

# West Virginia Board of Education Content Standards Policies

## Grade 5

The authoritative document is [WVBE Policy 2520.1A](#). The document you are reading is to help you plan your implementation of the standards for a particular grade and subject area.

### Science

Fifth Grade Science expands understanding of earth and sky, life cycles and habitats of organisms, properties, positions and motions of objects and energy. Major content concepts at the fifth grade level include changes in properties of matter, structures, functions and adaptations of organisms, and the structure of the earth's system.

Standard	Implementation
S.5.GS.1 Students will develop a model to describe that matter is made of particles too small to be seen.	
S.5.GS.2 Students will measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.	
S.5.GS.3 Students will make observations and measurements to identify materials based on their properties.	
S.5.GS.4 Students will conduct an investigation to determine whether the mixing of two or more substances results in new substances.	
<b>Topic: Matter and Energy in Organisms and Ecosystems.</b>	
S.5.GS.5 Students will use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun.	
S.5.GS.6 Students will support an argument that plants get the materials they need for growth chiefly from air and water.	
S.5.GS.7 Students will develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.	

<b>Topic: Earth's Systems</b>	
S.5.GS.8 Students will develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.	
S.5.GS.9 Students will describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.	
S.5.GS.10 Students will obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.	
<b>Topic: Space Systems-Stars and the Solar System</b>	
S.5.GS.11 Students will support an argument that the gravitational force exerted by Earth on objects is directed down.	
S.5.GS.12 Students will support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.	
S.5.GS.13 Students will represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.	
<b>Grade 3-5: Science (Engineering, Technology, and Applications of Science)</b>	
<b>Topic: Engineering Design</b>	
S.3-5.ETS.1 Students will define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.	
S.3-5.ETS.2 Students will generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.	
S.3-5.ETS.3 Students will plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.	

## Resources

[Resources, such as books, videos, etc., can be listed here and referenced in your Implementation notes. It is quite possible that one resource may address multiple standards.]