

LEOPOLD EDUCATION PROJECT
NC STANDARD COURSE OF STUDY CORRELATION

Middle School

English Language Arts - Grade 6 **(Beginning in school year 2001-2002)**

Objective 1-1

Narrate a fictional or autobiographical account which:

- includes a coherent organizing structure.
- tells a story or establishes the significance of an event or events.
- uses remembered feelings and specific details.
- uses a range of appropriate strategies (e.g., dialogue, suspense, movement, gestures, expressions).

Objective 1-2

Explore expressive materials that are read, heard, and viewed by:

- generating a learning log or journal.
- creating an artistic interpretation that connects self to the work.
- discussing books/media formally and informally.

Objective 1-3

Interact appropriately in group settings by:

- listening attentively.
- showing empathy.
- contributing relevant comments connecting personal experiences to content.
- monitoring own understanding of the discussion and seeking clarification as needed.

Objective 2-1

Explore informational materials that are read, heard, and/or viewed by:

- reviewing the characteristics of informational works.
- restating and summarizing information.
- determining the importance of information.
- making connections to related topics/information.
- monitoring comprehension.
- drawing inferences.
- generating questions.

Objective 2-2

Use multiple sources of print and non-print information in developing informational materials such as brochures, newsletters, and infomercials by

- exploring a variety of sources from which information may be attained (e.g., books, Internet, electronic databases, CD-ROM).
- distinguishing between primary and secondary sources.

Objective 3-2

Explore the problem solution process by:

- studying examples (in literature and other text) that present problems coherently, describe the solution clearly, sequence reasons to support the solution, and show awareness of audience.
- preparing individual and/or group essays and presentations.

Objective 3-3

Study arguments that evaluate through:

- exploring examples that show a firm control of sound judgments, audience awareness, clear idea/theme, and the use of relevant and coherent reasons for support.
- preparing individual and/or group essays and presentations.

Objective 4-2

Develop (with teacher assistance) and apply appropriate criteria to evaluate the quality of the communication by:

- using knowledge of language structure and literary or media techniques.
- drawing conclusions based on evidence, reasons, or relevant information.
- considering the implications, consequences, or impact of those conclusions.

Objective 5-1

Increase fluency, comprehension, and insight through a meaningful and comprehensive reading program by:

- using effective reading strategies to match type of text.
- reading self-selected literature and other materials of individual interest.
- reading literature and other materials selected by the teacher.
- discussing literature in teacher-student conferences and small group discussions.
- taking an active role in whole class seminars.
- discussing and analyzing the effects on texts of such literary devices as figurative language, dialogue, and flashback.
- interpreting text by explaining elements such as plot, theme, point of view, characterization, mood, and style.
- investigating examples of distortion and stereotypes.
- recognizing underlying messages in order to identify recurring theme(s) across works.

Objective 5-2

Study the characteristics of literary genres (fiction, nonfiction, drama, and poetry) through:

- reading a variety of literature and other text (e.g., novels, autobiographies, myths, essays, magazines, plays, pattern poems, blank verse).
- interpreting what impact genre-specific characteristics have on the meaning of the work.
- exploring how the author's choice and use of a genre shapes the meaning of the literary work.
- exploring what impact literary elements have on the meaning of the text such as the influence of setting or the problem and its resolution.

Mathematics - Grade 6 (Beginning in school year 2004-2005)

Objective 1-02

Develop meaning for percents.

- Connect the model, number word, and number using a variety of representations.
- Make estimates in appropriate situations.

Objective 2-01

Estimate and measure length, perimeter, area, angles, weight, and mass of two- and three-dimensional figures, using appropriate tools.

Objective 3-02

Identify the radius, diameter, chord, center, and circumference of a circle; determine the relationships among them.

Objective 4-06

Design and conduct experiments or surveys to solve problems; report and analyze results.

Objective 5-04

Use graphs, tables, and symbols to model and solve problems involving rates of change and ratios.

Science - Grade 6 (Beginning in school year 2005-2006)

Objective 1-1

Identify and create questions and hypotheses that can be answered through scientific investigations.

Objective 1-3

Apply safety procedures in the laboratory and in field studies:

- Recognize potential hazards.
- Manipulate materials and equipment.
- Conduct appropriate procedures.

Objective 1-5

Analyze evidence to:

- Explain observations.
- Make inferences and predictions.
- Develop the relationship between evidence and explanation.

Objective 1-6

Use mathematics to gather, organize, and present quantitative data resulting from scientific investigations:

- Measurement.
- Analysis of data.
- Graphing.
- Prediction models.

Objective 1-8

Use oral and written language to:

- Communicate findings.
- Defend conclusions of scientific investigations.

Objective 1-9

Use technologies and information systems to:

- Research.
- Gather and analyze data.
- Visualize data.
- Disseminate findings to others.

Objective 1-10

Analyze and evaluate information from a scientifically literate viewpoint by reading, hearing, and/or viewing:

- Scientific text.
- Articles.
- Events in the popular press.

Objective 3-6

Evaluate ways in which human activities have affected Earth's pedosphere and the measures taken to control the impact:

- Vegetative cover.
- Agriculture.
- Land use.

- Nutrient balance.
- Soil as a vector.

Objective 4-1

Describe the flow of energy and matter in natural systems:

- Energy flows through ecosystems in one direction, from the sun through producers to consumers to decomposers.
- Matter is transferred from one organism to another and between organisms and their environments.
- Water, nitrogen, carbon dioxide, and oxygen are substances cycled between the living and non-living environments.

Objective 4-2

Evaluate the significant role of decomposers.

Objective 4-3

Examine evidence that green plants make food.

- Photosynthesis is a process carried on by green plants and other organisms containing chlorophyll.
- During photosynthesis, light energy is converted into stored energy which the plant, in turn, uses to carry out its life processes.

Objective 4-4

Evaluate the significance of photosynthesis to other organisms:

- The major source of atmospheric oxygen is photosynthesis.
- Carbon dioxide is removed from the atmosphere and oxygen is released during photosynthesis.
- Green plants are the producers of food that is used directly or indirectly by consumers.

Objective 4-5

Evaluate designed systems for ability to enable growth of certain plants and animals.

Objective 7-1

Describe ways in which organisms interact with each other and with non-living parts of the environment:

- Coexistence/Cooperation/Competition.
- Symbiosis.
- Mutual dependence.

Objective 7-2

Investigate factors that determine the growth and survival of organisms including:

- Light.
- Temperature range.
- Mineral availability.
- Soil/rock type.
- Water.
- Energy.

Objective 7-3

Explain how changes in habitat may affect organisms.

Objective 7-4

Evaluate data related to human population growth, along with problems and solutions:

- Waste disposal.
- Food supplies.
- Resource availability.
- Transportation.
- Socio-economic patterns.

Objective 7-5

Examine evidence that overpopulation by any species impacts the environment.

Objective 7-6

Investigate processes which, operating over long periods of time, have resulted in the diversity of plant and animal life present today:

- Natural selection.
- Adaptation.

Social Studies - Grade 6 (Beginning in school year 2003-2004)

Objective 1-1

Create maps, charts, graphs, databases, and models as tools to illustrate information about different people, places and regions in South America and Europe.

Objective 1-2

Generate, interpret, and manipulate information from tools such as maps, globes, charts, graphs, databases, and models to pose and answer questions about space and place, environment and society, and spatial dynamics and connections.

Objective 3-2

Describe the environmental impact of regional activities such as deforestation, urbanization, and industrialization and evaluate their significance to the global community.

Objective 3-3

Examine the development and use of tools and technologies and assess their influence on the human ability to use, modify, or adapt to their environment.

Visual Arts Education - Grade 6 (Beginning in school year 2001-2002)

Objective 1-1

Plan and organize for creating art.

Objective 1-2

Explore strategies for imagining and implementing images.

Objective 1-6

Develop perceptual awareness through the use of all senses.

Objective 2-4

Discover the expressive potential of various media and techniques.

Objective 2-5

Use art materials and tools in a safe and responsible manner.

Objective 3-1

Recognize and discuss the elements and principles found in the environment.

Objective 3-4

Recognize and discuss the value of intuitive perceptions in the problem-solving process.

Objective 3-5

Recognize and discuss how artists use the elements and principles of design to impact the environment.

Objective 4-1

Recognize and discuss art as a means of communication and persuasion.

Objective 4-2

Understand the use of life surroundings and personal experiences are used to express ideas and feelings visually.

Objective 4-3

Interpret the environment with realistic imagery.

Objective 4-4

Convey meaning through original imagery that does not rely on copying, tracing, patterns or duplicated materials.

Objective 6-1

Describe various purposes for creating works of visual art.

Objective 6-3

Acknowledge and discuss how others' work and ideas are unique expression of themselves.

Objective 6-5

Critique artwork through the use of: proper vocabulary, art elements and design principles, meaning, feeling, mood and ideas, oral and written expression.

Objective 7-1

Identify connections, similarities and differences between the visual arts and other disciplines.

Healthful Living - Grade 6 (Beginning in school year 2001-2002)

Objective 2-2

Develop criteria to assess the significance of a decision/problem.

Objective 2-3

Project behavioral consequences as a means of anticipating problems.

Objective 2-5

Initiate requests for help or assistance from another.

Objective 3-3

Describe individual behaviors that can harm or help the health of the environment.

Objective 4-1

Communicate own feelings.

Objective 4-2

Demonstrate attention to and interest in expressions of others.

Objective 9-3

Work cooperatively with more and less skilled peers.

Objective 10-2

Make conscious decisions about applying rules, procedures, and etiquette.

Objective 10-3

Utilize time effectively to complete assigned tasks.

Objective 10-4

Work cooperatively and productively in a group to accomplish a set goal in both cooperative and competitive activities.

English Language Arts - Grade 7 (Beginning in school year 2001-2002)

Objective 1-1

Narrate an account such as a news story or historical episode which:

- creates a coherent organizing structure appropriate to purpose, audience, and context.
- orients the reader/listener to the scene, the people, and the events.
- engages the reader/listener by establishing a context and creating a point of view.

Objective 1-2

Explore expressive materials that are read, heard, and viewed by:

- generating a learning log or journal.
- maintaining an annotated list of works read/viewed.
- creating an artistic interpretation that connects self and/or society to the selection.
- constructing and presenting book/media reviews.
- taking an active role in formal and informal book talks/discussions.

Objective 1-3

Interact in group settings by:

- responding appropriately to comments and questions.
- offering personal opinions confidently without dominating.
- giving appropriate reasons that support opinions.
- soliciting and respecting another person's opinion.

Objective 2-1

Respond to informational materials that are read, heard, and/or viewed by:

- summarizing information.
- determining the importance of information.
- making connections to related topics/information.
- monitoring comprehension.
- drawing inferences.
- generating questions.

Objective 2-2

Develop informational products and/or presentations that use and cite at least three print or non-print sources by:

- identifying and using appropriate primary and secondary sources.
- comparing, contrasting, and evaluating information from different sources about the same topic.
- evaluating information for extraneous details, inconsistencies, relevant facts, and organization.

Objective 3-2

Use the problem-solution process by:

- analyzing problems and solutions within various texts and situations.
- utilizing the problem-solution process within various contexts/situations.
- constructing essays/presentations that respond to a given problem by proposing a solution that includes relevant details.

Objective 3-3

Create arguments that evaluate by:

- stating a firm judgment.
- justifying the judgment with logical, relevant reasons, clear examples, and supporting details.
- creating an organizing structure appropriate to purpose, audience, and context.

Objective 4-1

Analyze the purpose of the author or creator by:

- examining any bias, apparent or hidden messages, emotional factors, or propaganda techniques.
- exploring and evaluating the underlying assumptions of the author/creator.

Objective 4-2

Develop (with assistance) and apply appropriate criteria to evaluate the quality of the communication by:

- using knowledge of language structure and literary or media techniques.
- drawing conclusions based on evidence, reasons, or relevant information.
- considering the implications, consequences, or impact of those conclusions.

Objective 4-3

Develop the stance of a critic by:

- considering and presenting alternative points of view or reasons.
- remaining fair-minded and open to other interpretations.

Objective 5-1

Increase fluency, comprehension, and insight through a meaningful and comprehensive reading program by:

- using effective reading strategies to match type of text.
- reading self-selected literature and other materials of individual interest.
- reading literature and other materials selected by the teacher.
- assuming an active role in teacher-student conferences.
- engaging in small group discussions.
- taking an active role in whole class seminars.
- analyzing the effects on texts of such literary devices as figurative language, dialogue, flashback, allusion, and irony.
- analyzing the effects of such elements as plot, theme, point of view, characterization, mood, and style.
- analyzing themes and central ideas in literature and other texts in relation to personal issues/experiences.

Objective 5-2

Study the characteristics of literary genres (fiction, nonfiction, drama, and poetry) through:

- reading a variety of literature and other text (e.g., mysteries, novels, science fiction, historical documents, newspapers, skits, lyric poems).
- analyzing what genre specific characteristics have on the meaning of the work.
- analyzing how the author's choice and use of a genre shapes the meaning of the literary work.
- analyzing what impact literary elements have on the meaning of the text such as the influence of setting on the problem and its resolution.

Objective 6-1

Model an understanding of conventional written and spoken expression by:

- using a variety of sentences correctly, punctuating them properly, and avoiding fragments and run-ons.
- using subject-verb agreement and verb tense that are appropriate for the meaning of the sentence.
- applying the parts of speech to clarify language usage. using pronouns correctly, including clear antecedents and correct case.
- using phrases and clauses correctly, including proper punctuation (e.g., prepositional phrases, appositives, dependent and independent clauses). determining the meaning of unfamiliar vocabulary words using context clues, a dictionary, a glossary, a thesaurus, and/or structural analysis (roots, prefixes, suffixes) of words.
- extending vocabulary knowledge by learning and using new words.
- determining when and where dialects and standard/nonstandard English usage are appropriate.
- applying language conventions and usage during oral presentations.
- choosing language that is precise, engaging, and well suited to the topic and audience.
- experimenting with figurative language and speech patterns.

Mathematics - Grade 7 (Beginning in school year 2004-2005)

Objective 3-01

Using three-dimensional figures:

- Identify, describe, and draw from various views (top, side, front, corner).
- Build from various views.
- Describe cross-sectional views.

Science - Grade 7 (Beginning in school year 2005-2006)

Objective 1-1

Identify and create questions and hypotheses that can be answered through scientific investigations.

Objective 1-3

Apply safety procedures in the laboratory and in field studies.

- Recognize potential hazards.
- Safely manipulate materials and equipment.
- Conduct appropriate procedures.

Objective 1-5

Analyze evidence to:

- Explain observations.
- Make inferences and predictions.
- Develop the relationship between evidence and explanation.

Objective 1-6

Use mathematics to gather, organize, and present quantitative data resulting from scientific investigations:

- Measurement.
- Analysis of data.
- Graphing.
- Prediction models.

Objective 1-8

Use oral and written language to:

- Communicate findings.
- Defend conclusions of scientific investigations.

Objective 1-9

Use technologies and information systems to:

- Research.
- Gather and analyze data.
- Visualize data.
- Disseminate findings to others.

Objective 1-10

Analyze and evaluate information from a scientifically literate viewpoint by reading, hearing, and/or viewing:

- Scientific text.

- Articles.
- Events in the popular press.

Objective 3-5

Examine evidence that atmospheric properties can be studied to predict atmospheric conditions and weather hazards:

- Humidity.
- Temperature.
- Wind speed and direction.
- Air pressure.
- Precipitation.
- Tornados.
- Hurricanes.
- Floods.
- Storms.

Social Studies - Grade 7 (Beginning in school year 2003-2004)

Objective 1-2

Generate, interpret, and manipulate information from tools such as maps, globes, charts, graphs, databases, and models to pose and answer questions about space and place, environment and society, and spatial dynamics and connections.

Visual Arts Education - Grade 7 (Beginning in school year 2001-2002)

Objective 1-1

Expand knowledge for organizing and creating art.

Objective 1-2

Develop strategies for imagining and implementing images.

Objective 1-3

Explore a variety of solutions in solving creative problems.

Objective 1-4

Understand and discuss that ideas from reality and from fantasy may be used to create original art.

Objective 1-6

Recognize and discuss the use of multiple senses in visual arts.

Objective 2-4

Use a variety of media and techniques in an expressive manner.

Objective 2-5

Discuss and develop the concept of safety as it relates to art tools and materials.

Objective 3-1

Explore and discuss the elements and principles of design found in the environment.

Objective 3-2

Explore and apply the elements and principles of design used in an aesthetic composition.

Objective 3-4

Explore and discuss the value of intuitive perceptions in the problem-solving process.

Objective 3-5

Explore and discuss the value of experimentation in the problem-solving process.

Objective 3-6

Explore and discuss how artists use the elements and principles of design to impact the environment.

Objective 4-1

Use visual arts to persuade and communicate ideas.

Objective 4-2

Demonstrate the use of life surroundings and personal experiences to express ideas and meanings visually.

Objective 4-3

Interpret the environment through art.

Objective 4-4

Invent original imagery to convey meaning.

Objective 4-5

Explore how artists develop personal imagery and style.

Objective 6-1

Explain how a work of art can meet its intended purpose.

Objective 6-3

Explain how other's work and ideas as unique expression of themselves.

Objective 6-5

Critique artwork evaluating meaning, feeling, mood and ideas in oral and written expression.

Objective 7-1

Explain connections, similarities and differences between the visual arts and other disciplines.

Objective 7-5

Communicate emotions and thoughts evoked by performances and dramatic material.

English Language Arts - Grade 8 (Beginning in school year 2001-2002)

Objective 1-1

Narrate a personal account which:

- creates a coherent, organizing structure appropriate to purpose, audience, and context.
- establishes a point of view and sharpens focus.
- uses remembered feelings.
- selects details that best illuminate the topic.
- connects events to self/society.

Objective 1-2

Explore expressive materials that are read, heard, and viewed by:

- generating a learning log or journal.
- maintaining an annotated list of works that are read or viewed, including personal reactions.
- taking an active role in and/or leading formal/informal book/media talks.

Objective 1-3

Interact in group activities and/or seminars in which the student:

- shares personal reactions to questions raised.
- gives reasons and cites examples from text in support of expressed opinions.
- clarifies, illustrates, or expands on a response when asked to do so, and asks classmates for similar expansion.

Objective 2-1

Analyze and evaluate informational materials that are read, heard, and/or viewed by:

- summarizing information.
- determining the importance of information.
- making connections to related topics/information.
- monitoring comprehension.
- drawing inferences.
- generating questions.
- extending ideas.

Objective 2-2

Create a research product in both written and presentational form by:

- determining purpose, audience, and context.
- choosing a relevant topic.
- selecting presentational format (e.g., video, essay, interactive technology) appropriate to audience.
- evaluating information for extraneous detail, inconsistencies, relevant facts, and organization.
- researching and organizing information to achieve purpose.
- using notes and/or memory aids to structure information.
- supporting ideas with examples, definitions, analogies, and direct references to primary and secondary sources.
- citing sources used.
- employing graphics such as charts, diagrams, and graphs to enhance the communication of information.

Objective 3-2

Refine the use of the problem-solution process by:

- evaluating problems and solutions within various texts and situations.
- utilizing the problem-solution process within various contexts/situations.
- constructing essays/presentations that respond to a given problem by proposing a solution that includes relevant details.

Objective 3-3

Create arguments that persuade by:

- engaging the audience by establishing a context, creating a persona, and otherwise developing interest.
- developing a controlling idea that makes a clear and knowledgeable judgment.
- arranging details, reasons, and examples effectively and persuasively.
- anticipating and addressing reader/listener concerns and counter-arguments.

Objective 4-1

Analyze the purpose of the author or creator and the impact of that purpose by:

- evaluating any bias, apparent or hidden messages, emotional factors, or propaganda
- evaluating the underlying assumptions of the author/creator.

Objective 4-2

Develop (with limited assistance) and apply appropriate criteria to evaluate the quality of the communication by:

- using knowledge of language structure and literary or media techniques.
- drawing conclusions based on evidence, reasons, or relevant information.
- considering the implications, consequences, or impact of those conclusions.

Objective 4-3

Use the stance of a critic to:

- consider alternative points of view or reasons.
- remain fair-minded and open to other interpretations.
- construct or review.

Objective 5-1

Increase fluency, comprehension, and insight through a meaningful and comprehensive reading program by:

- using effective reading strategies to match type of text.
- reading self-selected literature and other materials of interest to the individual.
- reading literature and other materials selected by the teacher.
- assuming a leadership role in student-teacher reading conferences.
- leading small group discussions.
- taking an active role in whole class seminars.
- analyzing the effects of elements such as plot, theme, characterization, style, mood, and tone.
- discussing the effects of such literary devices as figurative language, dialogue, flashback, allusion, irony, and symbolism.
- analyzing and evaluating themes and central ideas in literature and other texts in relation to personal and societal issues.

Objective 5-2

Study the characteristics of literary genres (fiction, nonfiction, drama, and poetry) through:

- reading a variety of literature and other text (e.g., young adult novels, short stories, biographies, plays, free verse, narrative poems).
- evaluating what impact genre-specific characteristics have on the meaning of the text.
- evaluating how the author's choice and use of a genre shapes the meaning of the literary work.
- evaluating what impact literary elements have on the meaning of the text.

Objective 6-1

Model an understanding of conventional written and spoken expression by:

- using a variety of sentence types, punctuating properly, and avoiding fragments and run-ons.
- using subject-verb agreement and verb tense that are appropriate for the meaning of the sentence.
- applying the parts of speech to clarify language usage.
- using pronouns correctly, including clear antecedents and case.
- using phrases and clauses correctly, including proper punctuation (e.g. prepositional phrases, appositives, dependent and independent clauses.)
- determining the meaning of unfamiliar vocabulary words using context clues, a dictionary, a glossary, a thesaurus, and/or structural analysis (roots, prefixes, suffixes) of words.
- extending vocabulary knowledge by learning and using new words.
- evaluating the use and power of dialects in standard/nonstandard English usage.
- applying correct language conventions and usage during formal oral presentations.

Mathematics - Grade 8 (Beginning in school year 2004-2005)

Objective 4-01

Collect, organize, analyze, and display data (including scatterplots) to solve problems.

Science - Grade 8 (Beginning in school year 2005-2006)

Objective 1-1

Identify and create questions and hypotheses that can be answered through scientific investigations.

Objective 1-3

Apply safety procedures in the laboratory and in field studies:

- Recognize potential hazards.
- Safely manipulate materials and equipment.
- Conduct appropriate procedures.

Objective 1-5

Analyze evidence to:

- explain observations.
- make inferences and predictions.
- develop the relationship between evidence and explanation.

Objective 1-6

Use mathematics to gather, organize, and present quantitative data resulting from scientific investigations:

- Measurement.
- Analysis of data.
- Graphing.
- Prediction models.

Objective 1-8

Use oral and written language to:

- Communicate findings.
- Defend conclusions of scientific investigations.
- Describe strengths and weaknesses of claims, arguments, and/or data

Objective 1-9

Use technologies and information systems to:

- Research.
- Gather and analyze data.
- Visualize data.
- Disseminate findings to others.

Objective 1-10

Analyze and evaluate information from a scientifically literate viewpoint by reading, hearing, and/or viewing:

- Scientific text.
- Articles.
- Events in the popular press.

Objective 3-2

Explain the structure of the hydrosphere including:

- Water distribution on earth.
- Local river basin.
- Local water availability.

Objective 3-3

Evaluate evidence that Earth's oceans are a reservoir of nutrients, minerals, dissolved gases, and life forms:

- Estuaries.
- Marine ecosystems.
- Upwelling.
- Behavior of gases in the marine environment.
- Value and sustainability of marine resources.
- Deep ocean technology and understandings gained.

Objective 3-4

Describe how terrestrial and aquatic food webs are interconnected.

Objective 3-7

Describe how humans affect the quality of water:

- Point and non-point sources of water pollution in North Carolina.
- Possible effects of excess nutrients in North Carolina waters.
- Economic trade-offs.
- Local water issues.

Objective 3-8

Recognize that the good health of environments and organisms requires:

- Monitoring of the hydrosphere.
- Water quality standards.
- Methods of water treatment.
- Maintaining safe water quality.
- Stewardship.

Objective 5-5

Use maps, ground truthing and remote sensing to make predictions regarding:

- Changes over time.
- Land use.
- Urban sprawl.
- Resource management.

Social Studies - Grade 8 (Beginning in school year 2003-2004)

Objective 9-1

Describe contemporary political, economic, and social issues at the state and local levels and evaluate their impact on the community.

Objective 9-3

Describe opportunities for and benefits of civic participation.

Visual Arts Education - Grade 8 (Beginning in school year 2001-2002)

Objective 1-1

Plan and organize for unique and original solutions.

Objective 1-2

Refine strategies for imagining and implementing images.

Objective 1-3

Analyze various solutions to solving creative problems to determine which are better.

Objective 1-5

Choose and apply the best ideas among those developed over time.

Objective 1-6

Develop solutions that incorporate the use of a variety of senses.

Objective 2-1

Discriminate in deciding the effectiveness of various media techniques to reach an artistic solution.

Objective 2-2

Apply materials such that their unique properties and potential impact the artistic solution.

Objective 2-3

Apply a variety of techniques and processes when working with each material.

Objective 2-4

Determine an original solution through expressive media techniques.

Objective 3-1

Understand how artists use the elements and principles of design to impact their environment.

Objective 3-2

Develop original solutions that effectively apply the elements of art in an aesthetic composition.

Objective 3-3

Apply diverse original solutions in the problem solving process.

Objective 3-4

Apply intuitive perceptions in the problem-solving process.

Objective 3-5

Apply diverse experimental solutions in problem-solving.

Objective 4-1

Communicate and persuade through visual arts.

Objective 4-2

Develop the use of life surroundings and personal experiences to express ideas and feelings visually.

Objective 4-3

Utilize environmental imagery to create artwork with personal meaning.

Objective 4-4

Invent original and personal imagery to convey ideas that are both personal and have meaning.

Objective 4-5

Develop personal imagery and style.

Objective 6-1

Evaluate the effectiveness of a work of art in meeting its intended purpose.

Objective 6-2

Evaluate the ways in which a work of art reflects or communicates the diverse experiences of the artist.

Objective 6-3

Interpret how a given work of art expresses the uniqueness of the individual artist.

Objective 6-4

Evaluate and reflect on the impact of various decisions made throughout the creative process.

Objective 6-5

Critique artwork evaluating purpose, tone and style in an oral or written expression.

Objective 7-1

Interpret and analyze connections, similarities and differences between the visual arts and other disciplines.

High School

English Language Arts (Beginning in school year 2001-2002)

Grade 9

Objective 1-1

Narrate personal experiences that offer an audience:

- scenes and incidents located effectively in time and place.
- vivid impressions of being in a setting and a sense of engagement in the events occurring.
- appreciation for the significance of the account.
- a sense of the narrator's personal voice.

Objective 1-2

Respond reflectively (individually and in groups) to a variety of expressive texts (e.g., memoirs, vignettes, narratives, diaries, monologues, personal responses) in a way that offers an audience:

- an understanding of the student's personal reaction to the text.
- a sense of how the reaction results from a careful consideration of the text.
- an awareness of how personal and cultural influences affect the response.

Objective 2-1

Demonstrate the ability to read and listen to explanatory texts by:

- using appropriate preparation, engagement, and reflection strategies.
- demonstrating comprehension of main ideas.
- summarizing major steps.
- determining clarity and accuracy of the text.

Objective 2-2

Explain commonly used terms and concepts that:

- clearly state the subject to be defined.
- classify the terms and identify distinguishing characteristics.
- organize ideas and details effectively.
- use description, comparison, figurative language, and other appropriate strategies purposefully to elaborate ideas.
- demonstrate a clear sense of audience and purpose.

Objective 2-3

Instruct an audience in how to perform specific operations or procedures by:

- considering the audience's degree of knowledge or understanding.
- providing complete and accurate information.
- using visuals and media to make presentations/products effective.
- using layout and design elements to enhance presentation/product.

Objective 3-2

Express an informed opinion that:

- states clearly a personal view.
- is logical and coherent.
- engages the reader's interest or curiosity.

Objective 3-3

Support that informed opinion by:

- providing relevant and convincing reasons.
- using various types of evidence, such as experience or facts.
- using appropriate and effective language, reasons, and organizational structure for the audience and purpose.
- demonstrating awareness of the possible questions, concerns, or counterarguments of the audience.

Objective 4-1

Evaluate the effectiveness of communication by:

- examining the use of strategies in a presentation/product.
- applying a set of predetermined standards.
- creating an additional set of standards and applying them to the presentation/product.
- comparing effective strategies used in different presentations/products.
- making logical inferences by using criteria to critique communication.

Objective 4-2

Read and critique various genres by:

- using preparation, engagement, and reflection strategies appropriate for the text.
- identifying and using standards to evaluate aspects of the work or the work as a whole.
- judging the impact of different stylistic and literary devices on the work.

Objective 5-1

Read and analyze various literary works by:

- using effective reading strategies for preparation, engagement, reflection.
- recognizing and analyzing the characteristics of literary genres, including fiction (e.g., myths, legends, short stories, novels), non-fiction (e.g., essays, biographies, autobiographies, historical documents), poetry (e.g., epics, sonnets, lyric poetry, ballads) and drama (e.g., tragedy, comedy).
- interpreting literary devices such as allusion, symbolism, figurative language, flashback, dramatic irony, dialogue, diction, and imagery.
- understanding the importance of tone, mood, diction, and style.
- explaining and interpreting archetypal characters, themes, settings.
- explaining how point of view is developed and its effect on literary texts.
- determining a character's traits from his/her actions, speech, appearance, or what others say about him or her.
- explaining how the writer creates character, setting, motif, theme, and other elements.
- making thematic connections among literary texts and media and contemporary issues.
- understanding the importance of cultural and historical impact on literary texts.
- producing creative responses that follow the conventions of a specific genre and using appropriate literary devices for that genre.

Objective 5-2

Demonstrating increasing comprehension and ability to respond personally to texts by selecting and exploring a wide range of genres.

Objective 6-1

Demonstrate an understanding of conventional written and spoken expression that:

- uses varying sentence types (e.g., simple, compound, complex, compound-complex) purposefully, correctly, and for specific effect.
- selects verb tense to show an appropriate sense of time.
- applies parts of speech to clarify and edit language.
- addresses clarity and style through such strategies as parallelism; appropriate coordination and subordination; variety and details; appropriate and exact words; and conciseness.
- analyzes the place and role of dialects and standard/nonstandard English.
- uses vocabulary strategies such as roots and affixes, word maps, and context clues to discern the meanings of words.

Grade 10

Objective 1-1

Produce reminiscences (about a person, event, object, place, animal) that engage the audience by:

- using specific and sensory details with purpose.
- explaining the significance of the reminiscence from an objective perspective.
- moving effectively between past and present.
- recreating the mood felt by the author during the reminiscence.

Objective 1-2

Respond reflectively (through small group discussion, class discussion, journal entry, essay, letter, dialogue) to written and visual texts by:

- relating personal knowledge to textual information or class discussion.
- showing an awareness of one's own culture as well as the cultures of others.
- exhibiting an awareness of culture in which text is set or in which text was written.
- explaining how culture affects personal responses.
- demonstrating an understanding of media's impact on personal responses and cultural analyses.

Objective 2-1

Create responses that evaluate problems and offer solutions to a reader/listener by:

- clearly stating the problem and relevant issues surrounding it.
- determining the significance of the problem.
- focusing on a neutral but specific audience.
- logically organizing the solutions for a specific audience.
- offering and evaluating effective solutions.
- creating a sense of resolution or closure.

Objective 2-2

Create responses that examine a cause/effect relationship among events by:

- effectively summarizing situations.
- showing a clear, logical connection among events.
- logically organizing connections by transitioning between points.
- developing appropriate strategies such as graphics, essays, and multi-media presentations to illustrate points.

Objective 3-1

Examine controversial issues by:

- sharing and evaluating initial personal response.
- researching and summarizing printed data.
- developing a framework in which to discuss the issue (creating a context).
- compiling personal responses and researched data to organize the argument.
- presenting data in such forms as a graphic, an essay, a speech, or a video.

Objective 3-3

Respond to issues in literature in such a way that:

- requires gathering of information to prove a particular point.
- effectively uses reason and evidence to prove a given point.
- emphasizes culturally significant events.

Objective 4-3

Analyze the ideas of others by identifying the ways in which writers:

- introduce and develop a main idea.
- choose and incorporate significant, supporting, relevant details.
- relate the structure/organization to the ideas.
- use effective word choice as a basis for coherence.
- achieve a sense of completeness and closure.

Objective 4-4

Evaluate the information, explanations, or ideas of others by:

- identifying clear, reasonable criteria for evaluation.
- applying those criteria using reasoning and substantiation.

Objective 5-1

Read and analyze selected works of world literature by:

- using effective strategies for preparation, engagement, and reflection.
- building on prior knowledge of the characteristics of literary genres, including fiction, non-fiction, drama, and poetry, and exploring how those characteristics apply to literature of world cultures.
- analyzing literary devices such as allusion, symbolism, figurative language, flashback, dramatic irony, situational irony, and imagery and explaining their effect on the work of world literature.
- analyzing the importance of tone and mood.
- analyzing archetypal characters, themes, and settings in world literature.
- making comparisons and connections between historical and contemporary issues.
- understanding the importance of cultural and historical impact on literary texts.

Objective 5-2

Demonstrate increasing comprehension and ability to respond personally to texts by:

- selecting and exploring a wide range of works which relate to an issue, author, or theme of world literature.
- documenting the reading of student-chosen works.

Objective 6-1

Demonstrate an understanding of conventional written and spoken expression by:

- employing varying sentence structures (e.g., inversion, introductory phrases) and sentence types (e.g., simple, compound, complex, compound-complex).
- analyzing authors' choice of words, sentence structure, and use of language.
- using word recognition strategies to understand vocabulary and exact word choice (Greek, Latin roots and affixes, analogies, idioms, denotation, connotation).
- examining textual and classroom language for elements such as idioms, denotation, and connotation to apply effectively in own writing/speaking.
- using correct form/format for essays, business letters, research papers, bibliographies.
- using language effectively to create mood and tone.

Grade 11

Objective 1-1

Create memoirs that give an audience a sense of how the past can be significant for the present by:

- elaborating upon a significant past episode from the student's current perspective.
- projecting the student's voice in the work through reflective interpretation of relationships to people and events.
- writing for a specific audience and purpose.

Objective 1-2

Reflect and respond expressively to texts so that the audience will:

- discover multiple perspectives.
- investigate connections between life and literature.
- explore how the student's life experiences influence his or her response to the selection.
- recognize how the responses of others may be different.
- articulate insightful connections between life and literature.
- consider cultural or historical significance.

Objective 2-1

Research ideas, events, and/or movements related to United States culture by:

- locating facts and details for purposeful elaboration.
- organizing information to create a structure for purpose, audience, and context.
- excluding extraneous information.
- providing accurate documentation.

Objective 2-3

Respond to informational texts by:

- using a variety of strategies for preparation, engagement, and reflection.
- paraphrasing main ideas and supporting details present in texts.
- explaining significant connections among the speaker's/author's purpose, tone, biases, and the message for the intended audience.

Objective 3-1

Use language persuasively in addressing a particular issue by:

- finding and interpreting information effectively.
- recognizing propaganda as a purposeful technique.
- establishing and defending a point of view.
- responding respectfully to viewpoints and biases.

Objective 3-2

Select an issue or theme and take a stance on that issue by:

- reflecting the viewpoint(s) of Americans of different times and places.
- showing sensitivity or empathy for the culture represented.
- supporting the argument with specific reasons.

Objective 3-3

Use argumentation for:

- interpreting researched information effectively.
- establishing and defending a point of view.
- addressing concerns of the opposition.
- using logical strategies (e.g., deductive and inductive reasoning, syllogisms, analogies) and sophisticated techniques (e.g., rhetorical devices, parallelism, irony, concrete images).
- developing a sense of completion.

Objective 4-1

Interpret meaning for an audience by:

- examining the functions and the effects of narrative strategies such as plot, conflict, suspense, point of view, characterization, and dialogue.
- interpreting the effect of figures of speech (e.g., personification, oxymoron) and the effect of devices of sound (e.g., alliteration, onomatopoeia).
- analyzing stylistic features such as word choice and links between sense and sound.
- identifying ambiguity, contradiction, irony, parody, and satire.
- demonstrating how literary works reflect the culture that shaped them.

Objective 4-2

Develop thematic connections among literary works by:

- connecting themes that occur across genres or works from different time periods.
- using specific references to validate connections.
- examining how representative elements such as mood, tone, and style impact the development of a theme.

Objective 5-2

Analyze the relationships among United States authors and their works by:

- making and supporting valid responses about the text through references to other works and authors.
- comparing texts to show similarities or differences in themes, characters, or ideas.

Objective 6-1

Demonstrate an understanding of the conventions of language by:

- decoding vocabulary using knowledge of Anglo-Saxon, Greek, and Latin bases and affixes.
- discerning the relationship of word meanings between pairs of words in analogies (synonyms/antonyms, connotation/denotation).
- revising writing to enhance voice and style, sentence variety, subtlety of meaning, and tone in considerations of questions being addressed, purpose, audience, and genres.
- contrasting use of language conventions of authors in different time periods of United States literature.
- analyzing the power of standard usage over nonstandard usage in formal settings such as job interviews, academic environment, or public speaking events.

Grade 12

Objective 1-1

Compose reflective texts that give the audience:

- an understanding of complex thoughts and feelings.
- a sense of significance (social, political, or philosophical implications).
- a sense of encouragement to reflect on his or her own ideas.

Objective 1-2

Respond to texts so that the audience will:

- empathize with the voice of the text.
- make connections between the learner's life and the text.
- reflect on how cultural or historical perspectives may have influenced these responses.
- examine the learner's own response in light of peers' responses.
- recognize features of the author's use of language and how the learner relates these features to his/her own writing.

Objective 2-1

Locate, process, and comprehend texts that explain principles, issues, and concepts at work in the world in order to:

- relate complex issues from a variety of critical stances.
- discern significant differences and similarities among texts that propose different ideas related to similar concepts.

Objective 2-2

Analyze general principles at work in life and literature by:

- discovering and defining principles at work in personal experience and in literature.
- predicting what is likely to happen in the future on the basis of those principles.

Objective 2-3

Compose texts (in print and non-print media) that help the audience understand a principle or theory by:

- researching experience for relevant principles that relate to themes in literature and life.
- presenting a thesis, supporting it, and considering alternative perspectives on the topic.
- adjusting the diction, tone, language, and method of presentation to the audience.

Objective 3-2

Organize and deliver an argument so that an intended audience respects it by:

- wording the claim clearly.
- specifying reasons in support of the claim that are likely to be convincing.
- adopting an appropriate tone and stance toward the issue.

Objective 4-1

Develop critiques that enable an audience to judge claims and arguments by:

- establishing and applying clear, credible criteria for evaluation.
- substantiating assessments with reasons and evidence.

Objective 6-1

Apply knowledge of literary terms, grammar, and rhetoric in order to write clearly, succinctly, and accurately by:

- understanding how to use and apply grammatical, metaphorical, or rhetorical devices.
- recognizing how to use different language conventions (such as loose or periodic sentences, effective use of passive voice, or the importance of strong verbs).
- revising writing to enhance voice and style, sentence variety, subtlety of meaning, and tone in considerations of questions being addressed, purpose, audience, and genres.
- contrasting use of language conventions of authors in different time periods of British literature.
- analyzing the power of standard usage over nonstandard usage in formal settings such as job interviews, academic presentations, or public speaking events.

Mathematics

(Beginning in school year 2005-2006)

Advanced Placement Statistics

Objective 2-01

Construct and interpret graphical displays of univariate data

Objective 3-02

Use and compare methods of data collection.

Objective 3-03

Apply statistical principles and methods in sample surveys; identify difficulties.

Objective 3-04

Apply principles and methods in designed experiments; identify difficulties.

Technical Mathematics 1

Objective 1-01

Apply various techniques and strategies to solve problems.

- Select or create an appropriate graphical display for a given set of data.
- Identify and represent patterns using appropriate algebraic notation.
- Select and apply appropriate formulas.
- Choose or create appropriate representations of two- and three-dimensional figures.

Objective 2-01

Select and use appropriate tools to measure two- and three-dimensional figures; interpret and communicate results with regard to precision.

Objective 2-02

Interpret and construct maps and scale drawings to solve problems.

Science - Grades 9-12 (Beginning in school year 2005-2006)

AP Biology

Objective 1-2

Design and conduct scientific investigations to answer biological questions.

- Identify variables.
- Use a control or comparison group when appropriate.
- Select and use appropriate measurement tools.
- Collect and record data.
- Organize data into charts and graphs.
- Analyze and interpret data.
- Communicate findings.

Objective 1-3

Formulate and revise scientific explanations and models using logic and evidence to:

- Explain observations.
- Make inferences and predictions.
- Explain the relationship between evidence and explanation.

Objective 1-4

Apply safety procedures in the laboratory and in field studies:

- Recognize potential hazards.
- Safely manipulate materials and equipment needed for scientific investigations.

Objective 6-5

Examine the structure and function of plants and animals.

- Analyze reproduction, growth, and development.
 - Patterns.
 - Adaptations (e.g. alternation of generations).
 - Regulation as by hormones.
- Recommended laboratory – Transpiration
 - Cell level.
 - Tissue level.
 - Organ level.
 - Interactions between levels of organization.
- Recommended laboratories - Physiology of the Circulatory System, Animal Behavior
- Identify responses to the environment.

Objective 7-1

Analyze population dynamics.

- Examine models to describe growth.
- Explore affects of abiotic and biotic factors.
- Analyze the impact of population changes.

Objective 7-2

Examine the actions and interactions of communities and ecosystems.

- Analyze energy flow.
- Examine trophic structure.
- Investigate water and element cycling.
- Assess affects of abiotic and biotic factors.
- Analyze relationships with in communities and ecosystems.
- Recommended laboratory - Dissolved Oxygen and Aquatic Primary Production

Objective 7-3

Assess current global issues.

- Analyze affects of human population.
- Analyze affects of technology.
- Examine causes.
- Assess consequences.

Objective 7-4

Examine past and present research on ecological principles.

AP Earth and Environmental Science

Objective 1-1

Identify questions and problems that can be answered through scientific investigations.

Objective 1-2

Design and conduct scientific investigations to answer questions about the world.

- Create testable hypotheses.
- Identify variables.
- Use a control or comparison group when appropriate.
- Select and use appropriate measurement tools.
- Observe and measure real phenomena.
- Collect and record data.
- Organize data into charts and graphs.

- Analyze and interpret data.
- Communicate findings.

Objective 1-3

Formulate and revise scientific explanations and models using logic and evidence to:

- Explain observations.
- Make inferences and predictions from data and observations.
- Explain the relationship between evidence and explanation.
- Communicate results, including suggested ways to improve experiments and proposed questions for further study.

Objective 1-4

Apply safety procedures in the laboratory and in field studies:

- Recognize and avoid potential hazards.
- Safely manipulation materials and equipment needed for scientific investigations.

Objective 2-2

Investigate the cycling of matter.

- Water.
- Carbon.
- Nitrogen.
- Phosphorus.
- Sulfur.

Objective 2-4

Investigate the atmosphere.

- Atmospheric history: origin and evolution.
- Composition.
- Structure.
- Atmospheric dynamics: weather and climate.

Objective 3-2

Investigate local, regional and global carrying capacities.

- Limiting factors.
- Density-dependent and density-independent factors.

Objective 4-4

Analyze biological resources.

- Benefits of biodiversity.
- Threats to biodiversity.
- Endangered species management.
- Nutrition and food supplies.
- Green revolution.

Objective 4-6

Analyze land types and uses.

- Residential and commercial, land use planning.
- Agricultural and forestry.
- Recreational and wilderness.
- Ecotourism, Parks and preserves.

Objective 5-1

Analyze the sources of major pollutants.

- EPA Criteria Pollutants.
- Indoor air pollutants.
- Thermal pollution.
- Pesticides.
- Acid deposition.
- Units and measurements.
- Point and nonpoint sources.

Objective 5-2

Investigate the effects of pollutants on:

- Aquatic systems (Eutrophication).
- Vegetation.
- Natural features, buildings and structures.
- Wildlife.

Objective 6-3

Investigate effects and consequences on biota:

- Habitat fragmentation and destruction.
- Introduced species.
- Overharvesting.

Objective 7-2

Analyze cultural and ethical considerations regarding the environment.

- Environmental worldviews.
- Indigenous peoples.
- Sustainable development.

Objective 7-3

Recognize significance of major environmental laws and regulations: regional, national and international.

- Clean Air Act.
- Clean Water Act.
- Comprehensive Environmental Response, Compensation and Liability Act.
- Convention on International Trade in Endangered Species.
- Endangered Species Act.

- Federal Insecticide, Fungicide and Rodenticide Control Act.
- Kyoto Protocol.
- Lacey Act.
- Mining Act.
- Montreal Protocol.
- National Environmental Policy Act.
- Resource Conservation and Recovery Act.
- Wilderness Act.

Objective 7-4

Develop an awareness of environmental options.

- Conservation.
- Preservation.
- Restoration.
- Remediation.
- Mitigation.

AP Physics B

Objective 1-1

Identify questions and problems that can be answered through scientific investigations.

Objective 1-2

Design and conduct scientific investigations to answer questions about the physical world.

- Create testable hypotheses
- Identify variables.
- Use a control or comparison group when appropriate.
- Select and use appropriate measurement tools.
- Observe and measure real phenomena
- Collect and record data.
- Organize data into charts and graphs.
- Analyze and interpret data.
- Determine uncertainties in measurements.
- Communicate findings.

Objective 1-3

Formulate and revise scientific explanations and models using logic and evidence to:

- Explain observations.
- Make inferences and predictions from data and observations.
- Explain the relationship between evidence and explanation.
- Communicate results, including suggested ways to improve experiments and proposed questions for further study.

Objective 1-4

Apply safety procedures in the laboratory and in field studies:

- Recognize and avoid potential hazards.
- Safely manipulate materials and equipment needed for scientific investigations.

Biology

Objective 1-1

Identify biological questions and problems that can be answered through scientific investigations.

Objective 1-2

Design and conduct scientific investigations to answer biological questions.

- Create testable hypotheses
- Identify variables.
- Use a control or comparison group when appropriate.
- Select and use appropriate measurement tools.
- Collect and record data.
- Organize data into charts and graphs.
- Analyze and interpret data.
- Communicate findings.

Objective 1-3

Formulate and revise scientific explanations and models of biological phenomena using logic and evidence to:

- Explain observations.
- Make inferences and predictions.
- Explain the relationship between evidence and explanation.

Objective 1-4

Apply safety procedures in the laboratory and in field studies:

- Recognize and avoid potential hazards.
- Safely manipulate materials and equipment needed for scientific investigations.

Objective 4-3

Assess, describe and explain adaptations affecting survival and reproductive success.

- Structural adaptations in plants and animals (form to function).
- Disease-causing viruses and microorganisms.
- Co-evolution.

Objective 4-5

Analyze the broad patterns of animal behavior as adaptations to the environment.

- Innate behavior.

- Learned behavior.
- Social behavior.

Objective 5-1

Investigate and analyze the interrelationships among organisms, populations, communities, and ecosystems.

- Techniques of field ecology.
- Abiotic and biotic factors.
- Carrying capacity.

Objective 5-2

Analyze the flow of energy and the cycling of matter in the ecosystem.

- Relationship of the carbon cycle to photosynthesis and respiration.
- Trophic levels - direction and efficiency of energy transfer.

Objective 5-3

Assess human population and its impact on local ecosystems and global environments:

- Historic and potential changes in population.
- Factors associated with those changes.
- Climate change.
- Resource use.
- Sustainable practices/stewardship.

Earth/Environmental Science

Objective 1-1

Identify questions and problems in the earth and environmental sciences that can be answered through scientific investigations.

Objective 1-2

Design and conduct scientific investigations to answer questions related to earth and environmental science.

- Create testable hypotheses
- Identify variables.
- Use a control or comparison group when appropriate.
- Select and use appropriate measurement tools.
- Collect and record data.
- Organize data into charts and graphs.
- Analyze and interpret data.
- Communicate findings.

Objective 1-3

Evaluate the uses of satellite images and imaging techniques in the earth and environmental sciences.

Objective 1-4

Apply safety procedures in the laboratory and in field studies:

- Recognize and avoid potential hazards.
- Safely manipulate materials and equipment needed for scientific investigations.

Objective 1-6

Identify and evaluate a range of possible solutions to earth and environmental issues at the local, national, and global level including considerations of:

- Interdependent human and natural systems.
- Diverse perspectives.
- Short and long range impacts.
- Economic development, environmental quality and sustainability.
- Opportunities for and consequences of personal decisions.
- Risks and benefits of technological advances.

Objective 2-7

Analyze the sources and impacts of society's use of energy.

- Renewable and non-renewable sources.
- The impact of human choices on Earth and its systems (e.g., global warming, smog, thermal pollution).

Objective 4-1

Evaluate erosion and depositional processes:

- Formation of stream channels with respect to the work being done by the stream (i.e. down-cutting, lateral erosion, and transportation).
- Nature and characteristics of sediments.
- Effects on water quality.
- Effect of human choices on the rate of erosion.

Objective 4-4

Evaluate water resources:

- Storage and movement of groundwater.
- Ecological services provided by the ocean
- Environmental impacts of a growing human population.
- Causes of natural and manmade contamination.

Objective 4-5

Investigate and analyze environmental issues and solutions for North Carolina's river basins, wetlands, and tidal environments:

- Water quality.
- Shoreline changes.
- Habitat preservation.

Physical Science

Objective 1-1

Identify questions and problems that can be answered through scientific investigations.

Objective 1-2

Design and conduct scientific investigations to answer questions about the physical world.

- Create testable hypotheses.
- Identify variables.
- Use a control or comparison group when appropriate.
- Select and use appropriate measurement tools.
- Collect and record data.
- Organize data into charts and graphs.
- Analyze and interpret data.
- Communicate findings.

Objective 1-3

Formulate and revise scientific explanations and models using logic and evidence to:

- Explain observations.
- Make inferences and predictions.
- Explain the relationship between evidence and explanation.

Objective 1-4

Apply safety procedures in the laboratory and in field studies:

- Recognize and avoid potential hazards.
- Safely manipulate materials and equipment needed for scientific investigations.

Physics

Objective 1-1

Identify questions and problems that can be answered through scientific investigations.

Objective 1-2

Design and conduct scientific investigations to answer questions about the physical world.

- Create testable hypotheses.
- Identify variables.
- Use a control or comparison group when appropriate.
- Select and use appropriate measurement tools.
- Collect and record data.
- Organize data into charts and graphs.
- Analyze and interpret data.
- Communicate findings.

Objective 1-3

Formulate and revise scientific explanations and models using logic and evidence to:

- Explain observations.
- Make inferences and predictions.
- Explain the relationship between evidence and explanation.

Objective 1-4

Apply safety procedures in the laboratory and in field studies:

- Recognize and avoid potential hazards.
- Safely manipulate materials and equipment needed for scientific investigations.

Social Studies - Grades 9-12 (Beginning in school year 2003-2004)

Grade 9

Objective 1-1

Define history and the concepts of cause and effect, time, continuity, and perspective.

Objective 1-2

Analyze and interpret primary and secondary sources to compare views, trace themes, and detect bias.

Objective 6-5

Analyze issues such as ecological/environmental concerns, political instability, and nationalism as challenges to which societies must respond.

Objective 7-2

Examine the causes and effects of scientific revolutions and cite their major costs and benefits.

Grades 11-12

Contemporary Issues in North Carolina History

Objective 1-1

List current environmental issues in North Carolina.

Objective 1-2

Trace the origin of environmental problems and concerns.

Objective 1-3

Discuss the impact environmental problems have on the citizens of North Carolina.

Objective 1-4

Analyze the economic and political impact caused by environmental problems.

Computer Technology Skills - Grades 9-12 (Beginning in school year 2004-2005)

Objective 1-1

Practice safe, responsible, and ethical behavior in using technology resources and information.

Objective 2-1

Practice and refine knowledge and skills in keyboarding/word processing/desktop publishing, spreadsheets, databases, multimedia, and telecommunications in preparing classroom assignments and projects.

Objective 2-2

Select and use appropriate technology tools to efficiently collect, analyze, and display data.

Goal 3 - English

Objective 3-1

Use word processing and/or desktop publishing for a variety of writing assignments/projects.

Objective 3-2

Use electronic resources for research.

Objective 3-3

Select and use technological tools for class assignments, projects, and presentations.

Goal 3 - Career - Technical Education

Objective 3-1

Select and use appropriate technologies to prepare for the workplace.

Objective 3-2

Use electronic resources for research.

Objective 3-3

Select and use technological tools for class assignments, projects, and presentations.

Goal 3 - Social Studies

Objective 3-1

Select and use appropriate technology tools to efficiently collect, analyze, and display data.

Objective 3-2

Use databases to collect, record, analyze, and display data.

Objective 3-3

Use electronic resources for research.

Objective 3-4

Select and use technological tools for class assignments, projects, and presentations.

Goal 3 - Science

Objective 3-1

Use scientific instruments to perform experiments.

Objective 3-2

Use appropriate technology tools to efficiently collect, analyze, and display data.

Objective 3-3

Use electronic resources for research.

Objective 3-5

Select and use technology tools for class presentations.

Visual Arts Education – Grades 9-12 (Beginning in school year 2001-2002)

Visual Arts Electives

Objective 1-1

Plan and organize for creating art.

Objective 1-2

Develop strategies for imagining and implementing images.

Objective 1-3

Recognize in a world of imagination there is no right or wrong, but some solutions are better than others.

Objective 1-4

Recognize that images from reality and from fantasy may be used to create original art.

Objective 1-6

Develop perceptual awareness through the use of all senses.

Objective 2-1

Explore unique properties and potential of materials.

Objective 2-3

Use different media and techniques expressively.

Objective 2-4

Use art materials and tools in a safe and responsible manner.

Objective 3-1

Recognize and apply the elements of art in an aesthetic composition.

Objective 3-2

Recognize and apply the design principles used in composition.

Objective 3-4

Recognize the value of intuitive perceptions in the problem-solving process.

Objective 3-5

Recognize the value of experimentation in the problem-solving process.

Objective 4-1

Demonstrate the use of life surroundings and personal experiences to express ideas and feelings visually.

Objective 4-2

Interpret the environment through art.

Objective 4-3

Invent original and personal imagery to convey meaning and not rely on copying, tracing, patterns or duplicated materials.

Objective 6-1

Understand there are various purposes for creating works of visual art.

Objective 6-2

Describe how people's experiences influence the development of specific artworks.

Objective 6-3

Accept others' work and ideas as unique expression of themselves.

Objective 6-5

Critique artwork through the use of: proper vocabulary, art elements and design principles, meaning, feeling, mood and ideas, oral and written expression.

Objective 6-6

Understand there are varied responses to specific artworks.

Objective 7-1

Identify connections, similarities and differences between the visual arts and other disciplines.

Objective 7-3

Compare characteristics of visual arts within a particular historical period or style with ideas, issues or themes in other disciplines.