#### Students will:

<b>8-1:</b> Analyze patterns within the periodic table to construct models (e.g., molecular-level models, including drawings;					
computer representations) that illustrate the structure, composition, and characteristics of atoms and molecules.  0 = Rarely adheres to the criteria  1 = Occasionally adheres to the criteria  2 = Sometimes adheres to the criteria					
3= Adheres to the criteria $4=$ Exceeds the criteria	neres	to the	crite	ria	
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
1. Grade appropriate evidence of the science and engineering practices (SEP) is evident.					
2. Grade appropriate evidence of the crosscutting concepts (CCC) is evident.					
3. Grade appropriate evidence that the disciplinary core idea ( <b>DCI</b> ) is evident.					
4. Materials focus on an integration of SEP's <b>and</b> CCC's into the in-depth learning of the DCI.					
5. Learning experiences fit together coherently and help students develop proficiency on this standard.					
6. Learning opportunities include instructional strategies that facilitate three-dimensional					
learning in an integrated fashion to support making sense of phenomena and/or					
designing solutions to problems through inquiry and engineering design experiences.					
7. Integrates engineering and technology as significant elements in the learning experiences.					
8. Provides relevant grade-appropriate connections to the math and ELA standards.					
☐ (a) Math Standards Connections Visible					
☐ (b) ELA Standards Connections Visible					
9. Provides scaffolded supports for teachers to facilitate learning of the practices so that					
students are increasingly responsible for making sense of phenomena and/or designing					
solutions to problems.					
10. Provides opportunities for grade-appropriate scientific discourse, scientific writing, and academic vocabulary in the context of the learning experience.					
11. Adheres to safety rules and emphasizes the importance of safety in science procedures, labs, and experiments.					
		ı			
STEP 1: Tabulate the total points for each column. Add column totals and transfer to					
compilation form					
<u> </u>					
Documentation of how the standard is met. Cite examples from the material (chapter and page n	umb	ers O	R mo	dule	
and tab name)					
Portions of the standard that are missing or not well developed in the instructional material (if ar	ny):				
	<i>3</i> /				
Comments:					

#### Students will:

<b>8-2</b> : Plan and carry out investigations to generate e	vidence supporting the claim that of	one pure substance can be
listinguished from another based on characteristic	properties.	

0 = Rarely adheres to the criteria 1 = Occasionally adheres to the criteria 2 = Sometimes adheres to the criteria 3 = Adheres to the criteria 4 = Exceeds the criteria						
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4	
1. Grade appropriate evidence of the science and engineering practices ( <b>SEP</b> ) is evident.						
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8. Provides relevant grade-appropriate connections to the math and ELA standards.						
(a) Math Standards Connections Visible						
(b) ELA Standards Connections Visible						
<ol> <li>Provides scaffolded supports for teachers to facilitate learning of the practices so that students are increasingly responsible for making sense of phenomena and/or designing solutions to problems.</li> </ol>						
10. Provides opportunities for grade-appropriate scientific discourse, scientific writing, and						
academic vocabulary in the context of the learning experience.						
11. Adheres to safety rules and emphasizes the importance of safety in science procedures,						
labs, and experiments.						
STEP 1: Tabulate the total points for each column. Add column totals and transfer to				I		
compilation form						
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Documentation of how the standard is met. Cite examples from the material (chapter and page no and tab name)	111100	ers O	K IIIO	dule		
Portions of the standard that are missing or not well developed in the instructional material (if an	y):					
Comments:						

#### Students will:

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8-3: Construct explanations based on evidence from investigations to differentiate among compo	ound	s, mi	xtures	s, and	ĺ
solutions. a. Collect and analyze information to illustrate how synthetic materials (e.g., medicine					
alternative fuels, plastics) are derived from natural resources and how they impact society.					
0 = Rarely adheres to the criteria $1 = Occasionally adheres to the criteria$ $2 = Sometimes adheres to the criteria$ $4 = Exceeds the criteria$	neres	to the	crite	ria	
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
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6. Learning opportunities include instructional strategies that facilitate three-dimensional	1				
learning in an integrated fashion to support making sense of phenomena and/or					
designing solutions to problems through inquiry and engineering design experiences.					
7. Integrates engineering and technology as significant elements in the learning experiences.					
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(a) Math Standards Connections Visible	-		<u> </u>		
☐ (b) ELA Standards Connections Visible					
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solutions to problems.					
10. Provides opportunities for grade-appropriate scientific discourse, scientific writing, and					
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labs, and experiments.					
STEP 1: Tabulate the total points for each column. Add column totals and transfer to compilation form					
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Documentation of how the standard is met. Cite examples from the material (chapter and page n and tab name)	umb	ers O	K mo	auie	
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Portions of the standard that are missing or not well developed in the instructional material (if ar	ıy):				
Comments:					

#### Students will:

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<b>8-4:</b> Design and conduct an experiment to determine changes in particle motion, temperature, are substance when thermal energy is added to or removed from a system.	d sta	ite of	a pui	e	
0 = Rarely adheres to the criteria $1 = Occasionally adheres to the criteria$ $2 = Sometimes adheres to the criteria$ $4 = Exceeds the criteria$	neres	to the	crite	ria	
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
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<ul> <li>8. Provides relevant grade-appropriate connections to the math and ELA standards.</li> <li>(a) Math Standards Connections Visible</li> <li>(b) ELA Standards Connections Visible</li> </ul>					
9. Provides scaffolded supports for teachers to facilitate learning of the practices so that students are increasingly responsible for making sense of phenomena and/or designing solutions to problems.					
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11. Adheres to safety rules and emphasizes the importance of safety in science procedures, labs, and experiments.					
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STEP 1: Tabulate the total points for each column. Add column totals and transfer to compilation form					
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solutions to problems.					
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Documentation of how the standard is met. Cite examples from the material (chapter and page n and tab name)	umb	ers O	R mo	odule	
Portions of the standard that are missing or not well developed in the instructional material (if an	y):				
Comments:					

Textbook Series/Title:	Reviewer Initials
Textbook Series/Title:	Reviewer initials

#### Students will:

**8-5**: Observe and analyze characteristic properties of substances (e.g., odor, density, solubility, flammability, melting point, boiling point) before and after the substances combine to determine if a chemical reaction has occurred.

0 = Rarely adheres to the criteria $1 = Occasionally adheres to the criteria$ $2 = Sometimes adh$ $3 = Adheres to the criteria$ $4 = Exceeds the criteria$	eres	to the	criter	ia	
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
<ol> <li>Grade appropriate evidence of the science and engineering practices (SEP) is evident.</li> </ol>					
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Documentation of how the standard is met. Cite examples from the material (chapter and page no and tab name)	ımbe	ers O	R mo	dule	
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Comments:					

#### Students will:

<b>8-6:</b> Create a model, diagram, or d	ligital simulation to describe	conservation of mass in	a chemical reaction a	ınd explain
he resulting differences between p	products and reactants.			

0 = Rar	ely adheres to the criteria $1 = Occasionally$ adheres to the criteria $2 = Sometimes$ adh 3 = Adheres to the criteria $4 = Exceeds$ the criteria	eres	to the	crite	ria	
	Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
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STEP 1: Ta	abulate the total points for each column. Add column totals and transfer to n form					
Documentation of how the standard is met. Cite examples from the material (chapter and page numbers OR module and tab name)						
Portions of the standard that are missing or not well developed in the instructional material (if any):						
Comments						

#### Students will:

releases or absorbs thermal energy by chemical reactions (e.g., dissolving ammonium chloride or calcium chloride in water) and modify the device as needed based on criteria (e.g., amount/concentration, time, temperature).*  1 = Occasionally adheres to the criteria
0 = Rarely adheres to the criteria 3 = Adheres to the criteria 4 = Exceeds the criteria  Place a check in the appropriate box for each of the criteria after review  0 1 2 3 4  1. Grade appropriate evidence of the science and engineering practices (SEP) is evident.  2. Grade appropriate evidence of the crosscutting concepts (CCC) is evident.  3. Grade appropriate evidence that the disciplinary core idea (DCI) is evident.  4. Materials focus on an integration of SEP's and CCC's into the in-depth learning of the DCI.  5. Learning experiences fit together coherently and help students develop proficiency on this standard.  6. Learning opportunities include instructional strategies that facilitate three-dimensional learning in an integrated fashion to support making sense of
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STEP 1: Tabulate the total points for each column. Add column totals and transfer to
compilation form
Documentation of how the standard is met. Cite examples from the material (chapter and page numbers OR module
and tab name)
Portions of the standard that are missing or not well developed in the instructional material (if any):
Comments:

#### Students will:

**8-8:** Use Newton's first law to demonstrate and explain that an object is either at rest or moves at a constant velocity unless acted upon by an external force (e.g., model car on a table remaining at rest until pushed).

0 = Rarely adheres to the criteria 1 = Occasionally adheres to the criteria 2 = Sometimes adheres to the criteria 3 = Adheres to the criteria 4 = Exceeds the criteria						
	Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
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STEP 1: Ta	abulate the total points for each column. Add column totals and transfer to a form					
Documentation of how the standard is met. Cite examples from the material (chapter and page numbers OR module and tab name)						
Portions of the standard that are missing or not well developed in the instructional material (if any):						
Comments						

#### Students will:

8-9: Use Newton's second law to demonstrate and explain how changes in an object's motion depend on the sum of									
the external forces on the object and the mass of the object (e.g., billiard balls moving when hit with a cue stick).  0 = Rarely adheres to the criteria  1 = Occasionally adheres to the criteria  2 = Sometimes adheres to the criteria									
3= Adheres to the criteria $4=$ Exceeds the criteria									
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4				
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11. Adheres to safety rules and emphasizes the importance of safety in science procedures, labs, and experiments.									
STEP 1: Tabulate the total points for each column. Add column totals and transfer to compilation form									
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Documentation of how the standard is met. Cite examples from the material (chapter and page numbers OR module and tab name)									
Portions of the standard that are missing or not well developed in the instructional material (if any):									
Comments:									

#### Students will:

<b>8-10:</b> Use Newton's third law to design a model to demonstrate and explain the resulting motion of two							
colliding objects (e.g., two cars bumping into each other, a hammer hitting a nail).*							
0 = Rarely adheres to the criteria 1= Occasionally adheres to the criteria 2 = Sometimes adheres to the criteria 3= Adheres to the criteria 4 = Exceeds the criteria							
	Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4	
1.	Grade appropriate evidence of the science and engineering practices (SEP) is						
	evident.						
2.	Grade appropriate evidence of the crosscutting concepts (CCC) is evident.						
3.	Grade appropriate evidence that the disciplinary core idea ( <b>DCI</b> ) is evident.						
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6.	Learning opportunities include instructional strategies that facilitate three-						
	dimensional learning in an integrated fashion to support making sense of						
	phenomena and/or designing solutions to problems through inquiry and						
	engineering design experiences.						
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	<ul> <li>□ (a) Math Standards Connections Visible</li> <li>□ (b) ELA Standards Connections Visible</li> </ul>						
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10.	and academic vocabulary in the context of the learning experience.						
11	Adheres to safety rules and emphasizes the importance of safety in science						
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	r	l			l l		
STEP 1: Ta	abulate the total points for each column. Add column totals and transfer to						
compilation							
Documenta	tion of how the standard is met. Cite examples from the material (chapter and page nu	ımb	ers O	R mo	dule		
and tab nar	1 1 0						
Portions of	the standard that are missing or not well developed in the instructional material (if an	y):					
Comment							
Comments							

#### Students will:

**8-11:** Plan and carry out investigations to evaluate how various factors (e.g., electric force produced between two charged objects at various positions; magnetic force produced by an electromagnet with varying number of wire turns, varying number or size of dry cells, and varying size of iron core) affect the strength of electric and magnetic forces.

0 = Rarely adheres to the criteria 1 = Occasionally adheres to the criteria 2 = Sometimes adheres to the criteria

	3= Adheres to the criteria $4=$ Exceeds the criteria					
		0	1	2	3	4
1.	Grade appropriate evidence of the science and engineering practices ( <b>SEP</b> ) is evident.					
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	· /					
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Documenta and tab nar	tion of how the standard is met. Cite examples from the material (chapter and page nume)	ımbe	ers O	R mo	dule	
Portions of	the standard that are missing or not well developed in the instructional material (if an	y):				
Comments						

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Textbook Series/Title: \_\_\_\_\_

#### Students will:

**8-12:** Construct an argument from evidence explaining that fields exist between objects exerting forces on each other (e.g., interactions of magnets, electrically charged strips of tape, electrically charged pith balls, gravitational pull of the moon creating tides) even when the objects are not in contact.

0 = Rare	by adheres to the criteria $1 = 0$ ccasionally adheres to the criteria $2 = 0$ ccasionally adheres to the criteria	riteri	a			
	3= Adheres to the criteria 4 = Exceeds the criteria  Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
1.	Grade appropriate evidence of the science and engineering practices (SEP) is	0	1		J	4
	evident.					
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Portions of	the standard that are missing or not well developed in the instructional material (if any	y):				
Comments:						

Students will:					
8-13: Create and analyze graphical displays of data to illustrate the relationships of kinetic energ	y to	the n	nass a	nd	
	lf ba	ll, ro	lling	simil	ar
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	ieres	to the	crite	11a	
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
Grade appropriate evidence of the science and engineering practices (SEP) is evident					
* * *					
4. Materials focus on an integration of SEP's <b>and</b> CCC's into the in-depth learning of					
5. Learning experiences fit together coherently and help students develop proficiency					
6. Learning opportunities include instructional strategies that facilitate three-dimensional learning in an integrated fashion to support making sense of phenomena and/or designing solutions to problems through inquiry and engineering design experiences.					
7. Integrates engineering and technology as significant elements in the learning experiences.					
<ul> <li>8. Provides relevant grade-appropriate connections to the math and ELA standards.</li> <li>(a) Math Standards Connections Visible</li> <li>(b) ELA Standards Connections Visible</li> </ul>					
<ol> <li>Provides scaffolded supports for teachers to facilitate learning of the practices so that students are increasingly responsible for making sense of phenomena and/or designing solutions to problems.</li> </ol>					
10. Provides opportunities for grade-appropriate scientific discourse, scientific writing, and academic vocabulary in the context of the learning experience.					
11. Adheres to safety rules and emphasizes the importance of safety in science procedures, labs, and experiments.					
STEP 1: Tabulate the total points for each column. Add column totals and transfer to compilation form					
		<u> </u>	<u>I</u>		
8-13: Create and analyze graphical displays of data to illustrate the relationships of kinetic energy to the mass and speed of an object (e.g., riding a bicycle at different speeds, hitting a table tennis ball versus a golf ball, rolling sit toy cars with different masses down an incline).  0 = Rarely adheres to the criteria	dule				
Portions of the standard that are missing or not well developed in the instructional material (if an	y):				
Comments:					

#### Students will:

**8-14:** Use models to construct an explanation of how a system of objects may contain varying types and amounts of potential energy (e.g., observing the movement of a roller coaster cart at various inclines, changing the tension in a rubber band, varying the number of batteries connected in a series, observing a balloon with static electrical charge being brought closer to a classmate's hair).

0 = Rarely adheres to the criteria $1 = Occasionally adheres to the criteria$ $2 = Sometimes adheres$	orog	to the	orito	rio	
0 = Karery adheres to the criteria $1 = Occasionary adheres to the criteria$ $2 = Sometimes adheres$ $3 = Adheres to the criteria$ $4 = Exceeds the criteria$	ieres	to the	crite	па	
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
1. Grade appropriate evidence of the science and engineering practices (SEP) is					
evident.					
2. Grade appropriate evidence of the crosscutting concepts (CCC) is evident.					
3. Grade appropriate evidence that the disciplinary core idea ( <b>DCI</b> ) is evident.					
4. Materials focus on an integration of SEP's <b>and</b> CCC's into the in-depth learning of the DCI.					
<ol> <li>Learning experiences fit together coherently and help students develop proficiency on this standard.</li> </ol>					
6. Learning opportunities include instructional strategies that facilitate three-					
dimensional learning in an integrated fashion to support making sense of					
phenomena and/or designing solutions to problems through inquiry and					
engineering design experiences.	<u> </u>				
<ol> <li>Integrates engineering and technology as significant elements in the learning experiences.</li> </ol>					
8. Provides relevant grade-appropriate connections to the math and ELA standards.					
☐ (a) Math Standards Connections Visible					
☐ (b) ELA Standards Connections Visible					
9. Provides scaffolded supports for teachers to facilitate learning of the practices so					
that students are increasingly responsible for making sense of phenomena and/or					
designing solutions to problems.	—				
10. Provides opportunities for grade-appropriate scientific discourse, scientific writing,					
and academic vocabulary in the context of the learning experience.	$\vdash$				
11. Adheres to safety rules and emphasizes the importance of safety in science procedures, labs, and experiments.					
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STEP 1: Tabulate the total points for each column. Add column totals and transfer to	-				
compilation form					
Compilation form					
Documentation of how the standard is met. Cite examples from the material (chapter and page n	umh	ers O	R mc	dule	
and tab name)	anno	C15 O	IX IIIC	duic	
Portions of the standard that are missing or not well developed in the instructional material (if ar	iy):				
Comments:					

\_\_\_\_\_ Reviewer Initials\_\_\_\_\_

Textbook Series/Title: \_\_\_\_\_

#### Students will:

**8-15**: Analyze and interpret data from experiments to determine how various factors affect energy transfer as measured by temperature (e.g., comparing final water temperatures after different masses of ice melt in the same volume of water with the same initial temperature, observing the temperature change of samples of different materials with the same mass and the same material with different masses when adding a specific amount of energy).

0 = Rarely adheres to the criteria 1 = Occasionally adheres to the criteria 2 = Sometimes adheres to the criteria 3 = Adheres to the criteria 4 = Exceeds the criteria						
	Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
1.	Grade appropriate evidence of the science and engineering practices (SEP) is					
	evident.					
2.	Grade appropriate evidence of the crosscutting concepts (CCC) is evident.					
3.	Grade appropriate evidence that the disciplinary core idea ( <b>DCI</b> ) is evident.					
4.	Materials focus on an integration of SEP's <b>and</b> CCC's into the in-depth learning of the DCI.					
5.	Learning experiences fit together coherently and help students develop proficiency on this standard.					
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	dimensional learning in an integrated fashion to support making sense of					
	phenomena and/or designing solutions to problems through inquiry and					
	engineering design experiences.					
	Integrates engineering and technology as significant elements in the learning experiences.					
8.	Provides relevant grade-appropriate connections to the math and ELA standards.					
	(a) Math Standards Connections Visible					
	☐ (b) ELA Standards Connections Visible					
9.	Provides scaffolded supports for teachers to facilitate learning of the practices so					
	that students are increasingly responsible for making sense of phenomena and/or					
10	designing solutions to problems.					
10.	Provides opportunities for grade-appropriate scientific discourse, scientific writing,					
1.1	and academic vocabulary in the context of the learning experience.					
11.	Adheres to safety rules and emphasizes the importance of safety in science					
	procedures, labs, and experiments.					
STED 1. To	shulate the total points for each column. Add column totals and transfer to		l	l	l	
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Portions of	the standard that are missing or not well developed in the instructional material (if an	y):				
Comments						

\_\_\_\_\_ Reviewer Initials\_\_\_\_\_

Textbook Series/Title: \_\_\_\_\_

#### Students will:

<b>8-16</b> :	Apply the law of conservation of	of energy to develop arguments support	ing the claim that when the kinetic energy of
an ob	ject changes, energy is transferre	ed to or from the object (e.g., bowling ba	all hitting pins, brakes being applied to a
car).			
0	- Devaly adheres to the criteria	1 - Occasionally adheres to the criteria	2 - Comptimes adheres to the criteria

0 = Rarely adheres to the criteria 1= Occasionally adheres to the criteria 2 = Sometimes adheres to the criteria 3= Adheres to the criteria 4 = Exceeds the criteria						
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4	
1. Grade appropriate evidence of the science and engineering practices (SEP) is						
evident.						
2. Grade appropriate evidence of the crosscutting concepts (CCC) is evident.						
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and/or designing solutions to problems through inquiry and engineering design experiences.						
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8. Provides relevant grade-appropriate connections to the math and ELA standards.						
<ul> <li>(a) Math Standards Connections Visible</li> <li>(b) ELA Standards Connections Visible</li> </ul>						
9. Provides scaffolded supports for teachers to facilitate learning of the practices so						
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10. Provides opportunities for grade-appropriate scientific discourse, scientific writing, and academic vocabulary in the context of the learning experience.						
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STEP 1: Tabulate the total points for each column. Add column totals and transfer to						
compilation form						
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Documentation of how the standard is met. Cite examples from the material (chapter and page nu and tab name)	mber	s OR	modi	ule		
Portions of the standard that are missing or not well developed in the instructional material (if any	7):					
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Comments:						

#### Students will:

8-17: Create and manipulate a model of a simple wave to predict and describe the relationships between wave properties								
(e.g., frequency, amplitude, and wavelength) and energy. a. Analyze and interpret data to illustrate an electromagnetic								
spectrum.								
0 = Rarely adheres to the criteria $1 = Occasionally adheres to the criteria$ $2 = Sometimes adheres$	es to	the c	riteria					
3= Adheres to the criteria $4=$ Exceeds the criteria								
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4			
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Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
<ol> <li>Grade appropriate evidence of the science and engineering practices (SEP) is evident.</li> </ol>					
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<ol> <li>Adheres to safety rules and emphasizes the importance of safety in science procedures, labs, and experiments.</li> </ol>					
STEP 1: Tabulate the total points for each column. Add column totals and transfer to compilation form					
Documentation of how the standard is met. Cite examples from the material (chapter and page nur and tab name)	nber	s OR	modi	ule	
Portions of the standard that are missing or not well developed in the instructional material (if any	):				
Comments:					

#### Students will:

8-18: Use models to demonstrate how light and sound waves differ in how they are absorbed, refle	ected	l, and	trans	mitte	d				
through different types of media.  0 = Rarely adheres to the criteria  1 = Occasionally adheres to the criteria  2 = Sometimes adheres to the criteria									
3= Adheres to the criteria $4=$ Exceeds the criteria	res to	the c	riteria	ı 					
Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4				
1. Grade appropriate evidence of the science and engineering practices ( <b>SEP</b> ) is evident.									
2. Grade appropriate evidence of the crosscutting concepts (CCC) is evident.									
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8. Provides relevant grade-appropriate connections to the math and ELA standards.  (a) Math Standards Connections Visible  (b) FLA Standards Connections Visible									
□ (b) ELA Standards Connections Visible									
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STEP 1: Tabulate the total points for each column. Add column totals and transfer to compilation form									
Documentation of how the standard is met. Cite examples from the material (chapter and page numerical tab name)	mber	s OR	mod	ule					
Portions of the standard that are missing or not well developed in the instructional material (if any	·):								
Comments:									

#### Students will:

8-19:	Integrate qualitative information to explain that common communication devices (e.g., cellular telephones, radios,
remote	e controls, Wi-Fi components, global positioning systems [GPS], wireless technology components) use
electro	omagnetic waves to encode and transmit information.

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	Place a check in the appropriate box for each of the criteria after review	0	1	2	3	4
1.	Grade appropriate evidence of the science and engineering practices ( <b>SEP</b> ) is evident.					
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11.	Adheres to safety rules and emphasizes the importance of safety in science procedures, labs, and experiments.					
STEP 1: Ta compilation	bulate the total points for each column. Add column totals and transfer to a form					
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Portions of	the standard that are missing or not well developed in the instructional material (if any	):				
Comments:						