

# Parents' Guide for Grade 5 Science Review

## WHAT CAN A PARENT DO TO HELP HIS OR HER CHILD PREPARE FOR SUCCESS IN SCIENCE?

- Discuss appropriate expectations for your child and provide support in meeting those expectations.
- Work with your child's teacher to identify opportunities for enrichment or tutorials as needed.
- Encourage your child to observe and question what is happening in the world around them.
- Ask to see samples of your child's work and ask questions as to whether or not the work is satisfactory; is your child on track; and how can you help your child improve or excel in a particular area.
- Ask your child's teacher for guidance on finding resources to help your child learn science beyond the regular school day.
- Discuss science ideas with your child and have him or her explain these to you using pictures, graphs, etc.
- Urge your child to use logical arguments to defend his or her thinking and provide explanations supported by facts, details and accurate computations.

## WHERE CAN I FIND RESOURCES TO HELP MY CHILD IN SCIENCE?



- Scholastic Study Jams  
<http://studyjams.scholastic.com/studyjams/index.htm>
- Discovery Education  
<http://qcsnc.discoveryeducation.com/>
- PBS Learning Media <http://wlm.pbslearningmedia.org/>
- Interactive Science Sites  
<http://interactivesites.weebly.com/science.html>

## GRADE 5 - SCIENCE EOG

The EOG typically has 60 questions – all multiple choice. Achievement levels of 3, 4 or 5 indicate a passing score on the Science EOG.

Here are some questions that the NC Department of Instruction have provided that are similar to what students will see on their EOG for each unit/topic of study.

NC EOG Science Released Test Items:

<http://www.dpi.state.nc.us/docs/accountability/testing/releasedforms/g5scipp.pdf>

Here's a brief description of the science units students have studied this year:

5 <sup>th</sup> Grade	
Unit One <b>Predicting Weather</b>	Understand weather patterns and weather events. Then making connections to how it affects our local weather.
Unit Two <b>Thermal Energy</b>	How the Sun's energy affects the processes of the water cycle and ways heat moves between objects.
Unit Three <b>Matter</b>	The weight and properties of matter before and after a change occurs. How heating and cooling affects matters and how it's used.
Unit Four <b>Human Body Systems</b>	The main body systems, how both single cell and multicellular living things are capable of surviving. How organisms differ from their parents.
Unit Five <b>Forces and Motion</b>	Forces and motion and the relationships between gravity, friction and mass.
Unit Six <b>Interdependence of Plants and Animals</b>	The interdependence of plants and animals in their environment.

## ADDITIONAL ACADEMIC PREPARATION

- Make sure your child eats and rests well the night before the test
- Make sure your child is on-time the day of the test
- Use flash cards to review concepts and vocabulary before the test
- Reduce anxiety by reminding your child to do his or her best, but not with daily reminders about expected performance
- The day of the test, tell your child, "You are prepared and ready!" to send them off on a positive note

## TEST TAKING STRATEGIES

- Read all directions carefully
- Skim questions to attempt identifying key concepts
- Use the process of elimination on multiple choice questions
- If you are stuck on a question, move on and return to it later
- Take time to answer all questions. A blank response is the same as an incorrect response

# Parents' Guide for Grade 5 Science Review

## 5<sup>th</sup> Grade Science Essential Standards

### Physical Science

#### **Force and Motion - Understand force, motion and the relationship between them.**

5.P.1.1	Explain how factors such as gravity, friction, and change in mass affect the motion of objects.
5.P.1.2	Infer the motion of objects in terms of how far they travel in a certain amount of time and the direction in which they travel.
5.P.1.3	Illustrate the motion of an object using a graph to show a change in position over a period of time.
5.P.1.4	Predict the effect of a given force or a change in mass on the motion of an object.

#### **Matter Properties and Change - Understand the interactions of matter and energy and the changes that occur.**

5.P.2.1	Explain how the sun's energy impacts the processes of the water cycle (including evaporation, transpiration, condensation, precipitation and runoff).
5.P.2.2	Compare the weight of an object to the sum of the weight of its parts before and after an interaction.
5.P.2.3	Summarize properties of original materials, and the new material(s) formed, to demonstrate that a change has occurred.

#### **Energy: Conservation and Transfer - Explain how the properties of some materials change as a result of heating and cooling.**

5.P.3.1	Explain the effects of the transfer of heat (either by direct contact or at a distance) that occurs between objects at different temperatures. (conduction, convection or radiation)
5.P.3.2	Explain how heating and cooling affect some materials and how this relates to their purpose and practical applications.

### Earth Science

#### **Earth Systems, Structures and Processes - Understand weather patterns and phenomena, making connections to the weather in a particular place and time.**

5.E.1.1	Compare daily and seasonal changes in weather conditions (including wind speed and direction, precipitation, and temperature) and patterns.
5.E.1.2	Predict upcoming weather events from weather data collected through observation and measurements.
5.E.1.3	Explain how global patterns such as the jet stream and water currents influence local weather in measurable terms such as temperature, wind direction and speed, and precipitation.

### Life Science

#### **Structures and Functions of Living Organisms - Understand how structures and systems of organisms (to include the human body) perform functions necessary for life.**

5.L.1.1	Explain why some organisms are capable of surviving as a single cell while others require many cells that are specialized to survive.
5.L.1.2	Compare the major systems of the human body (digestive, respiratory, circulatory, muscular, skeletal, and cardiovascular) in terms of their functions necessary for life.

#### **Ecosystems - Understand the interdependence of plants and animals with their ecosystem.**

5.L.2.1	Compare the characteristics of several common ecosystems, including estuaries and salt marshes, oceans, lakes and ponds, forests, and grasslands.
5.L.2.2	Classify the organisms within an ecosystem according to the function they serve: producers, consumers, or decomposers (biotic factors).
5.L.2.3	Infer the effects that may result from the interconnected relationship of plants and animals to their ecosystem.

#### **Evolution and Genetics - Understand why organisms differ from or are similar to their parents based on the characteristics of the organism.**

5.L.3.1	Explain why organisms differ from or are similar to their parents based on the characteristics of the organism.
5.L.3.2	Give examples of likenesses that are inherited and some that are not.

## Parents' Guide for Grade 5 Science Review

---