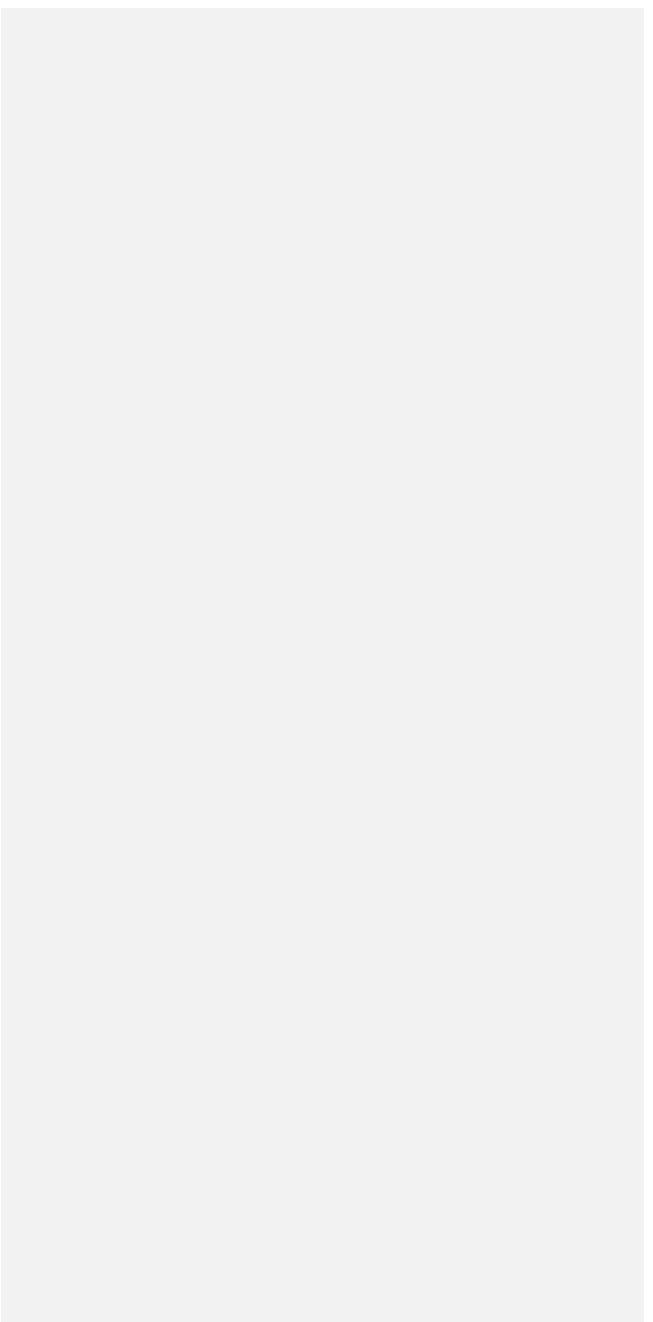


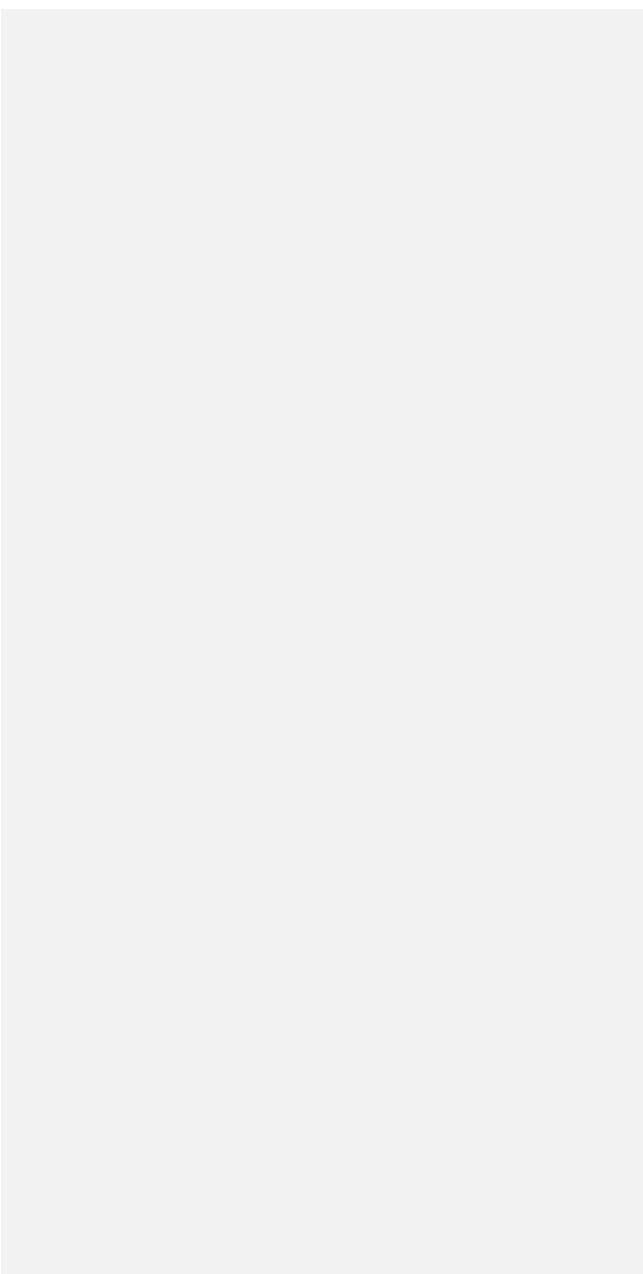
2021 Knowledge and

SCIENCE.3.2	<p><u>Scientific and engineering practices</u>: The student analyzes and interprets data to derive meaning; identify features and patterns; and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:</p> <p>of ot.4tTT4s203>Tj f 5.448 re f 329.88 22-8.16 0 TD 20 TD (student8 22-89.88 r TD 20 TD (9.o1 Tf o630ag .u98 7.08 re f6 -80003>Tj /TT4 no>Tj /T95TD (recofstifie5evidence)Tj /TT3 1 Tf 3.6475 0 TD <0372TT4 1 Tf -23.4629 -1.3088 TD</p>	3.3	<p><u>Scientific investigation and reasoning</u>: The student knows that information, critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. The student is expected to:</p>	
SCIENCE.3.2.A	<p><u>identify advantages and limitations of models such as their size, scale, properties, and materials;</u></p>			
SCIENCE.3.2.B	<p><u>analyze data by identifying any significant features, patterns, or sources of error;</u></p>	3.2.D	<p><u>analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations;</u></p>	The Knowledge and Skill statement 3.3 was developed for explanations.
SCIENCE.3.2.C	<p><u>use mathematical calculations to compare patterns and relationships;</u> and</p>			
SCIENCE.3.2.D	<p><u>evaluate a design or object using criteria.</u></p>	3.2.E	<p><u>demonstrate that repeated investigation may increase the reliability of results; and</u></p>	
SCIENCE.3.3	<p><u>Scientific and engineering practices</u>: The student develops evidence based explanations and communicates findings, conclusions and proposed solutions. The student is expected to:</p>			
SCIENCE.3.3.A	<p><u>develop explanations and proposes solutions supported by data and models;</u></p>	3.2.D	<p><u>analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations;</u></p>	Analyzing and interpreting data have been moved into 3.2.B.
SCIENCE.3.3.B	<p><u>communicate explanations and solutions individually and collaboratively in a variety of settings and formats;</u> and</p>	3.2.F	<p><u>communicate valid conclusions in both written and verbal forms;</u> and</p>	Students are now being asked to communicate not only as scientists but also as engineers.
SCIENCE.3.3.C	<p><u>listen actively to others' explanations to identify relevant evidence and engage respectfully in scientific discussion.</u></p>	3.3.A	<p><u>analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning, and experimental and observational testing;</u></p>	
SCIENCE.3.4	<p><u>Scientific and engineering practices</u>: The student knows the contributions of scientists and</p>			

SCIENCE.3.5.C



SCIENCE.3.8.B



SCIENCE.3.12.D identify

