

NEW HAMPSHIRE ALIGNMENT FOR THE SCIENCE OF MENTAL ILLNESS

THE SCIENCE OF MENTAL ILLNESS		
New Hampshire Science GSEs: Grades 6 & 8		
Grade 6		
Lesson	Standard	GSE
2, 3, 4, 5	S:SPS1:6:1.2	Plan observations based on a given purpose.
2, 3, 4, 5	S:SPS1:6:1.3	Identify and investigate similarities and differences among observations and sets of observations.
2, 3, 4, 5	S:SPS1:6:1.8	Ask questions about relationships between and among observations.
2, 3, 4, 5	S:SPS1:6:1.9	Determine which observations will be helpful to a given investigation.
2, 3, 4, 5	S:SPS1:6:1.10	Distinguish between those questions that can be answered by science and those that cannot.
2, 3, 4	S:SPS1:6:3.1	Carry out simple student or teacher-developed procedures or experiments.
3	S:SPS1:6:3.2	Use appropriate tools to collect and record data.
2, 3, 4	S:SPS1:6:3.3	Follow the teacher's instructions in performing experiments, following all appropriate safety rules and procedures.
3	S:SPS1:6:4.1	Use appropriate tools to organize, represent, analyze and explain data.
2, 3, 4, 5	S:SPS1:6:4.2	Make and record observations using a pre-determined format.
3	S:SPS1:6:4.4	Identify patterns and relationships in data and formulate basic explanations.
2, 3	S:SPS1:6:4.5	Draw appropriate conclusions based on data collected.
3	S:SPS1:6:5.2	Explain how a hypothesis is a direct extension of a scientific idea and therefore makes that idea "testable."
2, 3, 4	S:SPS2:6:1.2	Describe how results of similar and repeated investigations may vary and suggest possible explanations for variations.
4	S:SPS2:6:1.3	Explain that sometimes similar investigations get different results because of unexpected differences in the things being investigated, the methods used, or the circumstances in which the investigation is carried out, and sometimes just because of uncertainties of observations.
4	S:SPS2:6:1.4	Realize that if more than one variable changes at the same time in an experiment, the outcome of the experiment may not be clearly attributable to any one of the variables.
1, 2	S:SPS2:6:2.1	Recognize that thinking about things as systems means looking for how every part relates to others.
1, 2	S:SPS2:6:2.3	Estimate or predict the effect that making a change in one part of the system will have on other parts, and on the system as a whole.
3	S:SPS2:6:3.1	Understand that models are often used to think about processes that happen too slowly, too quickly, or on too small a scale to observe directly; or that are too vast to be changed deliberately; or that are potentially dangerous.
2, 3, 4, 5, 6	S:SPS3:6:1.1	Work effectively within a cooperative group setting, accepting and executing assigned roles and responsibilities.

NEW HAMPSHIRE ALIGNMENT FOR THE SCIENCE OF MENTAL ILLNESS

2, 3, 4, 5, 6	S:SPS3:6:1.2	Work collectively within a group toward a common goal.
All lessons	S:SPS3:6:1.3	Demonstrate respect of one another's abilities and contributions to the group.
3	S:LS3:6:3.1	Recognize that there are genetic variations among individuals in groups of organisms and provide examples of how these variations affect the survival of an organism.
1, 5	S:LS4:6:1.1	Recognize that learning requires more than just storage and retrieval of information and that prior knowledge needs to be tapped in order to make sense out of new experiences or information.
All lessons	S:LS4:6:1.2	Explain that people can learn about others from direct experience, from the media, and from listening to others talk about their life and work.
2, 3, 4, 5	S:LS4:6:3.1	Recognize that the length and quality of human life are influenced by many factors, including sanitation, diet, medical care, gender, genes, environmental conditions, and personal health behaviors.
4, 5, 6	S:LS5:6:3.2	Differentiate between vaccines, which help prevent diseases from developing and spreading, and medicines, which relieve symptoms or cure diseases.
4, 5, 6	S:LS5:6:3.3	Recognize that the quality of personal health can be influenced by society and technology.
4, 5, 6	S:LS5:6:4.1	Understand that some form of science is used in most jobs/careers and that some jobs/careers specifically require knowledge of life science.

Grade 8

Lesson	Standard	GSE
2, 3, 4, 5	S:SPS1:8:1.3	Investigate similarities and differences noted when making observations.
2	S:SPS1:8:1.6	Rephrase questions so that they can be tested or investigated using scientific methodologies.
2, 3, 4, 5	S:SPS1:8:1.7	Ask questions about relationships between and among observable variables.
2, 3	S:SPS1:8:3.1	Use appropriate laboratory techniques to carry out student- or teacher-developed procedures or experiments.
2, 3, 4	S:SPS1:8:3.3	Follow the teacher's instructions in performing experiments, following all appropriate safety rules and procedures.
2, 3	S:SPS1:8:4.1	Use appropriate tools (including computer hardware and software) to collect, organize, represent, analyze and explain data.
2, 3	S:SPS1:8:4.3	Draw appropriate conclusions regarding the scientific question under investigation, based on the data collected.
2	S:SPS1:8:5.1	Determine if the results of an experiment support or refute the scientific idea tested.
2, 3, 4	S:SPS1:8:5.2	Evaluate whether the information and data collected allows an evaluation of the scientific idea under investigation.
2, 3, 4	S:SPS1:8:5.3	Determine what additional information would be helpful in answering the scientific question.
2, 3, 4	S:SPS2:8:1.1	Describe how scientific investigations usually involve the collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations to make sense of the collected evidence.
4	S:SPS2:8:1.2	Realize that when similar investigations give different results, the scientific challenge is to judge whether the differences are trivial or significant, and this often requires more investigations.
4	S:SPS2:8:1.3	Realize that knowledge, based on science, is subject to modification as new information challenges prevailing

NEW HAMPSHIRE ALIGNMENT FOR THE SCIENCE OF MENTAL ILLNESS

		theories and as a new theory leads to looking at old observations in a new way.
2, 4	S:SPS2:8:1.4	Provide examples that show how some scientific knowledge is very old and yet is still applicable today.
1, 2	S:SPS2:8:2.1	Understand that any system is usually connected to other systems, both internally and externally; thus a system may be thought of as containing subsystems and as being a subsystem of a larger system.
1, 2	S:SPS2:8:2.2	Analyze how the output of one part of a system, which can include materials, energy or information, can become the input to other parts.
1	S:SPS2:8:4.2	Recognize how many systems contain feedback mechanisms that serve to keep changes within specified limits.
2, 3, 4, 5, 6	S:SPS3:8:1.1	Work effectively within a cooperative group setting, accepting and executing assigned roles and responsibilities.
2, 3, 4, 5, 6	S:SPS3:8:1.2	Work collectively within a group toward a common goal.
All lessons	S:SPS3:8:1.3	Demonstrate respect of one another's abilities and contributions to the group.
2, 4, 5	S:SPS3:8:1.4	Demonstrate an understanding of the ethics involved in scientific inquiry.
3	S:SPS3:8:2.3	Explore the uses and limitations of models.
2, 4, 5, 6	S:SPS4:8:1.1	Use a variety of information access tools to locate, gather, and organize potential sources of scientific information to answer questions.
5	S:SPS4:8:1.2	Collect real-time observations and data, synthesizing and building upon existing information (e.g., online databases, NOAA, EPA, USGS) to solve problems.
2, 4, 5	S:SPS4:8:3.2	Apply new and unusual applications of existing knowledge to new and different situations.
2, 3, 4, 5, 6	S:SPS4:8:4.2	Use evidence collected from observations or other sources and use them to create models and explanations.
2, 3, 4, 5, 6	S:SPS4:8:5.1	Use a variety of media tools to make oral and written presentations, which include written notes and descriptions, drawings, photos, and charts to communicate the procedures and results of an investigation.
2, 3, 4, 5, 6	S:SPS4:8:6.1	Work in diverse pairs/teams to answer questions, solve problems and make decisions.
6	S:SPS4:8:6.2	Plan and develop team science projects.
All lessons	S:SPS4:8:6.3	Articulate understanding of content through personal interaction and sharing with peers.
6	S:SPS4:8:8.1	Develop and execute a plan to collect and record accurate and complete data from various sources to solve a problem or answer a question; and gather and critically analyze data from a variety of sources.
2, 4	S:LS1:8:2.1	Identify the functions of the human body's systems, including digestion, respiration, reproduction, circulation, excretion, movement, control and coordination and protection from disease; and describe how they interact with one another.
2, 3, 4	S:LS1:8:2.3	Explain why it is beneficial for an organism to be able to regulate its internal environment while living in a constantly changing external environment.
2, 4	S:LS1:8:2.4	Explain relationships between or among the structure and function of the cells, tissues, organs, and organ systems in an organism.
3, 5	S:LS3:8:3.1	Recognize that hereditary information is contained in genes, which are located in the chromosomes of each cell; and explain that inherited traits can be determined by either one or many genes, and that a single gene can influence

NEW HAMPSHIRE ALIGNMENT FOR THE SCIENCE OF MENTAL ILLNESS

		more than one trait, such as eye and hair color.
1, 2, 3, 4, 5	S:LS4:8:1.1	Recognize that unlike human beings, behavior in insects and many other species is determined almost entirely by biological inheritance.
All lessons	S:LS4:8:1.2	Explain that organism's behavioral response is a reaction to internal or and environmental stimuli, and that these responses may be determined by heredity or from past experience.
2, 3, 4, 5	S:LS4:8:1.3	Explain how all behavior is affected by both inheritance and experience.
All lessons	S:LS4:8:2.1	Recognize that disease in organisms can be caused by intrinsic failures of the system or infection from other organisms.
All lessons	S:LS4:8:2.4	Use data and observations to support the concept that environmental or biological factors affect human body systems (biotic and abiotic).
3, 4, 5	S:LS4:8:3.2	Recognize that an organism can be described in terms of a combination of traits; and differentiate between inherited traits and those that result from interactions with the environment.
3, 4, 5	S:LS5:8:2.1	Recognize and provide examples of how technology has enhanced the study of life sciences, as in the development of advanced diagnosing equipment improving medicine.
4, 5	S:LS5:8:3.3	Describes ways biotechnology helps humans, including improved health and medicine.
4, 5, 6	S:LS5:8:4.1	Understand that some scientific jobs/careers involve the application of life science content knowledge and experience in specific ways that meet the goals of the job.
New Hampshire Mathematics GSEs: Grades 6 – 8		
Grade 6		
Lesson	Standard	GSE
3	M:DSP:6:1	Interprets a given representation (circle graphs, line graphs, or stem-and-leaf plots) to answer questions related to the data, to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.
3	M:DSP:6:3	Organizes and displays data using tables, line graphs, or stem-and-leaf plots to answer questions related to the data, to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.
Grade 7		
3	M:DSP:7:1	Interprets a given representation (circle graphs, scatter plots that represent discrete linear relationships, or histograms) to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.
3	M:DSP:7:3	Organizes and displays data using tables, line graphs, scatter plots, and circle graphs to answer questions related to the data, to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.
Grade 8		
3	M:DSP:8:1	Interprets a given representation (line graphs, scatter plots, histograms, or box-and-whisker plots) to analyze the data to formulate or justify conclusions, to make predictions, or to solve problems.

NEW HAMPSHIRE ALIGNMENT FOR THE SCIENCE OF MENTAL ILLNESS

New Hampshire Reading GSEs: Grades 6 – 8		
Lesson	Standard	GSE
1, 2, 3, 4, 5	R:V:6:1.1 R:V:7:1.1 R—8—2.1	Students identify the meaning of unfamiliar vocabulary by using strategies to unlock meaning (e.g., knowledge of word structure, including prefixes/suffixes and base words; or context clues; or other resources, such as dictionaries, glossaries, thesauruses; or prior knowledge).
1, 2, 3, 4, 5	R:V:6:2.2 R:V:7:2.2 R—8—3.2	Selecting appropriate words or explaining the use of words in context, including content specific vocabulary, words with multiple meanings, or precise vocabulary.
1, 2, 3, 4, 5	R:IT:6:1.1 R:IT:7:1.1 R—8—7.1	Obtaining information from text features (e.g., table of contents, glossary, index, transition words /phrases, bold or italicized text, headings, subheadings, graphic organizers, charts, graphs, or illustrations).
1, 2, 3, 4, 5	R:IT:6:1.2 R:IT:7:1.2 R—8—7.2	Using information from the text to: answer questions related to main/central ideas or key details (6); answer questions, to state the main/central ideas, or to provide supporting details (7 & 8).
1, 2, 3, 4, 5	R:IT:6:1.3 R:IT:7:1.3 R—8—7.3	Organizing information to show understanding (e.g., representing main/central ideas or details within text through charting, mapping, paraphrasing, summarizing, or comparing/contrasting [6 & 7] or outlining [8]).
1, 2, 3, 4, 5	R—6—7.4 R—7—7.4 R—8—7.4	Generating questions before, during, and after reading to enhance understanding and recall; expand understanding and/or gain new information.
All lessons	R:IT:6:2.1 R:IT:7:2.1 R—8—8.1	Connecting information within a text, across texts (6), or to related ideas (7 & 8).
All lessons	R:IT:6:2.2 R:IT:7:2.2 R—8—8.2	Synthesizing information within or across text(s) (e.g., constructing appropriate titles; or formulating assertions or controlling ideas.
1, 2, 3, 4, 5	R:IT:6:2.3 R:IT:7:2.3 R—8—8.3	Drawing inferences about text, including author’s purpose (e.g., to inform, explain, entertain, persuade) or message; or forming and supporting opinions/judgments and assertions about central ideas that are relevant.
1, 2, 3, 4, 5	R:IT:6:2.4 R:IT:7:2.4 R—7—8.4	Distinguishing fact from opinion, and identifying possible bias/propaganda (6) or conflicting information within or across texts (7 & 8).
1, 2, 3, 4, 5	R:IT:6:2.5 R:IT:7:2.5 R—8—8.5	Making inferences about causes or effects.

NEW HAMPSHIRE ALIGNMENT FOR THE SCIENCE OF MENTAL ILLNESS

1, 2, 3, 4, 5	R—6—13 R—7—13 R—8—13	Uses comprehension strategies (flexibly and as needed) before, during, and after reading literary and informational text.
All lessons	R—6—15.2 R—7—15.2 R—8—15.2	Evaluating information presented, in terms of relevance.
All lessons	R—6—15.3 R—7—15.3 R—8—15.3	Gathering, organizing, and interpreting the information.
All lessons	R—6—15.4 R—7—15.4 R—8—15.4	Using evidence to support conclusions.
All lessons	R—6—17.2 R—7—17.2 R—8—17.2	Participating in in-depth discussions about text, ideas, and student writing by offering comments and supporting evidence, recommending books and other materials, and responding to the comments and recommendations of peers, librarians, teachers, and others.

New Hampshire Writing & Oral Communication GSEs: Grades 6 – 8

Lesson	Standard	GSE
All lessons	W—6—1.1 W:SL:7:1.1 W—8—1.1	Using varied sentence length and structure to enhance meaning (e.g., including phrases and clauses).
All lessons	W—6—1.2 W:SL:7:1.2 W—8—1.2	Using the paragraph form: indenting, main idea, supporting details.
All lessons	W—6—1.4 W:SL:7:1.4 W—8—1.4	Applying a format and text structure appropriate to the purpose of the writing
All lessons	W—6—2.1 W:RC:7:1.1 W—8—2.1	Selecting appropriate information to set context/background (6). Selecting and summarizing key ideas to set context (7 & 8).
All lessons	W—6—2.3 W:RC:7:1.3 W—8—2.3	Connecting what has been read (plot/ideas/concepts) to prior knowledge, other texts (6), or the broader world of ideas (7 & 8) by referring to (6) and explaining (7 & 8) relevant ideas.
All lessons	W—6—3.1 W:RC:7:2.1 W—8—3.1	Stating and maintaining a focus (purpose), a firm judgment, or point of view when responding to a given question.
All lessons	W—6—3.3	Using specific details and references to text or relevant citations to support focus or judgment.

NEW HAMPSHIRE ALIGNMENT FOR THE SCIENCE OF MENTAL ILLNESS

	W:RC:7:2.3 W—8—3.3	
All lessons	W—6—3.4 W:RC:7:2.4 W—8—3.4	Organizing ideas, using transition words/phrases and writing a conclusion that provides closure.
All lessons	W—6—6.1 W:IW:7:1.1 W—8—6.1	Using an organizational text structure appropriate to focus/controlling idea.
All lessons	W—6—7.1 W:IW:7:2.1 W—8—7.1	Establishing a topic.
All lessons	W—6—7.2 W:IW:7:2.2 W—8—7.2	Stating and maintaining a focus/controlling idea.
All lessons	W:IW:7:2.3 W—8—7.3	Writing with a sense of audience, when appropriate.
All lessons	W—6—8.1 W:IW:7:3.1 W—8—8.1	Including facts and details relevant to focus/controlling idea, and excluding extraneous information.
All lessons	W—6—8.2 W:IW:7:3.2 W—8—8.2	Including sufficient details or facts for appropriate depth of information: naming, describing, explaining, comparing, use of visual images.
All lessons	W:IW:7:3.4 W—8—8.4	Commenting on the significance of information, when appropriate.
All lessons	W—6—9.4	Using punctuation to clarify meaning.
All lessons	W:C:7:1.1 W—8—9.4	Applying rules of standard English usage to correct grammatical errors.
All lessons	W—6—9.5 W:C:7:2.5 W—8—9.5	Correctly spelling grade-appropriate, high-frequency words, including homonyms and homophones and applying syllables and affix spelling patterns/rules (6). Correctly spelling grade-appropriate, high-frequency words and applying conventional spelling patterns/rules (7). Applying conventional and word-derivative spelling patterns/rules (8).
All lessons	W—6—11.4 W—7—11.4 W—8—11.4	Writing in a variety of genres.
All lessons	OC—6—1.1 OC—7—1.1 OC—8—1.1	Following verbal instructions to perform specific tasks, to answer questions, or to solve problems.
All lessons	OC—6—1.2	Summarizing, paraphrasing, questioning, or contributing to information presented.

NEW HAMPSHIRE ALIGNMENT FOR THE SCIENCE OF MENTAL ILLNESS

	OC—7—1.2 OC—8—1.2	
All lessons	OC—6—1.4 OC—7—1.4 OC—8—1.4	Participating in large and small group discussions showing respect for a range of individual ideas.
New Hampshire Health Education GSEs: Middle School		
Lesson	Standard	Descriptor
3	AOD:1.2	Know the physical, social, and emotional effects of AOD use.
3	AOD:2.11	Know the relationship between AOD use and mental health.
3	INJ:5.3	Know the influence of alcohol and other drug use on depression.
1, 2, 3, 5, 6	INJ:7.2	Know how to recognize signs of depression and mental illness.
4, 5, 6	INJ:7.3	Know how to get help for self and others.
3	INJ:7.4	Know the influence of AOD use on depression.
2, 3, 5, 6	MH:2.5	Know how emotions and behaviors change during adolescence.
All lessons	MH:3.2	Know skills for effective speaking, e.g., I-statements, eye contact, assertiveness.
All lessons	MH:3.3	Know skills for effective listening, e.g., reflective listening.
2, 3	MH:4.1	Know how to analyze stressors, e.g., death, ending relationships, changing schools, rejection.
2, 3	MH:4.3	Know ways to avoid stress.
1, 2, 3, 5, 6	MH:5.1	Know signs, behaviors, and symptoms of depression and other mental illness, including suicide.
All lessons	MH:6.1	Know when to get help.
All lessons	MH:6.2	Know why to get help.
All lessons	MH:6.3	Know valid sources of information and help.
2, 4, 5, 6	MH:6.4	Know how to identify support systems (formal and informal).