

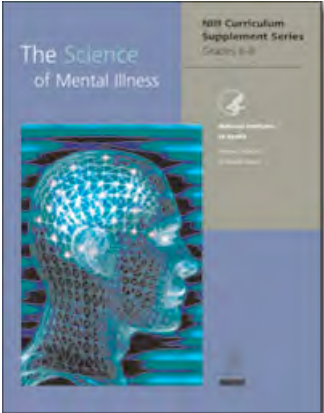
The Science of Mental Illness

An NIH Curriculum Supplement for Grades 6 - 8

The Science of Mental Illness is a teacher's guide to two weeks' of hands-on activities for middle school science classes. It contains:

- Detailed lesson plans
- Extensive background information
- Masters for transparencies and student worksheets
- Links to **optional** online activities
- Paper-based alternatives for each online activity
- Lessons aligned to the **Virginia Standards of Learning**

Activities and Learning Focus

<p><i>The Science of Mental Illness</i></p> 	<p>Lesson 1. The Brain: Control Central The brain is the organ that controls feelings, behaviors, and thoughts, and changes in the brain's activity result in long- or short-term changes to these.</p> <p>Lesson 2. What's Wrong? Mental illnesses such as depression are diseases of the brain.</p> <p>Lesson 3. Mental Illness: Could It Happen to Me? Factors such as genetics, environment, and social influences affect a person's propensity to develop a mental illness.</p> <p>Lesson 4. Treatment Works! Medications and psychotherapies are among the effective treatments for most mental illnesses.</p> <p>Lesson 5. In Their Own Words Mental illnesses affect many aspects of a person's life, but they can be treated so that the individual can function effectively.</p> <p>Lesson 6. You're the Expert Now Learning the facts about mental illness can dispel misconceptions.</p>
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Teachers, scientists, and science educators develop the NIH curriculum supplements. Each module is field tested at a diverse array of schools nationwide. The activities are designed using the 5-E Instructional Model and the *National Science Education Standards*.

Request your **FREE** copy today at <http://science.education.nih.gov>

Questions? Contact the NIH Office of Science Education:
supplements@science.education.nih.gov (301) 402-2469

VIRGINIA ALIGNMENT FOR NIH SUPPLEMENT THE SCIENCE OF MENTAL ILLNESS

THE SCIENCE OF MENTAL ILLNESS		
Virginia Life Science Standards of Learning		
Lesson	Standard	Description
2, 3	LS.1.d	Plan and conduct investigations in which models are constructed to illustrate and explain phenomena.
2, 3	LS.1.i	Plan and conduct investigations in which interpretations from a set of data are evaluated and defended.
1, 2, 3	LS.1.j	Plan and conduct investigations in which an understanding of the nature of science is developed and reinforced.
1, 2	LS.3.a	Investigate and understand that living things show patterns of cellular organization including cells, tissues, organs, and systems.
2	LS.3.b	Investigate and understand that living things show patterns of cellular organization including life functions and processes of cells, tissues, organs, and systems (respiration, removal of wastes, growth, reproduction, digestion, and cellular transport).
2	LS.4.c	Investigate and understand that the basic needs of organisms must be met in order to carry out life processes including factors that influence life processes.
3	LS.13.d	Investigate and understand that organisms reproduce and transmit genetic information to new generations including factors affecting the expression of traits.
3	LS.13.e	Investigate and understand that organisms reproduce and transmit genetic information to new generations including characteristics that can and cannot be inherited.
Virginia Physical Science Standards of Learning		
2, 3	PS.1.f	Plan and conduct investigations in which research skills are utilized using a variety of resources.
2, 3	PS.1.k	Plan and conduct investigations in valid conclusions are made after analyzing data.
2, 3	PS.1.l	Plan and conduct investigations in which research methods are used to investigate practical problems and questions.
Virginia English Standards of Learning – Grades 7 & 8		
Lesson	Standard	Description
All lessons	7.4	Read to determine the meanings and pronunciations of unfamiliar words and phrases.
All lessons	7.5.e	Draw conclusions based on explicit and implied information.
All lessons	7.6	Read and demonstrate comprehension of a variety of informational texts.

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All lessons	7.7.c	Synthesize information from multiple sources.
All lessons	7.8	Develop narrative, expository, and persuasive writing.
All lessons	8.4.b	Use context, structure, and connotations to determine meaning of words and phrases.
All lessons	8.6.e	Read and follow instructions to complete an assigned task.
All lessons	8.6.f	Summarize and critique text.
All lessons	8.6.g	Evaluate and synthesize information to apply in written and oral presentations.
All lessons	8.6.h	Draw conclusions based on explicit and implied information.
All lessons	8.6.i	Make inferences based on explicit and implied information.
All lessons	8.7	Write in a variety of forms, including narrative, expository, persuasive, and informational.

Virginia Mathematics Standards of Learning – Grades 7 & 8

Lesson	Standard	Description
3	7.4.a	Solve practical problems using rational numbers (whole numbers, fractions, decimals) and percents.
3, 4	7.17	Collect, analyze, display, and interpret data, using a variety of graphical methods.
3, 4	7.18	Make inferences, conjectures, and predictions based on analysis of a set of data.
3	8.3	Solve practical problems involving rational numbers, percents, ratios, and proportions.
3, 4	8.11	Analyze problem situations, including games of chance, board games, or grading scales, and make predictions, using knowledge of probability.
3	8.14.b	Relate and compare tables, graphs, and rules as different forms of representation for relationships.

Virginia Health Standards of Learning – Grades 6, 7, & 8

Lesson	Standard	Description
3, 4, 5, 6	6.1.c	Apply critical thinking skills and personal management strategies to address issues and concerns related to personal health and well-being including the effects of environmental influences on personal health.
All lessons, 6	6.2.b	Use knowledge of the body’s structure and function to make sound decisions related to personal health including the interconnection of the body systems.
3, 4, 5, 6	7.3	Investigate and analyze the various factors that guide an individual’s decisions about health and well-being.
3, 4, 5, 6	7.4.a	Describe how family and community priorities influence an individual’s ability to reduce diseases and other health problems including the relationship of social and environmental factors to individual and community health.

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3, 4, 5, 6	7.5.b	Work cooperatively with others to support and promote healthy schools, families, and communities, including appropriate methods of expressing opinions on health issues.
3, 4, 5, 6	8.1.d	Analyze and evaluate the relationship between health-risk behaviors and the onset of health problems that can impact health and well-being during the adolescent years, including the impact of failing to recognize issues related to emotional and mental health.
3, 4, 5, 6	8.2.b	Apply health concepts and skills to the management of personal and family health, including the benefits of using resistance, problem-solving, and decision-making skills for resolving health issues.
3, 4, 5, 6	8.5.a	Investigate and evaluate ways in which peers, families, and other community groups can work together to build a safe and healthy community, including methods used to reduce health hazards and risks.