

Course: Science

GRADE: 8

Revised 9/11/07

PLANNED COURSE CURRICULUM GUIDE

I. COURSE DESCRIPTION AND INTENT:

The major goal of the eighth grade physical science program is to provide basic knowledge of chemistry and physics as it relates to everyday experiences. Students will learn to discover and interpret scientific knowledge by completing projects, reports, demonstrations and lab activities. An additional goal of the course is to apply basic math principles to science concepts. The eighth grade physical science curriculum encompasses three major topics focusing on the chemical and physical nature of matter. These topics are: (1) scientific method, (2) physical and chemical nature of matter, and (3) heat, light and sound.



II. INSTRUCTIONAL TIME:

Class Periods: 90

Length of Class Periods (minutes): 70

Length of Course: One semester

Unit of Credit: n/a

PLANNED COURSE ADAPTATIONS/MODIFICATIONS

Introduction

The instructional adaptations that follow are provided as suggestions to be implemented with all students, particularly with those in need of special education services including the gifted. This listing is in no way intended to be exhaustive. Rather, it is reflective of some major considerations in the area of curriculum adaptations/modifications.

These instructional adaptations will work with any student, but are especially beneficial to those in need of learning support. Some may argue that these modifications are simply *good teaching*. Indeed, modifications of this type do represent good teaching. These principles of good teaching become instructional modifications whenever: (1) certain students in a particular class require such modifications *above and beyond* what is typically required by *most* students in that class and (2) without these modifications, these same students would not succeed.

Assessment is an integral part of instruction reflecting student progress as well as achievement. Therefore, also included are suggestions for assessment modifications.

- Peer Support
- Cooperative learning among peers
- Modeling
- Development of Information Organizer
- Development of Graphic Organizer
- Development of structured study guides
- Student selection of instructional material (i.e., reading, writing, math)
- Taped lessons
- Copy notes (peer or teacher)
- Student conferencing
- Combine and vary modes of lesson presentation
- Adjust language level to match the developmental and intellectual levels of students
- Let student practice given examples first. Then assign tasks to be completed.
- Provide opportunity for guided and independent practice in a variety of situations
- Limit number and length of directions
- Have students repeat/review directions (i.e., peer to peer, student to teacher)
- Give feedback that is as immediate, specific, and objective as possible
- Clarify error responses so that students do not make the same errors over and over again
- Reinforce progress towards desired outcomes
- Breakdown complex tasks into smaller, more manageable units
- Use verbal prompts to elicit desired results
- Use manual guidance (i.e., hand over hand) to facilitate correct responses
- Computer assisted instruction
- Assessment based upon teacher observation of student performance (i.e., daily work, portfolio, artifacts, projects)
- Extended test time
- Test read to student by teacher or peer
- Oral testing (i.e., student retelling of information)
- Open book/note test
- Alternate testing (any demonstration of a student's understanding of concepts)
- Retesting
- Reduce the number of responses required on tests
- Use of curriculum based assessment
- Vary test format
- Objectively define mastery as related to each task. Tasks should be learned to mastery
- Reduce or remove distracting stimuli
- Use of concrete objects and manipulatives in all stages of instruction and assessment
- Emphasize important information
- Allow extra time to complete assignments/projects
- Limit the number of assigned tasks in the initial stages of learning. As the student's competency increases, expect the student to complete the same number of tasks as the rest of the class
- Use supplemental materials
- Alternate assignments accepted (i.e., modification to homework assignments)
- Flexible grouping/individual assistance
- Seating to accommodate needs
- Teacher proximity
- Use behavioral management techniques (i.e., contracts, time-out, token system, charts)

PREFACE

Users and information seekers should familiarize themselves with the purpose and terminology of this **Planned Course Curriculum Guide (PCCG)**. We suggest that you first read the following:

- **PCCG PURPOSE AND INTENT**
- **PCCG DEFINITIONS**

The PCCG specifies the unit lesson outcome, essential content, standards, activities, resources, and evaluation of student performance. This sector provides the means to initiate the learning activities to attain the program goal as identified in the course description and intent.

The standards and outcomes are minimal expectations; further embellishment of the course is discretionary with the instructor depending upon the capability of the students.

This PCCG is designed as an ACTIVE document capable of technological modification as required.

The instructional delivery of this curriculum is quality controlled through the lesson plan development of the teacher.

PLANNED COURSE CURRICULUM GUIDE (PCCG) PURPOSE AND INTENT

The Planned Course Curriculum Guide (PCCG) is a multi-purpose document:

- All staff, particularly new teachers, can understand instructional expectations through the WRITTEN curriculum
- A continuing district-wide instructional process and scope and sequence of subject matter are enhanced. The WRITTEN curriculum is delivered through the TAUGHT curriculum [instructional content and learning activities] and is evaluated through the TESTED curriculum [expected levels of student achievement - learning outcomes]
- Priority student-centered outcomes are identified and attained through suggested learning activities and content designed to help insure a balanced and comprehensive basic curriculum
- Essential content and course standards provide an efficient basis for selecting appropriate instructional materials and resources
- Staff development areas for curriculum improvement are provided
- The PCCG conforms with current Pennsylvania Department of Education curriculum regulations and serves the dual feature of providing both an administrative document and an instructional guide
- Content and subject format remain flexible and adaptable to modification - an “active” document
- Special Pennsylvania Department of Education [PDE] legislation is identified
- Parents and students are provided with an overview of the instructional program and each course in particular

PLANNED COURSE CURRICULUM GUIDE (PCCG) DEFINITIONS

- **Course Description and Intent:** a brief overview of the course and program goals
- **Instructional Time:** frequency of class meetings and time/appropriate credit at the secondary level
- **Special Notes:** emphatic features or highlights and identification of Department of Education mandates found in the course
- **Unit Lesson Outcome:** describes the knowledge, skills, attitudes, student performance behaviors and areas of study that have been identified as appropriate to help the student attain the rigorous standards of a quality education
- **Teaching-Learning Activities:** suggested activities designed to help all students achieve the learning outcomes and standards
- **Outcomes/Standards:** statements establishing the minimal knowledge, skills, performance behaviors, and essential learning (content) a student must attain
- **Expected Levels of Achievement (Learning Outcomes):** what students will be expected to do as a result of the application of teaching-learning activities and content
- **Evaluation Criteria (Actual Level of Attainment):** student performance level achieved and measured through specified evaluation criteria

LEARNING OUTCOMES/STANDARDS AND CONTENT/ACTIVITIES

Statements of student learning expectations achieved through suggested teaching-learning activities and selected content to help reach standards and graduation requirements.

Subject Title: Science

Discipline/Grade Level: 8

UNIT LESSON OUTCOME: 1

Students will be able to use supplies , equipment and the periodic table to complete lab projects.

RELATIONSHIP TO PA OUTCOMES/STANDARDS (Check Appropriate Graduation Outcomes)																						
Communications	1.1	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	1.3	<input type="checkbox"/>	1.4	<input checked="" type="checkbox"/>	1.5	<input type="checkbox"/>	1.6	<input checked="" type="checkbox"/>	1.7	<input checked="" type="checkbox"/>	1.8	<input checked="" type="checkbox"/>						
Mathematics	2.1	<input type="checkbox"/>	2.2	<input checked="" type="checkbox"/>	2.3	<input checked="" type="checkbox"/>	2.4	<input checked="" type="checkbox"/>	2.5	<input checked="" type="checkbox"/>	2.6	<input checked="" type="checkbox"/>	2.7	<input checked="" type="checkbox"/>	2.8	<input type="checkbox"/>	2.9	<input type="checkbox"/>	2.10	<input type="checkbox"/>	2.11	<input type="checkbox"/>
Science & Technology	3.1	<input checked="" type="checkbox"/>	3.2	<input checked="" type="checkbox"/>	3.3	<input type="checkbox"/>	3.4	<input checked="" type="checkbox"/>	3.5	<input type="checkbox"/>	3.6	<input checked="" type="checkbox"/>	3.7	<input checked="" type="checkbox"/>	3.8	<input type="checkbox"/>	3.9	<input type="checkbox"/>				
Environment & Ecology	4.1	<input type="checkbox"/>	4.2	<input checked="" type="checkbox"/>	4.3	<input type="checkbox"/>	4.4	<input type="checkbox"/>	4.5	<input type="checkbox"/>	4.6	<input type="checkbox"/>	4.7	<input type="checkbox"/>	4.8	<input checked="" type="checkbox"/>	4.9	<input checked="" type="checkbox"/>				
Civics & Government	5.1	<input type="checkbox"/>	5.2	<input type="checkbox"/>	5.3	<input type="checkbox"/>	5.4	<input type="checkbox"/>														
Economics	6.1	<input type="checkbox"/>	6.2	<input type="checkbox"/>	6.3	<input type="checkbox"/>	6.4	<input type="checkbox"/>	6.5	<input type="checkbox"/>												
Geography	7.1	<input type="checkbox"/>	7.2	<input type="checkbox"/>	7.3	<input type="checkbox"/>	7.4	<input type="checkbox"/>														
History	8.1	<input checked="" type="checkbox"/>	8.2	<input type="checkbox"/>	8.3	<input type="checkbox"/>	8.4	<input checked="" type="checkbox"/>														
Arts & Humanities	9.1	<input checked="" type="checkbox"/>	9.2	<input type="checkbox"/>	9.3	<input type="checkbox"/>	9.4	<input type="checkbox"/>														
Health, Safety & PE	10.1	<input type="checkbox"/>	10.2	<input type="checkbox"/>	10.3	<input type="checkbox"/>	10.4	<input type="checkbox"/>	10.5	<input type="checkbox"/>												
Family & Consumer Science	11.1	<input type="checkbox"/>	11.2	<input type="checkbox"/>	11.3	<input type="checkbox"/>	11.4	<input type="checkbox"/>														
Career Education & Work	13.1	<input checked="" type="checkbox"/>	13.2	<input type="checkbox"/>	13.3	<input checked="" type="checkbox"/>	13.4	<input type="checkbox"/>														

LEARNING OUTCOMES/STANDARDS AND CONTENT/ACTIVITIES

Statements of student learning expectations achieved through suggested teaching-learning activities and selected content to help reach standards and graduation requirements.

ESSENTIAL CONTENT OUTCOMES/STANDARD	CONTENT & INSTRUCTIONAL ACTIVITIES/STRATEGIES WITH CORRECTIVES <i>(Individually created teaching activities may be used to achieve the standards; however, listed below are activities which may be helpful:</i>	ACTUAL LEVEL OF ATTAINMENT (EVALUATION CRITERIA) ASSESSMENT	RESOURCES AND MATERIALS
<p>STANDARD 1</p> <p>What equipment supplies are used in science lab?</p> <p>How are equipment and supplies used safely?</p> <p>What are the properties of matter?</p> <p>What are the states of matter and how are they characterized?</p> <p>What is the periodic table and how is it arranged?</p> <p>What are some characteristics of groups of elements in the periodic table?</p>	<p>Identify lab equipment.</p> <p>Identify chemicals.</p> <p>Describe safe use of lab supplies and equipment.</p> <p>Name the properties of matter.</p> <p>Explain what occurs during physical and chemical changes to matter.</p> <p>Describe the four states of matter.</p> <p>Predict how changes in pressure and temperature affect volume.</p> <p>Describe pure substances.</p> <p>Define, describe, and contrast compounds and mixtures.</p> <p>Explain how elements are arranged in the periodic table.</p> <p>Compare metals, non-metals and metalloids.</p> <p>List properties of groups of elements in the periodic table.</p>	<p>Lab Report</p> <p>Oral Questioning</p> <p>Science Demonstration</p> <p>Short Answers</p> <p>Experiments</p> <p>Projects</p>	<p>Holt Textbook: <u>Physical Science</u> ISBN: 0-03-051957-8</p> <p>Student Notebook</p>

LEARNING OUTCOMES/STANDARDS AND CONTENT/ACTIVITIES

Statements of student learning expectations achieved through suggested teaching-learning activities and selected content to help reach standards and graduation requirements.

Subject Title: Science

Discipline/Grade Level: 8

UNIT LESSON OUTCOME: 2

Students will be able to use research and observation skills to explore atomic theory.

RELATIONSHIP TO PA OUTCOMES/STANDARDS (Check Appropriate Graduation Outcomes)																						
Communications	1.1	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	1.3	<input type="checkbox"/>	1.4	<input checked="" type="checkbox"/>	1.5	<input type="checkbox"/>	1.6	<input checked="" type="checkbox"/>	1.7	<input checked="" type="checkbox"/>	1.8	<input checked="" type="checkbox"/>						
Mathematics	2.1	<input type="checkbox"/>	2.2	<input checked="" type="checkbox"/>	2.3	<input checked="" type="checkbox"/>	2.4	<input checked="" type="checkbox"/>	2.5	<input checked="" type="checkbox"/>	2.6	<input checked="" type="checkbox"/>	2.7	<input checked="" type="checkbox"/>	2.8	<input type="checkbox"/>	2.9	<input type="checkbox"/>	2.10	<input type="checkbox"/>	2.11	<input type="checkbox"/>
Science & Technology	3.1	<input checked="" type="checkbox"/>	3.2	<input checked="" type="checkbox"/>	3.3	<input type="checkbox"/>	3.4	<input checked="" type="checkbox"/>	3.5	<input type="checkbox"/>	3.6	<input checked="" type="checkbox"/>	3.7	<input checked="" type="checkbox"/>	3.8	<input type="checkbox"/>	3.9	<input type="checkbox"/>				
Environment & Ecology	4.1	<input type="checkbox"/>	4.2	<input type="checkbox"/>	4.3	<input type="checkbox"/>	4.4	<input type="checkbox"/>	4.5	<input type="checkbox"/>	4.6	<input type="checkbox"/>	4.7	<input type="checkbox"/>	4.8	<input checked="" type="checkbox"/>	4.9	<input checked="" type="checkbox"/>				
Civics & Government	5.1	<input type="checkbox"/>	5.2	<input type="checkbox"/>	5.3	<input type="checkbox"/>	5.4	<input type="checkbox"/>														
Economics	6.1	<input type="checkbox"/>	6.2	<input type="checkbox"/>	6.3	<input type="checkbox"/>	6.4	<input type="checkbox"/>	6.5	<input type="checkbox"/>												
Geography	7.1	<input type="checkbox"/>	7.2	<input type="checkbox"/>	7.3	<input type="checkbox"/>	7.4	<input type="checkbox"/>														
History	8.1	<input checked="" type="checkbox"/>	8.2	<input type="checkbox"/>	8.3	<input type="checkbox"/>	8.4	<input checked="" type="checkbox"/>														
Arts & Humanities	9.1	<input checked="" type="checkbox"/>	9.2	<input type="checkbox"/>	9.3	<input type="checkbox"/>	9.4	<input type="checkbox"/>														
Health, Safety & PE	10.1	<input type="checkbox"/>	10.2	<input type="checkbox"/>	10.3	<input type="checkbox"/>	10.4	<input type="checkbox"/>	10.5	<input type="checkbox"/>												
Family & Consumer Science	11.1	<input type="checkbox"/>	11.2	<input type="checkbox"/>	11.3	<input type="checkbox"/>	11.4	<input type="checkbox"/>														
Career Education & Work	13.1	<input checked="" type="checkbox"/>	13.2	<input type="checkbox"/>	13.3	<input checked="" type="checkbox"/>	13.4	<input type="checkbox"/>														

LEARNING OUTCOMES/STANDARDS AND CONTENT/ACTIVITIES

Statements of student learning expectations achieved through suggested teaching-learning activities and selected content to help reach standards and graduation requirements.

ESSENTIAL CONTENT OUTCOMES/STANDARD	CONTENT & INSTRUCTIONAL ACTIVITIES/STRATEGIES WITH CORRECTIVES <i>(Individually created teaching activities may be used to achieve the standards; however, listed below are activities which may be helpful:</i>	ACTUAL LEVEL OF ATTAINMENT (EVALUATION CRITERIA) ASSESSMENT	RESOURCES AND MATERIALS
<p>STANDARD 2</p> <p>What is an atom?</p> <p>What are the parts of an atom and their characteristics?</p> <p>How has atomic theory changed over time due to experiments, discoveries and advances in technology?</p> <p>How can an atom's characteristics be measured?</p> <p>How is research carried out?</p> <p>What are the procedures for developing scientific drawings?</p> <p>How do research, experiments and observation help scientists?</p>	<p>Describe experiments that have led to current atomic history.</p> <p>Compare models of the atom.</p> <p>Explain how atomic theory has changed as new information about the atom has been discovered.</p> <p>Compare the charge, location, and relative mass of protons, neutrons and electrons.</p> <p>Calculate the number of particles in an atom using the atomic number, mass number, and overall charge.</p> <p>Calculate atomic mass.</p> <p>Demonstrate research skills when given relevant questions.</p> <p>Create scientific drawings accurately following set formats and procedures.</p> <p>Justify research findings based on observations.</p>	<p>Lab Report</p> <p>Observation</p> <p>Oral Questioning</p> <p>Short Answer</p> <p>Visuals</p> <p>Quizzes</p>	<p>Student Notebook</p> <p>Holt Textbook: <u>Physical Science</u> ISBN: 0-03-051957-8</p>

LEARNING OUTCOMES/STANDARDS AND CONTENT/ACTIVITIES

Statements of student learning expectations achieved through suggested teaching-learning activities and selected content to help reach standards and graduation requirements.

	Discuss a variety of sources when evaluating conclusions and theories.		
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LEARNING OUTCOMES/STANDARDS AND CONTENT/ACTIVITIES

Statements of student learning expectations achieved through suggested teaching-learning activities and selected content to help reach standards and graduation requirements.

Subject Title: Science

Discipline/Grade Level: 8

UNIT LESSON OUTCOME: 3

Students will be able to describe, represent and explain chemical bonds.

RELATIONSHIP TO PA OUTCOMES/STANDARDS (Check Appropriate Graduation Outcomes)																						
Communications	1.1	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	1.3	<input type="checkbox"/>	1.4	<input checked="" type="checkbox"/>	1.5	<input type="checkbox"/>	1.6	<input checked="" type="checkbox"/>	1.7	<input checked="" type="checkbox"/>	1.8	<input checked="" type="checkbox"/>						
Mathematics	2.1	<input type="checkbox"/>	2.2	<input checked="" type="checkbox"/>	2.3	<input checked="" type="checkbox"/>	2.4	<input checked="" type="checkbox"/>	2.5	<input checked="" type="checkbox"/>	2.6	<input checked="" type="checkbox"/>	2.7	<input checked="" type="checkbox"/>	2.8	<input type="checkbox"/>	2.9	<input type="checkbox"/>	2.10	<input type="checkbox"/>	2.11	<input type="checkbox"/>
Science & Technology	3.1	<input checked="" type="checkbox"/>	3.2	<input checked="" type="checkbox"/>	3.3	<input type="checkbox"/>	3.4	<input checked="" type="checkbox"/>	3.5	<input type="checkbox"/>	3.6	<input checked="" type="checkbox"/>	3.7	<input checked="" type="checkbox"/>	3.8	<input type="checkbox"/>	3.9	<input type="checkbox"/>				
Environment & Ecology	4.1	<input type="checkbox"/>	4.2	<input type="checkbox"/>	4.3	<input type="checkbox"/>	4.4	<input type="checkbox"/>	4.5	<input type="checkbox"/>	4.6	<input type="checkbox"/>	4.7	<input checked="" type="checkbox"/>	4.8	<input checked="" type="checkbox"/>	4.9	<input type="checkbox"/>				
Civics & Government	5.1	<input type="checkbox"/>	5.2	<input type="checkbox"/>	5.3	<input type="checkbox"/>	5.4	<input type="checkbox"/>														
Economics	6.1	<input type="checkbox"/>	6.2	<input type="checkbox"/>	6.3	<input type="checkbox"/>	6.4	<input type="checkbox"/>	6.5	<input type="checkbox"/>												
Geography	7.1	<input type="checkbox"/>	7.2	<input type="checkbox"/>	7.3	<input type="checkbox"/>	7.4	<input type="checkbox"/>														
History	8.1	<input checked="" type="checkbox"/>	8.2	<input type="checkbox"/>	8.3	<input type="checkbox"/>	8.4	<input checked="" type="checkbox"/>														
Arts & Humanities	9.1	<input checked="" type="checkbox"/>	9.2	<input type="checkbox"/>	9.3	<input type="checkbox"/>	9.4	<input type="checkbox"/>														
Health, Safety & PE	10.1	<input type="checkbox"/>	10.2	<input type="checkbox"/>	10.3	<input type="checkbox"/>	10.4	<input type="checkbox"/>	10.5	<input type="checkbox"/>												
Family & Consumer Science	11.1	<input type="checkbox"/>	11.2	<input type="checkbox"/>	11.3	<input type="checkbox"/>	11.4	<input type="checkbox"/>														
Career Education & Work	13.1	<input checked="" type="checkbox"/>	13.2	<input type="checkbox"/>	13.3	<input checked="" type="checkbox"/>	13.4	<input type="checkbox"/>														

LEARNING OUTCOMES/STANDARDS AND CONTENT/ACTIVITIES

Statements of student learning expectations achieved through suggested teaching-learning activities and selected content to help reach standards and graduation requirements.

ESSENTIAL CONTENT OUTCOMES/STANDARD	CONTENT & INSTRUCTIONAL ACTIVITIES/STRATEGIES WITH CORRECTIVES <i>(Individually created teaching activities may be used to achieve the standards; however, listed below are activities which may be helpful:</i>	ACTUAL LEVEL OF ATTAINMENT (EVALUATION CRITERIA) ASSESSMENT	RESOURCES AND MATERIALS
<p>STANDARD 3</p> <p>How do atoms join?</p> <p>What types of bonds do atoms form and why?</p> <p>What are the signs of a chemical reaction?</p> <p>How does the Law of Conservation of mass affect bonds?</p> <p>How does the Law of the Conservation of Energy affect bonds?</p> <p>What is the purpose of chemical equations?</p> <p>What are the types of chemical equations and how can they be classified?</p> <p>What affects reaction rate?</p>	<p>Describe a chemical bond.</p> <p>Identify valence electrons, predict whether an atom is likely to form bonds.</p> <p>Describe ionic, covalent, and metallic bonds.</p> <p>Identify the clues that indicate a chemical reaction is occurring.</p> <p>Interpret and write simple chemical formulas.</p> <p>Interpret and write simple balanced chemical equations.</p> <p>Define and use The Law of Conservation of Mass when balancing equations.</p> <p>Describe, classify and balance four types of chemical equations.</p> <p>Compare and identify exothermic and endothermic reactions with activation energy and the Law of the Conservation of Energy.</p>	<p>Lab Reports</p> <p>Observation</p> <p>Research Paper</p> <p>Science Demonstration</p> <p>Short Answer</p> <p>Quizzes</p> <p>Tests</p>	<p>Student Notebook</p> <p>Holt Textbook: <u>Physical Science</u> ISBN: 0-03-051957-8</p>

LEARNING OUTCOMES/STANDARDS AND CONTENT/ACTIVITIES

Statements of student learning expectations achieved through suggested teaching-learning activities and selected content to help reach standards and graduation requirements.

	Describe the factors that affect the rate of a reaction.		
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LEARNING OUTCOMES/STANDARDS AND CONTENT/ACTIVITIES

Statements of student learning expectations achieved through suggested teaching-learning activities and selected content to help reach standards and graduation requirements.

Subject Title: Science

Discipline/Grade Level: 8

UNIT LESSON OUTCOME: 4

Students will be able to explain the benefits of studying organic chemistry.

RELATIONSHIP TO PA OUTCOMES/STANDARDS (Check Appropriate Graduation Outcomes)																						
Communications	1.1	<input checked="" type="checkbox"/>	1.2	<input checked="" type="checkbox"/>	1.3	<input type="checkbox"/>	1.4	<input checked="" type="checkbox"/>	1.5	<input type="checkbox"/>	1.6	<input checked="" type="checkbox"/>	1.7	<input checked="" type="checkbox"/>	1.8	<input type="checkbox"/>						
Mathematics	2.1	<input type="checkbox"/>	2.2	<input checked="" type="checkbox"/>	2.3	<input checked="" type="checkbox"/>	2.4	<input checked="" type="checkbox"/>	2.5	<input checked="" type="checkbox"/>	2.6	<input checked="" type="checkbox"/>	2.7	<input checked="" type="checkbox"/>	2.8	<input type="checkbox"/>	2.9	<input type="checkbox"/>	2.10	<input type="checkbox"/>	2.11	<input type="checkbox"/>
Science & Technology	3.1	<input type="checkbox"/>	3.2	<input checked="" type="checkbox"/>	3.3	<input checked="" type="checkbox"/>	3.4	<input checked="" type="checkbox"/>	3.5	<input type="checkbox"/>	3.6	<input checked="" type="checkbox"/>	3.7	<input type="checkbox"/>	3.8	<input type="checkbox"/>	3.9	<input type="checkbox"/>				
Environment & Ecology	4.1	<input type="checkbox"/>	4.2	<input type="checkbox"/>	4.3	<input type="checkbox"/>	4.4	<input type="checkbox"/>	4.5	<input type="checkbox"/>	4.6	<input type="checkbox"/>	4.7	<input checked="" type="checkbox"/>	4.8	<input checked="" type="checkbox"/>	4.9	<input type="checkbox"/>				
Civics & Government	5.1	<input type="checkbox"/>	5.2	<input type="checkbox"/>	5.3	<input type="checkbox"/>	5.4	<input type="checkbox"/>														
Economics	6.1	<input type="checkbox"/>	6.2	<input type="checkbox"/>	6.3	<input type="checkbox"/>	6.4	<input type="checkbox"/>	6.5	<input type="checkbox"/>												
Geography	7.1	<input type="checkbox"/>	7.2	<input type="checkbox"/>	7.3	<input type="checkbox"/>	7.4	<input type="checkbox"/>														
History	8.1	<input checked="" type="checkbox"/>	8.2	<input type="checkbox"/>	8.3	<input type="checkbox"/>	8.4	<input checked="" type="checkbox"/>														
Arts & Humanities	9.1	<input checked="" type="checkbox"/>	9.2	<input type="checkbox"/>	9.3	<input type="checkbox"/>	9.4	<input type="checkbox"/>														
Health, Safety & PE	10.1	<input type="checkbox"/>	10.2	<input type="checkbox"/>	10.3	<input type="checkbox"/>	10.4	<input type="checkbox"/>	10.5	<input type="checkbox"/>												
Family & Consumer Science	11.1	<input type="checkbox"/>	11.2	<input type="checkbox"/>	11.3	<input type="checkbox"/>	11.4	<input type="checkbox"/>														
Career Education & Work	13.1	<input checked="" type="checkbox"/>	13.2	<input type="checkbox"/>	13.3	<input checked="" type="checkbox"/>	13.4	<input type="checkbox"/>														

LEARNING OUTCOMES/STANDARDS AND CONTENT/ACTIVITIES

Statements of student learning expectations achieved through suggested teaching-learning activities and selected content to help reach standards and graduation requirements.

ESSENTIAL CONTENT OUTCOMES/STANDARD	CONTENT & INSTRUCTIONAL ACTIVITIES/STRATEGIES WITH CORRECTIVES <i>(Individually created teaching activities may be used to achieve the standards; however, listed below are activities which may be helpful:</i>	ACTUAL LEVEL OF ATTAINMENT (EVALUATION CRITERIA) ASSESSMENT	RESOURCES AND MATERIALS
<p>STANDARD 4</p> <p>What is organic chemistry?</p> <p>How does the study of organic chemistry affect humans?</p> <p>Why is it helpful to identify acids and bases using the pH scale?</p>	<p>Describe the properties and uses of acids, bases and salts.</p> <p>Identify the difference between strong acids and bases and weak acids and bases.</p> <p>Identify acids and bases using the pH scale.</p> <p>Describe the characteristics of carbs, lipids and proteins.</p> <p>Identify saturated, unsaturated and aromatic hydrocarbons.</p>	<p>Lab Report</p> <p>Log</p> <p>Observation</p> <p>Oral Questioning</p> <p>Science Demonstration</p> <p>Short Answer</p> <p>Quizzes</p> <p>Tests</p>	<p>Student Notebook</p> <p>Holt Textbook: <u>Physical Science</u> ISBN: 0-03-051957-8</p>