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ABSTRACT

Presented are the results of the Delaware Education Accountability System (DEAS) Science Task Force's analysis of science objectives, K-8. The natural science objectives are provided for K-1, 2-4, and 5-8. The categorization of objectives is in content categories and concepts. The interpretation of the coding used is fully explained in the introductory remarks that accompany the science objectives. Also included is an explanation of the relationship of the objective to the state curriculum. (SB)

STATE OF DELAWARE

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STATE OF DELAWARE

NATURAL SCIENCE OBJECTIVES

The natural science objectives for Delaware are provided for kindergarten and grade one, grades two through four, and grades five through eight. These objectives have also been utilized in the Equinox, a model for natural science education curriculum in Delaware's schools. Equinox was published in July, 1974 by the Delaware State Department of Public Instruction in cooperation with the Del Mod System.

It is of interest to note that every Equinox objective is also one of the science objectives of the Delaware Educational Assessment Program. Minor wording changes in the following list of objectives have been made so that the objective can be more easily tested. The Science Task Force added six additional objectives with the intent of more closely reflecting the science curricula in Delaware schools. These objectives are: Grade 4 - BS-C1; Grade 8 - BS-C1, BS-C4, PS-A4, PS-E4, PS-E6. The grade 4 objective is the only objective not to appear in the January, 1975 listing of the science objectives.

The DEAP objectives utilize the spelling of the International System of Units (SI) for the metric units. This is not utilized by Equinox.

During the summer and autumn of 1975, the Science Task Force categorized the objectives, where possible, into the major content categories of Biological Science, Physical Science, Earth Science, Mathematics, and Process Objectives.

At the fourth and eighth grade levels, the objectives were arranged into meaningful groupings within each of these content categories. Statements of concepts subsuming those objective groupings were then written.

Each objective has been coded to these content categories and concepts as follows. Each content category is identified by two capital letters, which are essentially the initials of the category; e.g., ES, identifies Earth Science. Within each category, each concept is assigned a capital letter. On the following pages, concepts have been printed in blocks to aid in locating them and to further differentiate them from the content categories and objectives. The educational objectives related to a given concept are numbered and listed beneath it. The code for each objective is printed immediately preceding the statement of that objective.

Where appropriate, three types of additional information are given for each objective: (1) if an objective at the previous grade level is related to the one under consideration, the code for the earlier objective(s) appears in the right most column; (2) after each objective, its code under the old system is given; (3) if an objective appears more than once within a grade level, an additional code is given in parentheses.

The following is an example of the interpretation of the coding of a fourth grade objective.

CONCEPT D⟶ Biological Science - D. Organisms interact with each other and their environment.

BS-D1 Describe interdependencies between living things and the environment. NS.4.29 (ES-C1) BS-A3

Current coding:
Biological Science,
Concept D,
Objective #1

Old Coding

This objective is also found under Earth Science, Concept C, Objective #1

Related grade 1 objective

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NATURAL SCIENCE OBJECTIVES

KINDERGARTEN AND GRADE ONE

BIOLOGICAL SCIENCE OBJECTIVES

BS-1 Identify living and nonliving things. NS.1.21

BS-2 Identify parts of a plant: roots, stem, leaves, flowers, fruit, and seed. NS.1.25

BS-3 Demonstrate the effect of water, light, and food on plant growth. NS.1.24

BS-4 Observe, measure, and record plant growth. NS.1.23

BS-5 Classify animals into two groups: egg layers and live-bearers. NS.1.28

BS-6 Classify animals into various categories based on criteria that the student will select, such as: means of locomotion, body coverings, resemblance to parents, type of home, means of securing food, caring for its young, and how used by man. NS.1.22

BS-7 Identify and describe when discussing plants and animals the use of terms: parents, offspring, male, and female. NS.1.29

BS-8 Order pictures of baby animals with the pictures of adult animals. NS.1.31

BS-9 Arrange a set of pictures into a food chain. NS.1.32

PHYSICAL SCIENCE OBJECTIVES

PS-1 Demonstrate the use of a simple balance. NS.1.12

PS-2 Order objects by weight by using a balance. NS.1.13

PS-3 Identify different sources of light, such as sun and stars, noting the differences between day and night. NS.1.14

PS-4 Identify objects attracted to a magnet from those not attracted to a magnet. NS.1.15

PS-5 Identify solids, liquids, and gases. NS.1.16

PS-6 Order objects in terms of hotter than or colder than by use of senses and/or instruments. NS.1.17

NATURAL SCIENCE OBJECTIVES (Continued)

PS-7 Name various ways in which we use heat. NS.1.18

PS-8 Infer which similarly shaped objects will float and which will sink after observing and manipulating them. NS.1.19

PS-9 Observe and orally describe changes in weather: temperature, cloud cover, moisture. NS.1.20

PS-10 Identify and name time on hour and half-hour. NS.1.27

PS-11 Identify the differences in the seasons. NS.1.30

MATHEMATICS OBJECTIVES

MA-1 Identify sets of objects in terms of number. NS.1.1

MA-2 Order objects by using numbers and their numerals. NS.1.4

MA-3 Identify and name circle, square, rectangle, triangle, cube, sphere, side, shape, large, big, small, wide, narrow, long, and short. NS.1.5

MA-4 Demonstrate a unit of linear measure by using a stick or other arbitrary length. NS.1.10

PROCESS OBJECTIVES

PR-1 Classify objects on the basis of a given property.

PR-2 Distinguish shades in terms of darker and lighter.

PR-3 Identify sounds on the basis of loud-soft, high-low, long-short. NS.1.6

PR-4 Identify/classify objects on the basis of taste: sweet, sour, salty, bitter. NS.1.7

PR-5 Identify right, left, up, down, over, under, forward, and backward. NS.1.8

PR-6 Distinguish/classify several objects using the sense of smell. NS.1.9

PR-7 Identify objects or changes by using the senses. NS.1.11

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NATURAL SCIENCE OBJECTIVES

GRADE TWO THROUGH GRADE FOUR

BIOLOGICAL SCIENCE OBJECTIVES

		Related Grade 1 Objectives
	Biological Science - A. Systematic organization exists in the structure of all living things.	
BS-A1	Identify the cell as the basic structural unit of all living things. (NS.4.36)	BS-1
	Biological Science - B. Each part of a plant performs a specific function and is responsive to its environment.	
BS-B1	Describe and demonstrate the functions of roots, stems, leaves, and flowers of plants. NS.4.33	BS-2
BS-B2	Describe the effect of soil, water, and light on the parts of plants. NS.4.34	BS-3
BS-B3	Describe the role of photosynthesis in the life of a plant. NS.4.38	
BS-B4	List six ways that seeds and pollen are distributed. NS.4.40	
	Biological Science - C. An organism can be described by using its attributes and thus be distinguished from other organisms.	

NATURAL SCIENCE OBJECTIVES (Continued)

		Related Grade 1 Objectives
BS-C1	Classify organisms into various categories based on characteristics such as: means of locomotion, body covering, resemblances to parents, habitat, means of securing food, woody or non-woody, leaf, propagation methods, spore or seed producers, etc.	PR-1, BS-6, BS-5, BS-8
BS-C2	Distinguish between vertebrate and invertebrate animals. NS.4.35	

Biological Science - D. Organisms interact with each other and their environment.

BS-D1	Describe interdependencies between living things and the environment. NS.4.29 (ES-C1)	BS-3
BS-D2	Identify foods eaten, describing the relationship to the plant or animals from which they come. NS.4.32	
BS-D3	Describe a simple food chain and/or web. NS.4.31	BS-9
BS-D4	Identify and describe animal and plant responses to changes in their environment. NS.4.30	BS-3
BS-D5	Identify sources of pollution and illustrate how each is dangerous to our health. NS.4.42 (ES-C4)	
BS-D6	Identify and classify various kinds of drugs and describe their effects on simple organisms. NS.4.43	

PHYSICAL SCIENCE OBJECTIVES

Physical Science - A. Heat is caused by the motion of molecules in matter and transfer of heat may result in change of state.

		Related Grade 1 Objectives
PS-A1	Describe and demonstrate how a substance can change from solid, liquid, or gas (in any order). NS.4.21	PS-5
PS-A2	Demonstrate examples of the rule that heat is transferred from warmer to cooler areas or objects. NS.4.41	PS-7
PS-A3	Demonstrate the use of various types of Celsius thermometers. NS.4.20 (ES-D2)	PS-6

Physical Science - B. All bodies are subjected to forces which may cause a change in motion.

PS-B1	Describe the effect of gravity on objects. NS.4.28
PS-B2	Demonstrate and describe orally the effect of friction on push-pull force. NS.4.18
PS-B3	Identify, order, and demonstrate by function how a simple machine can increase the ease with which we can do work. NS.4.17
PS-B4	Describe and demonstrate how speed can be increased or decreased. NS.4.15

Physical Science - C. Energy exists in many identifiable forms, and can be transferred from one form to another.

PS-C1	Identify, describe, and demonstrate sound, heat, solar energy, and electricity as forms of energy. NS.4.19 (ES-D3)
PS-C2	Demonstrate how sound travels in liquids, gases and solids. NS.4.13
PS-C3	Demonstrate and describe the fact that light is composed of many colors. NS.4.12

		Related Grade 1 Objectives
PS-C4	Name and identify various sources of energy, and give examples of how each is used by man. NS.4.16	PS-3, PS-7

EARTH SCIENCE OBJECTIVES

Earth Science - A. The movements and positions of the elements of the solar system are systematic and predictable.

ES-A1	Compare the sun, moon, stars, planets, and their relation to the earth. NS.4.23	
ES-A2	Describe and demonstrate the movement of the earth with respect to rotation, revolution, inclination. NS.4.27	
ES-A3	Identify, order, and describe units of time: year, month, century, decade, day, week, hour, minute, second. NS.4.1	PS-10

Earth Science - B. The physical environment can be described and models of the environment can be constructed.

ES-B1	Demonstrate the use of a magnetic compass to find direction. NS.4.22	
ES-B2	Construct maps of classroom, school grounds, and other areas and be able to describe them, using concept of north, south, east, and west. NS.4.4	PR-5

Earth Science - C. Physical characteristics of the environment affect the occurrence and survival of organisms.

		Related Grade 1 Objectives
ES-C1	Describe interdependencies between living things and the environment. NS.4.29 (BS-D1)	BS-3
ES-C2	Distinguish the effects of wind, water, plants, and animals on the soil. NS.4.25	
ES-C3	Distinguish the various types of soil such as rocky, sandy, clay. NS.4.24	
ES-C4	Identify sources of pollution, illustrate how each is dangerous to our health. NS.4.42 (BS-D5)	

Earth Science - D. Energy of the sun is transferred to the atmosphere and in reacting to the physical environment, results in changes in weather and climate.

ES-D1	Identify sources of weather information. NS.4.45	
ES-D2	Demonstrate the use of various types of Celsius thermometers. NS.4.20 (PS-A3)	
ES-D3	Identify, describe, and demonstrate sound, heat, solar energy, and electricity as a form of energy. NS.4.19 (PS-C1)	
ES-D4	Describe the inter-relationships of clouds, fog, rain, wind, and temperature. NS.4.26	PS-9

OPERATIONS OBJECTIVES

Operations - A. Objects have attributes that make possible their identification in a collection of similar objects. NS.4.3

OP-A1	Define an object using its physical properties. NS.4.7	PR-1, PR-2, PR-6, PS-4, PS-5
OP-A2	Use the metric system to describe and/or distinguish objects in terms of mass, length, area and volume. NS.4.8	BS-4, MA-4

Related Grade 1 Objectives

OP-A3 Describe objects in terms of area by superposition of arbitrary units. NS.4.9

OP-A4 Order containers on the basis of volume. NS.4.2

Operations - B. The components of scientific investigations can be identified and described.

OP-B1 Distinguish observations from inferences. NS.4.10

OP-B2 Distinguish between hypotheses, predictions, and guesses, based on student observed data. NS.4.6

OP-B3 Identify and name variables related to an investigation. NS.4.5

OP-B4 Describe the relationship of variables in an investigation. NS.4.46

OP-B5 Describe and interpret raw data and comparison of events using student observation. NS.4.11

OP-B6 Describe and practice safety measures common to any experiment. NS.4.47

STATE OF DELAWARE
NATURAL SCIENCE OBJECTIVES

GRADE FIVE THROUGH GRADE EIGHT

BIOLOGICAL SCIENCE OBJECTIVES

		Related Grade 4 Objectives
Biological Science - A. Instrumentation as an extension of our senses increases the potential for biological studies.		
BS-A1	Demonstrate the ability to properly use, handle, and care for a microscope. NS.8.17	
BS-A2	Mount a slide on the stage of a microscope and focus the scope using both low and high power objectives. NS.8.18	
Biological Science - B. Similarities and differences in plants and animals can be described.		
BS-B1	Compare plant and animal cells. NS.8.54	BS-A1
BS-B2	Describe ways by which plants reproduce. NS.8.55	BS-B1, BS-B4
BS-B3	Order plant reproductive methods on the basis of complexity. NS.8.46	
BS-B4	Describe how man uses genetic factors for the breeding of plants and animals. NS.8.44	
BS-B5	Describe and compare the life cycle of different vertebrates and invertebrates. NS.8.50	BS-C2

		Related Grade 4 Objectives
	Biological Science - C. Structural units of living organisms are reflected in life functions.	
BS-C1	Order and describe the structural units of living organisms (cell, tissue, organ, system, and organism). NS.8.90	BS-A1, BS-B1
BS-C2	Identify the major organs of the human body that are involved in converting food to energy. NS.8.71	BS-D2
BS-C3	Discuss major ways in which plants or animals obtain food. NS.8.45	BS-B2, BS-D3
BS-C4	Distinguish in plants and animals how respirative, digestive, locomotive, reproductive, structural, and nervous systems function. NS.8.91	BS-B3, BS-B4
BS-C5	Interpret a diagram or model showing that a plant is a food factory. NS.8.52	BS-B3
	Biological Science - D. Organisms respond to, interact with, and depend upon environmental conditions.	
BS-D1	Identify physical and biological factors in an environment and the response of living things to these stimuli. NS.8.49	BS-D1, ES-C1, BS-D3
BS-D2	Identify ways in which plants and animals compete for basic needs in their environment. NS.8.43	BS-D1, ES-C1, BS-D4
BS-D3	Interpret a diagram or model that illustrates various cycles or processes involving living things such as water, carbon, nitrogen, and oxygen. NS.8.51	
BS-D4	Identify five different biomes and give five examples of major plants or animals that may live there. NS.8.42	BS-D1, ES-C1, BS-D4

		Related Grade 4 Objectives
BS-D5	Distinguish how man is directly and indirectly dependent upon soil. NS.8.40	BS-D1, ES-C1
BS-D6	Identify the adaptations man must make when he leaves the earth and enters space. NS.8.38	BS-D1, ES-C1

Biological Science - E. Man's potential to induce change in the environment can result in a positive or negative effect on himself and other organisms.

BS-E1	List several ways that man can conserve natural resources and identify places in the community where the conservation practices might be improved. NS.8.48 (ES-C2)	ES-C4
BS-E2	Name endangered plant and animal species and describe ways in which natural habitats may be maintained and developed so the species may continue natural reproduction and replenishment. NS.8.47	BS-D1, ES-C1
BS-E3	Identify misuses of land areas within the school district and suggest possible corrective steps. NS.8.37 (ES-C1)	BS-D1, ES-C1
BS-E4	Describe the need for and location of state parks, national parks, forests, water areas, historical sites, camping areas, nature sanctuaries and arboretums, and tell why their location is important. NS.8.41 (ES-C3)	

PHYSICAL SCIENCE OBJECTIVES

Physical Science - A. Matter is distinguishable by its characteristics and properties.

PS-A1	Describe the basic properties of all matter (mass and space occupancy). NS.8.66	OP-A1

		Related Grade 4 Objectives
PS-A2	Distinguish between the physical and chemical properties of a given substance. NS.8.69 (PS-E3)	OP-A1
PS-A3	Define element, compound, and mixture, and state properties that distinguish them from one another. NS.8.67 (PS-E2)	
PS-A4	Distinguish between mass density and weight density. NS.8.62	
PS-A5	Distinguish between acids and bases using litmus or other indicator papers. NS.8.57 (PS-E5)	OP-A1
PS-A6	Use a periodic table and show how to find atomic mass and atomic number. NS.8.68	

Physical Science - B. The quantity of energy and matter in the universe is constant and interchangeable.

PS-B1	State the Laws of Conservation of Matter and Energy. NS.8.70	PS-A1, PS-A2, PS-B2
PS-B2	List various forms of energy and give an example of work done by each. NS.8.75	PS-C1
PS-B3	Explain the difference between kinetic and potential energy. NS.8.74	
PS-B4	Distinguish between heat and temperature. NS.8.61	PS-A1, PS-A2 PS-A3
PS-B5	Design an experiment illustrating how energy is transformed from one form to another. NS.8.77	PS-C4
PS-B6	Name the source of all forms of energy except nuclear energy, and list those forms that come directly from the source and those forms that come indirectly from the source. NS.8.76	PS-C4
PS-B7	Construct a simple electric circuit and show the advantages and disadvantages of parallel and series circuitry. NS.8.56	

		Related Grade 4 Objectives
	Physical Science - C. An unbalancing force must be exerted on a mass to change its motion.	
PS-C1	Identify ways that gravity is the moving force in natural phenomena. NS.8.34	PS-B1
PS-C2	Describe and demonstrate the basic Laws of Motion and Gravitation. NS.8.39	PS-B1
PS-C3	Define momentum in operational terms. NS.8.73	PS-B2
PS-C4	Interpret the use of a simple machine in terms of force applied and resistance overcome. NS.8.65	PS-B3
PS-C5	Determine by experiment effects of mass, size of arc, and length of string on time required for the swing of a pendulum. NS.8.24	
PS-C6	Interpret collected data to develop operational definitions of types of motion. NS.8.72	
	Physical Science - D. Light is subjected to observable changes dependent upon media encountered.	
PS-D1	Demonstrate that light travels in a straight line except when passing from one medium to another. NS.8.60	
PS-D2	Classify objects as transparent, translucent, opaque, and reflective. NS.8.59	
PS-D3	Distinguish between concave and convex lenses and explain how each affects light rays. NS.8.85	PS-C3
PS-D4	Identify plane, convex, and concave mirrors and describe what each does to light rays striking it. NS.8.86	PS-C3
PS-D5	Describe how man perceives color differences in the visual spectrum. NS.8.64	PS-C3

		Related Grade 4 Objectives
	Physical Science - E. The relationships between molecules and atoms explain physical and chemical properties.	
PS-E1	Describe some relationships between molecules and atoms. NS.8.58	
PS-E2	Define element, compound, and mixture, and state properties that distinguish them from one another. NS.8.67 (PS-A3)	
PS-E3	Distinguish between the physical and chemical properties of a given substance. NS.8.69 (PS-A2)	OP-A1
PS-E4	Distinguish between physical and chemical changes. NS.8.89	PS-A1
PS-E5	Distinguish between acids and bases using litmus or other indicator papers. NS.8.57 (PS-A5)	OP-A1
PS-E6	Demonstrate basic chemical processes as found in a "kitchen" chemistry unit such as acids, bases, vinegar-soda reactions, solutions, and crystal growing. NS.8.92	

MATHEMATICS OBJECTIVES

	Mathematics - A. Skillful use of measuring techniques is a necessary aspect of scientific investigations.	
MA-A1	Give examples of how each of the five senses can be used as instruments with which man can observe and measure. NS.8.9	OP-A2
MA-A2	Demonstrate skill in development of units of measurement and standards of measurement. NS.8.12	OP-A2

		Related Grade 4 Objectives
MA-A3	Identify the characteristics of a measurement system. NS.8.10	OP-A3
MA-A4	Demonstrate skill in using a metre stick and metric units including the millimetre, centimetre, and metre in measurement of distance and in reporting the answer to an accuracy of $\pm$ 0.5 millimetre. NS.8.14	OP-A2
MA-A5	Identify measurement as never exact but approximate. NS.8.87	
MA-A6	Demonstrate skill in using a graduated cylinder in measuring to an accuracy of $\pm$ .5 millilitres. NS.8.79	OP-A2
MA-A7	Describe zero as an instrument of measurement and read a scale to the nearest appropriate unit. NS.8.11	
MA-A8	Demonstrate methods for making indirect observations of length, width, and volume. NS.8.2	OP-A2, OP-A4
MA-A9	Apply a rule for calculating a quantity from two or more measurements (velocity from distance and time). NS.8.6	

EARTH SCIENCE OBJECTIVES

Earth Science - A. Space exploration affects our knowledge of the solar system.

ES-A1	Describe a possible explanation for the origin of the solar system. NS.8.36	
ES-A2	Describe conditions necessary for eclipse of the sun and moon. NS.8.80	ES-A1, ES-A2
ES-A3	Make inferences concerning the present feasibility of interplanetary travel. NS.8.35	

Earth Science - B. Physical and chemical techniques are used to identify rocks, minerals, and fossils.

		Related Grade 4 Objectives
ES-B1	Demonstrate the physical tests of minerals such as hardness, luster, crystal shape, cleavage, fracture, magnetism, and streak. NS.8.83	OP-A1
ES-B2	Demonstrate the chemical test for carbonates by the use of hydrochloric acid. NS.8.84	OP-A1
ES-B3	Demonstrate methods of determining the specific gravity of rock, mineral, or of an object. NS.8.88	OP-A1
ES-B4	Interpret a classification key to identify a small group of common minerals. NS.8.26	BS-C1
ES-B5	Identify common rocks: igneous, metamorphic, sedimentary. NS.8.28	
ES-B6	Demonstrate the ability to recognize and to collect specimens of rocks, minerals, and fossils. NS.8.82	
ES-B7	Classify similarities and differences in fossil specimens. NS.8.31	BS-C1

Earth Science - C. Man's expanding knowledge of his environment has encouraged better land use practices.

ES-C1	Identify misuses of land areas within the school district and suggest possible corrective steps. NS.8.37 (BS-E3)	BS-D1, ES-C1
ES-C2	List several ways that man can conserve natural resources and identify places in the community where the conservation practices might be improved. NS.8.48 (BS-E1)	ES-C4
ES-C3	Describe the need for and location of state parks, national parks, forests, water areas, historical sites, camping areas, nature sanctuaries and arboretums, and tell why their location is important. NS.8.41 (BS-E4)	
ES-C4	Demonstrate ability to use and interpret types of maps. NS.8.81	ES-B2

NATURAL SCIENCE OBJECTIVES (Continued)

		Related Grade 4 Objectives
ES-C5	Interpret the basic data recorded on a weather map. NS.8.29 (ES-D2)	ES-D1, ES-D4
ES-C6	Interpret the effect of the causes of changes in the water cycle in meteorologic terms. NS.8.33 (ES-D1)	ES-C2, ES-D4
ES-C7	Describe evidence of past continental glaciation. NS.8.30	
ES-C8	Infer some of the major events in the geological history of an area from a study of its topographic features and other data. NS.8.32	

Earth Science - D. Knowledge of the factors involved in weather and climatic conditions increases man's ability to predict, interpret, and adjust to natural phenomena.

ES-D1	Interpret the effects of causes of changes of the water cycle in meteorologic terms. NS.8.33 (ES-C6)	ES-C2, ES-D4
ES-D2	Interpret the basic data recorded on a weather map. NS.8.29 (ES-C5)	ES-D1, ES-D4

OPERATIONS OBJECTIVES

Operations - A. The procedure for conducting a scientific investigation provides for planning, implementing, and interpreting scientific experimentation and literature.

OP-A1	Describe and practice safety measures common to any experiment. NS.8.78	OP-B6
OP-A2	Describe or identify the probable scientific credibility of a current article from popular periodic literature. NS.8.25	OP-B1

		Related Grade 4 Objectives
OP-A3	When given a number of common household substances, construct a classification system whereby items can be identified on the basis of their observable properties.	OP-A1
OP-A4	Demonstrate a method for analysis of a system by identifying sources of the problem and describe a method to test for each possible problem source identified, e.g., a light bulb that will not glow. NS.8.21	
OP-A5	Demonstrate the ability to record information by interpreting a graph using data containing two variables. NS.8.20	OP-B4
OP-A6	Demonstrate the ability to properly identify relevant information and interpret a data table or graph using that information. NS.8.19	OP-B4
OP-A7	Describe what a model is and how models can be helpful. NS.8.8	ES-B2
OP-A8	Define an experimental variable. NS.8.22	OP-B3, OP-B4
OP-A9	Define an experimental control. NS.8.23	OP-B3, OP-B4
OP-A10	Identify the variables held constant, the manipulated variable, and the responding variable in an investigation. NS.8.1	OP-B3, OP-B4
OP-A11	Interpret an hypothesis from a set of observations. NS.8.5	OP-B5
OP-A12	Distinguish between statements that are hypotheses and those that are not. NS.8.4	OP-B2
OP-A13	Identify data that support or do not support the hypothesis tested in an investigation. NS.8.7	OP-B2, OP-B5
OP-A14	Demonstrate the ability to carry out an independent research activity from printed or oral directions. NS.8.13	