Assessment Rubric

	Excellent	Good	Satisfactory	Needs Improvement
Lesson Background (Reproducibles 1 and 2)	• Student demonstrates a complete understanding of background material through appropriate class discussion and participation • Student demonstrates a complete understanding of the appropriate vocabulary to use for lesson	• Student demonstrates an understanding of background material through appropriate class discussion and participation • Student demonstrates an understanding of the appropriate vocabulary to use for lesson	• Student demonstrates a limited understanding of background material through appropriate class discussion and participation • Student demonstrates a limited understanding of the appropriate vocabulary to use for lesson	• Student demonstrates a lack of understanding of background material through appropriate class discussion and participation • Student demonstrates a lack of understanding of the appropriate vocabulary to use for lesson
Lesson Activities (Reproducibles 3 and 4)	• Student remains completely on task and finishes activities in timely manner • Student completes activity with total accuracy and with full supporting, detailed information	• Student remains on task, but finishes activities with teacher's encouragement • Student completes activity with some accuracy and some supporting, detailed information	• Student struggles to stay on task, and finishes with difficulty • Student completes assignment with little accuracy and little supporting, detailed information	• Student lacks focus on task and does not complete activity • Student either does not complete assignment and/or lacks accuracy and/or supporting, detailed information

NATIONAL STANDARDS AND BENCHMARKS

NATIONAL STANDARDS	BENCHMARKS	LESSONS 1	2	3	4
SCIENCE					
Strand A: Science as Inquiry	**Grades 3–4, 5**				
Has ability to do scientific inquiry	Knows that scientific inquiry and research lead to answers and solutions to issues scientists try to solve	x	x	x	x
	Thinks critically and logically to make the relationships between evidence and explanations, i.e., to explain differences between myths and facts		x	x	x
Has understandings about scientific inquiry	Knows how questions are to be asked and answered that allow the student to find solutions to scientific investigations	x	x	x	x
Strand B: Physical Science	**Grades 3–4**				
Understands the properties of objects and materials	Knows that objects in space are made up of material that can be measured by size, weight, color, temperature, and ability to interact with other substances	x		x	x
	Knows that objects can exist in different states—i.e., solids, liquids, and gas	x			x
Understands the position of and motions of objects	Knows how objects move through space relative to another object, i.e., behind, in front of, through, over, under, etc.	x	x	x	x
	Grade 5				
Understands the motion of objects in relation to the forces applied on that object	Knows ways in which object's motion is affected by natural and physical forces being applied to it, i.e., gravity, centrifugal force, and inertial forces	x	x	x	x
Strand D: Earth and Space Science	**Grades 3–4**				
Understands the objects in the sky	Knows the properties, locations, and movements of objects in the sky due to apparent observations	x	x	x	x
	Knows that objects in the sky have patterns of movements.	x	x	x	x
	Grade 5				
Understands the Earth's place in the Solar System	Knows the Earth's place in the Solar System in relation to the objects in the Solar System and universe, i.e., the Sun, Moon, planets, asteroids, comets, black holes, etc.	x	x	x	x
	Knows that events in the past have been influenced by occasional catastrophes, i.e., impacts by asteroids or comets		x	x	x
Strand E: Science and Technology	**Grades 3–4**				
Understands that science and technology work together	Knows that scientists use teamwork and technology to make better observations about the universe	x	x	x	x
	Knows that science is one way of answering questions and explaining the natural world	x	x	x	x
	Grade 5				
Has basic understandings about science and technology	Knows that scientific inquiry and technological design have similarities and differences, and one tends to drive the other further in advancements in pursuit of finding solutions to scientific research		x	x	x
Strand G: History and Nature of Science	**Grade 3–4, 5**				
Understands that science is a human endeavor	Knows that science and technology have been practiced for a long time, and that there is much more about the Solar System and universe that needs to be researched, and in that, science will never be finished	x	x	x	x
LANGUAGE ARTS	**Grades 3–4, 5**				
1. Uses general skills and strategies to acquire new information	Knows how to use appropriate reading skills to interpret and comprehend scientific material	x	x	x	x
4. Use of spoken, written language to communicate effectively with a variety of audiences and for different purposes	Knows how to listen and respond to information and questions discussed during lesson	x	x	x	x
	Knows how to communicate through speaking and in written form to effectively present conclusions and theories	x	x	x	x
5. Uses a wide range of strategies during the writing process appropriately to communicate with different audiences for a variety of purposes	Knows how to communicate and use the written form to present science-based answers to scientific inquiries			x	x
8. Uses technological and information resources for research purposes	Knows how and where to find appropriate research material for scientific inquiry, i.e., texts, Internet, etc.	x	x	x	x

Sources:
NCTE—The National Council of Teachers of English
www.ncte.org/about/over/standards/110846.htm
IRA—International Reading Association
www.reading.org/resources/issues/reports/learning_standards.html
NSTA—National Science Teachers Association
National Science Education Standards
www.nap.edu/books/0309053269/html/103.html