box 85060 Richmond VA 23285-5060 www.time-life.com

U.S. Department of the Interior Fish and Wildlife Service Division of Ecological Services P.O. Drawer 1190 Daphne AL 36526

U.S. Geological Survey Dept. P 601 National Center Reston VA 22092 (703) 648-7440

Waste—A Hidden Resource...Activity Guide, published by the Tennessee Valley Association *What a Web Site!* United States Department of Agriculture, Center for Nutrition Policy and Promotion. www.usda.gov/fcs/cnpp

WOW! The Wonders of Wetlands, an Educator's Guide. Environmental Concern, Inc. and The Watercourse, 1995. Acorn Naturalists 17300 East 17th Street, #J-236 Tustin CA 92680 (800) 422-8886

Part III. Additional Materials for General Consideration

The following materials represent a sampling of suggested readings for teachers who might wish to explore various perspectives from different areas—the environment, history, science, society, educational philosophy, teaching methodology—pertinent to adopting and implementing DOH. These materials typically do not include instructional resources or activities. They are intended mainly for the teachers' personal enrichment/development. The first book on the list, *A Sand County Almanac*, is considered the "bible" of conservation philosophy among outdoor enthusiasts. The conservation ethic espoused by author Aldo Leopold is central to the DOH aim of imbuing students with an ethic of environmental stewardship. The other materials—listed in alphabetical order—are a potpourri of suggestions from DOH staff and teachers. You are invited to add your own suggestions to this list.

- Leopold, Aldo. *A Sand County Almanac*. Oxford University Press, 1949.
- Abrams Planetarium. *Sky Calendar*. Michigan State University.
- Alabama Atlas & Gazetteer*. Delorme Publishing, 1998.
- Bartram, William. *Travels*. Francis Harper (Ed.), naturalist's edition. University of Georgia Press, 1998.
- Borland, Hal. *A History of American Wildlife*. National Wildlife Federation, 1975.
- Brown, Lester, Christopher Flavin, and Hilary French (Eds.). *State of the World 1999: A Worldwatch Institute Report on Progress Toward a Sustainable Society*. W.W. Norton & Co., 1999.
- Duncan, Dayton and Ken Burns. *Lewis & Clark: The Journey of the Corps of Discovery, An Illustrated History*. Alfred A. Knopf, 1998.
- Field, William. *Make a Movie that Tells a Story: Using a Home Camcorder...and Other Stuff You Already Own*. William Field, 2000. (P.O. Drawer 1549, Tuscaloosa AL 35403)
- Glasser, William. *The Quality School: Managing Students without Coercion*. 2d ed. HarperCollins, 1992.
- Goldfarb, Theodore D. *Taking Sides: Clashing Views on Controversial Environmental Issues*. 6th ed. Duskin Publishing Group, Inc., 1995.
- Harker, Donald F. and Elizabeth Ungar Natter. *Where We Live: A Citizen's Guide to Conducting a Community Environmental Inventory*. Island Press, 1995.
- Hawken, Paul. *The Ecology of Commerce: A Declaration of Sustainability*. Harper, 1994.
- Hirsch Jr., E.D. (Ed.). *What Your [Kindergarten through Sixth] Grader Needs to Know: Fundamentals*
- of a Good [K-6th] Grade Education. Core Knowledge Series; separate book for each grade. Delta Books, 1993.
- Hudson, Charles M. *Knights of Spain, Warriors of the Sun: Hernando de Soto and the South's Ancient Chiefdoms*. University of Georgia Press, 1997.
- Hudson, Charles M. *The Southeastern Indians*. University of Tennessee Press, 1976.
- Hyams, Edward. *Soil & Civilization*. Harper Colophon Books, 1976.
- Kellert, Stephen R. *The Value of Life: Biological Diversity and Human Society*. Island Press, 1996.
- McQuillan, Alan G. and Ashley L. Preston (Eds.). *Globally and Locally: Seeking a Middle Path to Sustainable Development*. University Press of America, 1998.
- Owsley, Frank. *Struggle for the Gulf Borderlands: The Greek War and the Battle of New Orleans, 1812-1815*. University of Alabama Press, 2000.
- Pierson, George Wilson. *Toqueville in America*. Johns Hopkins University Press, 1938; paperback edition, 1996.
- Read, William A. *Indian Place Names in Alabama*. University of Alabama Press, 1984.
- Rogers, William W., Richard D. Ward, Leah Rawls Atkins, and J. Wayne Flynt. *Alabama: The History of a Deep South State*. University of Alabama Press, 1994.
- Schlichter, Carol L. and W. Ross Palmer (Eds.). *Thinking Smart: A Primer of the Talents Unlimited Model*. Creative Learning Press, Inc., 1993.
- Tarnas, Richard. *The Passion of the Western Mind: Understanding the Ideas that have Shaped our World View*. Ballantine Books, 1991.
- Taylor, Alan. *American Colonies*. Viking Penguin, 2001.

Thayer, Robert. *Gray World, Green Heart: Technology, Nature, and the Sustainable Landscape*. Wiley, 1994.

Tocqueville, Alexis de. *Democracy in America*. Edited and abridged by Richard D. Heffner. Penguin Books, 1956.

Toricelli, Robert and Andrew Carroll (Eds.). *In Our Own Words: Extraordinary Speeches of the American Century*. Pocket Books, 1999.

Trimble, Stephen (Ed.). *Words from the Land: Encounters with Natural History Writing*. Peregrine Smith Books, 1988.

Watts, May Theilgaard. *Reading the Landscape of America*. Revised and expanded edition. Collier Macmillan Publishers, 1975.

Whimbe, Arthur and Jack Lochead. *Problem Solving & Comprehension*. 4th ed. Lawrence Erlbaum Assoc., 1986.

Wilkinson, Loren. *Earth Keeping: Christian Stewardship of Natural Resources*. William B. Eerdmans Publ. Co., 1980.

Wilson, Edward O. *Biophilia*. Harvard University Press, 1984.

Winn, William W. *The Old Beloved Path*. Chattahoochee Indian Heritage Assoc., 1992.

