

SCIENCE.4.2.B	analyze <u>data by identifying any significant features</u> , patterns, <u>or sourcesof error</u> ;	4.2.D	analyz eand interpret patternsto- constructreasonablexplanations from data that can be observedand measured	TheKnowledgeand Skillstatement4.3 wasdeveloped for explanations.
SCIENCE.4.2.C	usemathematicalculationsto comparepatternsand relationshipsand			
SCIENCE.4.2.D	evaluatea designor object usingcriteria.	4 .2E	perform repeated investigation to increase the reliability of results; and	
SCIENCE.4.3	Scientificand engineeringpractices.Thestudent developsevidencerbased explanationsand communicates indings.conclusionsand proposed solutions.The student is expected to:			
SCIENCE.4.3.A	developexplanationsand proposes olutions supported by data and models	4.2.D	analyzænd interpret patternsto_constructreasonablæxplanationsfrom data that can be observedand measured	Analyzingand interpreting data have been moved into 4.2.B.
SCIENCE.4.3.B	communicateexplanationsand solutions individually and collaboratively in a variety of settings and formats; and	4.2.F	communicatevalidoral and written resultssupported by data.	Studentsare now beingaskedto communicatenot only asscientistsbut alsoas engineers.
SCIENCE.4.3.C	<u>listen activelyto others' explanationso identify relevant</u> evidenceand engage respectfullyin scientificdiscussion	4.3.A	analyzepvaluate,and critique scientificexplanations by using evidence, logical reasoningand experimentaland observationalesting;	
SCIENCE.4.4	Scientificand engineeringractices.Thestudent knowsthe contributionsof scientistsand recognizes the importance of scientific research and innovation for society.Thestudent is expected to:	4.3.C	connectgraderlevelappropriatescienceconceptswith the history of sciencescience careers; and contributions of scientists.	
SCIENCE.4.4.A	explainhow scientificdiscoverieænd innovativesolutionsto problemsimpact sciencænd society:and			
SCIENCE.4.4.B	researchand exploreresourcesuchasmuseums libraries, professional organizationsprivate companies on line platforms, and mentors employed in a science technology, engineering and mathematics (STEM field to investigate <u>STEM careers</u> .			
SCIENCE.4.5	Recurring hemes and concepts. The student understands that recurring themes and concepts provide a framework for making connection sacross disciplines. The student is expected to:			
SCIENCE.4.5.A	identify and use patterns to explainscientific phenomenaor to designsolutions;			
SCIENCE.4.5.B	identify and investigate cause randeffect relationships to explain scientific phenomen cor analyzeproblems;			
SCIENCE.4.5.C	usescale.proportion, and quantity to describe.compare.or model different. svstems;			
SCIENCE.4.5.D	examineand model the parts of a systemand their interdependencen the function of the system;			
SCIENCE.4.5.E	investigate the flow of energy and cycling of matter through systems;			
SCIENCE.4.5.F	explainthe relationshipbetween the structure and function of objects.organisms, and systems and			
SCIENCE.4.5.G	explainhow factorsor conditionsimpactstability and changein objects.organisms. and systemstale:90;190;190;171_0 1 Tfc(factors)Tj /T1_0 1 Tf ()Tj /TT1	1 Tf 3.035 0 Td (si9_	0 1 Tf ()Tj /TT1 1 Tf 3.146 0 Tdbeg 0 Td 283)Tj /TT1 a0 1 Tf ()Tj /TT1 1 Tf 3.035	0 TTf