

Promotion Benchmarks: Science 8

No.	Student Performance (see Physical Science Program of Studies for full description)	POS/SOL
1	Plan and conduct scientific investigations that fully incorporate the concepts and skills of scientific inquiry and experimental design and embrace the nature of science.	PS.1 a, b, c, d, e, g, h, i, j, k, n
2	Investigate and understand the characteristics, structure, and properties of the states of matter.	PS.2 a-f
3	Investigate and understand the basic structure of the atom and how historical models have been used to develop our understanding of atomic structure.	PS.3 a-b
4	Understand the organization of the periodic table and use the table to obtain information about the elements that comprise it.	PS.4 a-c
5	Investigate and understand that matter and energy can be changed in different ways (physical, chemical, and nuclear), but the total amount or mass and energy remains unchanged.	PS.5 a-c
6	Investigate and understand the states and forms of energy and how energy is transferred and transformed between them.	PS.6 a-b
7	Investigate and understand the processes that transfer energy between substances, practical and technological applications of thermal energy transfer, and the Celsius and Kelvin temperature scales.	PS.7 a-d
8	Investigate and understand the characteristics and technological applications of sound waves.	PS.8 a-d
9	Investigate and understand the nature of the electromagnetic spectrum and its technological applications in everyday life.	PS.9 a-c
10	Investigate and understand the scientific principles and technological applications of work, force and motion, applying mathematical concepts to solve basic problems to calculate speed, force, work and power.	PS.10 a-d
11	Investigate and understand the basic principles of electricity and magnetism and relate how they interact in motors and generators.	PS.11 a-c