SCIENCE STANDARDS (DCI)		Intro L	earning	Activities	s	Field L	earning A	Activities		Prot	ocols		Da	ta Analysi	is	Scier	ntific Pro	cess	SCIENCE STANDARDS (DCI)	1	Modelin	g				Plant-A	-Plant C	lassroom	Experi	ments			$\neg$
= covered directly in activities	)gy	ory	a	cle	вве	its	ree	ver	ion	Up	see	ols	SIS.	rea	SIS	SILIS	Plan	ons	= covered directly in activities	del	del	els	ion	ent	ent	ent	ent	Пс	Ē	П 7	SIS	ал	io
= addressed, but not directly covered.	nalc	Ste	Ga	fg S	Store	15	Ta T	Ś	lecti	Set Up	T P	otoc	naly	Α	naly	estic	E .	estic	= addressed, but not directly covered.	Model	Mo	Mod	inati	Æ	-Ē	-Ĕ	Æ	ition	Water	CO2	at le	Temperatur	irati
	τ'n	nta	Sels	pal	on S	mass	El al	Percent Cor	e Sele	Site	BSUT	s Pro	ssA	- Eg	A A	õ	žatic	rch Qu		tion	yele	£	e E	a. X. De	gxbe	,x be	s be	불	>	-	tosy	dua	Şesb
	acto	dve	Ę	85	Carb	Bio	- ₹	Per	Site	cle	Me	noə	Biomass Analy	alcu	A de	arch	estri	arch		nula	CC	Jio.	Seed Germin	Light Expenir	lo I	Water Experi	9	Ē			Pho	Ε.	Soil Respiration
	Paper Clip Factory Analogy	Carbon Cycle Adventure Story	Carbon Travels Ga	Getting to Know the Global Carb Cy	Pencil Carbon Sto		Allometry: Not A Llama Tree		Carbon Cycle	Carbon Cycle Site	How to Measure	and Herbaceous	Bie	mining Scale & Calculating Area		Research Qu	Develop Investigat	Rese		nass Accumulation	Global C Cycle Model	Plant Growth Model	Š	ĭĬ	Mineral Nutrition Expe	Wa	Dioxide Expe	Mineral Nut					S
	r.C.	Š	ర	NOW.	Per		etry		on C	rbor	£	1 He		ale		ng I	elop	ew I		S Ac	ಕ್ರ	置			ź		E I	~					
	Рарк	pou		o.K			<u>e</u>		arb	೮		an		Se		Posing 1	Ď	ing New		max					ners		Carbon						
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Grades 6-8																			Grades 6-8														
Physical Science																			Physical Science														
PS1. Matter and Its Interactions																			PS1. Matter and Its Interactions														
PS1.A Structure and Properties of Matter		✓	✓																PS1.A Structure and Properties of Matter														
PS1.B Chemical Reactions		/	/																PS1.B Chemical Reactions								1						
PS2. Motion and Stability: Forces and Interactions			-																PS2. Motion and Stability: Forces and Interactions														
PS2.A Forces and Motion				T T													Т		PS2.A Forces and Motion							- 1			$\overline{}$			$\overline{}$	_
PS2.B Types of Interactions																			PS2.B Types of Interactions													-	$\neg$
PS3. Energy																			PS3. Energy														
PS3.A Definitions of Energy														=T					PS3.A Definitions of Energy													$\equiv \top$	
PS3.B Conservation of Energy and Energy Transfer																			PS3.B Conservation of Energy and Energy Transfer														$\Box$
PS3. C Relationship between Energy and Forces																			PS3. C Relationship between Energy and Forces														
PS3.D Energy in Chemical Processes and Everyday Life		/	/																PS3.D Energy in Chemical Processes and Everyday Life														
PS4. Waves and their Applications in Technologies for		Ť	Ť			_													PS4. Waves and their Applications in Technologies for										_			$\rightarrow$	
Information Transfer																			Information Transfer														
PS4.A Wave Properties PS4.B Electromagnetic Radiation			-	+		+	-	$\vdash$	-		$\vdash$			<del></del>	-+	1	-+		PS4.A Wave Properties PS4.B Electromagnetic Radiation			$\vdash$		$\vdash$		-+		+	$\rightarrow$			-+	—
PS4.C Information Technology and Instrumentation																			PS4.C Information Technology and Instrumentation													-	
Life Science																			Life Science													_	
LS1. From Molecules to Organisms: Structures and																			LS1. From Molecules to Organisms: Structures and														
Processes			_		_	_			_				_						Processes														_
LS1.A Structure and Function							✓												LS1.A Structure and Function														
LS1.B Growth and Development of Organisms																			LS1.B Growth and Development of Organisms			1	1	/	1	1	✓	1	✓	1	/	1	1
LS1.C Organization for Matter and Energy Flow in		_	/																LS1.C Organization for Matter and Energy Flow in			/		/	1	1	1	1	1	1	/	1	1
Organisms		_	-			ļ													Organisms			-		-	✓	•	√	~	₩.	✓	•	·	<b>V</b>
LS1.D Information Processing LS2. Ecosystems: Interactions, Energy, and Dynamics						<u> </u>													LS1.D Information Processing LS2. Ecosystems: Interactions, Energy, and Dynamics													$\rightarrow$	
LS2.A Interdependent Relationships in Ecosystems		_		Т		П	-				П				Т	- 1			LS2.A Independent Relationships in Ecosystems	-		/	_		/	. 1	. 1	7	7	/	/	7	一
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LS2.B Cycle of Matter and Energy Transfer in Ecosystems		1	1	1															LS2.B Cycle of Matter and Energy Transfer in Ecosystems	✓	\												
LS2.C Ecosystem Dynamics, Functioning and Resilience		1																	LS2.C Ecosystem Dynamics, Functioning and Resilience	\	\	/	/	/	<	/	/	/	/	/	/	1	/
LS3. Heredity: Inheritance and Variation of Traits																			LS3. Heredity: Inheritance and Variation of Traits														
LS3.A Inheritance of Traits																			LS3.A Inheritance of Traits							- 1						$\equiv$	-
LS3.B Variation of Traits																			LS3.B Variation of Traits										$\perp$			$\perp$	$\equiv$
LS4. Biological Evolution: Unity and Diversity																			LS4. Biological Evolution: Unity and Diversity														
LS4.A Evidence of Common Ancestry and Diversity												1							LS4.A Evidence of Common Ancestry and Diversity														
LS4.B Natural Selection																			LS4.B Natural Selection														
LS4.C Adaptation																			LS4.C Adaptation														
LS4.D Biodiversity and Humans																			LS4.D Biodiversity and Humans														
Earth and Space Science																			Earth and Space Science														
ESS1.Earth's Place in the Universe																			ESS1.Earth's Place in the Universe														
ESS1.A The Universe and Its Stars	1					T								- 1	T		T		ESS1.A The Universe and Its Stars							T	T		1	T	T	$\overline{}$	
ESS1.B Earth and the Solar System																			ESS1.B Earth and the Solar System													ightharpoons	=
ESS1.C The History of Planet Earth						_													ESS1.C The History of Planet Earth		_				_							_	
ESS2 .Earth's System																			ESS2 .Earth's System														
ESS2.A Earth's Materials and Systems	V		1	1							l T			T	Ţ	I	Ţ		ESS2.A Earth's Materials and Systems		\			l T		Ţ	T	Т	Ţ	Π	Ţ	Γ	
ESS2.B Plate Techtonics and Large-Scale System Interactions						1									t				ESS2.B Plate Techtonics and Large-Scale System Interactions								- 1				- 1	-t	$\neg$
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ESS2.C The Roles of Water in Earth's Surface Processes		✓																	ESS2.C The Roles of Water in Earth's Surface Processes														
ESS2.D Weather and Climate																			ESS2.D Weather and Climate													$\Box$	
ESS2.E Biogeology				1							lΠ			T	T	T	T		ESS2.E Biogeology					lΠ		Ţ	1	Т	T	Π	T		1
ESS3. Earth and Human Activity																			ESS3. Earth and Human Activity														
ESS3.A Natural Resources		1	1	1		1							1	T	T				ESS3.A Natural Resources		1					T	T		T		T	$\neg$	$\neg$
ESS3.B Natural Hazards			Ť	ŕ	-	Ť	1	$\vdash$			$\vdash$		É		-+				ESS3.B Natural Hazards	-	Ť	$\vdash$		$\vdash$	_			-+	-+	-+		-+	$\dashv$
ESS3.C Human Impacts on Earth System		1	/	/											1				ESS3.C Human Impacts on Earth System	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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ESS3.D Global Climate Change				✓	Ц	✓		$\sqcup \sqcup$											ESS3.D Global Climate Change		1	$\sqcup \sqcup$		Ш									_
ETS1. Engineering Design																			ETS1. Engineering Design														
ETS1.A Defining and Delimiting Engineering Problems				<del>                                     </del>		1		$\vdash$	$\vdash$		$\vdash$			<del>- +</del>	-+				ETS1.A Defining and Delimiting Engineering Problems	_		-		$\vdash$	-		-	-+	-+	-+		-+	$\dashv$
ETS1.B Developing Possible Solutions	1			<u> </u>		✓	✓				$\sqcup$								ETS1.B Developing Possible Solutions	1	1	/		$\sqcup$								$-\!\!\!\!\!+$	
ETS1.C Optimizing the Design Solution	1					✓	✓								J				ETS.C Optimizing the Design Solution	1	1	1							J			- 1	

SCIENCE STANDARDS (DCI)	In	roducto	ry Learn	ing Activ	vities	Field Lo	arning A	Activities		Proto	cols		Dat	a Analys	sis	Scien	tific Pr	ocess	SCIENCE STANDARDS (DCI)	Mod	eling Act	tivities				Plant-A	-Plant (	Classroon	n Exper	iments			—
= covered directly in activities	ogy	Story	ame	bon	age.	nits	Free	ver	tion	.Up	sees	cols	ysis	rea	ysis	ions	Plan	ions	= covered directly in activities	odel	odel	dels	tion	ent	nent	nent	ent	II u	Er II	2 II	esis	ture	tion
= addressed, but not directly covered.	Anal	S ar	sls G	1 Car	Stor	D SS	Not A Llama Tre	Percent Cov	select	e Set	II e II	notor	Anal	ng /	Analy	nest	I I I	nesti	□ = addressed, but not directly covered.	m Mc	le Mo	Plant Growth Mode	mina	perin	perin	perin	perin	ıtritio	Water	CO2	synth	рега	spira
	tony	vent	Travels	iloba	npor	Biom	ALI	егсе	Site 9	e Sit	to Measure T	ons I	nass	culat	APP	ch Q	estigat	earch C		latic	Cycle	owth	Seed Germir	LightExperi	n Ex	т Ехрег	e Ex	reral Nutr			Photos	Ten	Soil Respin
	p Fac	le Ad	Carbon '	the Global (	Pencil Carbon		Not	_	ycle	Š	to N	pace	Bio	Z.		esea	Inve	Resea		cmm	Global C	E G	Seed	Ligh	trition	Water	ioxid	Miner			Δ.		S.
	Paper Clip Factory	Carbon Cycle Adv	Car	Know	Pen		Allometry: ]		Carbon Cycle	Carbon Cycle Site	How	and Herba		Scale & Calculating		ing Re	Develop Inv	New R		ss Accumulation	G	Pla			N N		Carbon Dioxide Expe	2					
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Grades 9-12												- 1							Grades 9-12	1				l .									
Physical Science																			Physical Science														
PS1. Matter and Its Interactions																			PS1. Matter and Its Interactions														
PS1.A Structure and Properties of Matter		✓																	PS1.A Structure and Properties of Matter														
PS1.B Chemical Reactions		✓	<u> </u>																PS1.B Chemical Reactions			Ш					✓						
PS2. Motion and Stability: Forces and Interactions PS2.A Forces and Motion	1	1	1	1	ı	ı	1		1	Т			-	Т		П			PS2. Motion and Stability: Forces and Interactions PS2.A Forces and Motion					П	1	-	1	-			1		
PS2.B Types of Interactions																			PS2.B Types of Interactions													$\dashv$	
PS3. Energy																			PS3. Energy														
PS3.A Definitions of Energy	$\vdash$	lacksquare	$ldsymbol{oxed}$								[	$\exists$			$\Box$				PS3.A Definitions of Energy		$\vdash$	$\Box$		LП							耳	二	
PS3.B Conservation of Energy and Energy Transfer	<u> </u>	✓	1	✓	<u> </u>	<u> </u>													PS3.B Conservation of Energy and Energy Transfer		<u> </u>	$\vdash$		<del> </del>									
PS3. C Relationship between Energy and Forces	-	<del>-</del>	<del>-</del>					$\vdash$				-+							PS3. C Relationship between Energy and Forces	<u> </u>	-	$\vdash$					_					$\longrightarrow$	
PS3.D Energy in Chemical Processes and Everyday Life PS4. Waves and their Applications in Technologies for		1	1	/															PS3.D Energy in Chemical Processes and Everyday Life PS4. Waves and their Applications in Technologies for			لبا		ш									
Information Transfer																			Information Transfer														
PS4.A Wave Properties PS4.B Electromagnetic Radiation															-				PS4.A Wave Properties PS4.B Electromagnetic Radiation													-+	
PS4.C Information Technology and Instrumentation																			PS4.C Information Technology and Instrumentation														
Life Science LS1. From Molecules to Organisms: Structures and																			Life Science LS1. From Molecules to Organisms: Structures and														
Processes																			Processes														
LS1.A Structure and Function							1												LS1.A Structure and Function														
LS1.B Growth and Development of Organisms																			LS1.B Growth and Development of Organisms			1		✓	1	✓	✓	✓	✓	✓	1	1	1
LS1.C Organization for Matter and Energy Flow in Organisms		1	1																LS1.C Organization for Matter and Energy Flow in Organisms														
LS1.D Information Processing																			LS1.D Information Processing														
LS2. Ecosystems: Interactions, Energy, and Dynamics																			LS2. Ecosystems: Interactions, Energy, and Dynamics														
LS2.A Interdependent Relationships in Ecosystems																			LS2.A Independent Relationships in Ecosystems	1													
LS2.B Cycle of Matter and Energy Transfer in Ecosystems		1	1	1															LS2.B Cycle of Matter and Energy Transfer in Ecosystems	1	1	1	✓	1	1	✓	✓	√	✓	1	1	1	✓
LS2.C Ecosystem Dynamics, Functioning and Resilience		1	1	✓															LS2.C Ecosystem Dynamics, Functioning and Resilience	1	1	1	✓	✓	✓	✓	1	✓	✓	✓	✓	1	
LS3. Heredity: Inheritance and Variation of Traits LS3.A Inheritance of Traits	1	1	1	1	ı	ı	1		1	Т			-	Т		П			LS3. Heredity: Inheritance and Variation of Traits LS3.A Inheritance of Traits					П	1	-	1	-			1		
LS3.B Variation of Traits																			LS3.B Variation of Traits														
LS4. Biological Evolution: Unity and Diversity																			LS4. Biological Evolution: Unity and Diversity														
LS4.A Evidence of Common Ancestry and Diversity		<u> </u>																	LS4.A Evidence of Common Ancestry and Diversity														
LS4.B Natural Selection LS4.C Adaptation															-				LS4.B Natural Selection LS4.C Adaptation													$\dashv$	
LS4.D Biodiversity and Humans							/												LS4.D Biodiversity and Humans													-+	
Earth and Space Science																			Earth and Space Science														
ESS1.Earth's Place in the Universe																			ESS1.Earth's Place in the Universe														
ESS1.A The Universe and Its Stars																			ESS1.A The Universe and Its Stars													=	_
ESS1.B Earth and the Solar System ESS1.C The History of Planet Earth	<del>                                     </del>	1	1		<b>-</b>	<b>-</b>		$\vdash$											ESS1.B Earth and the Solar System ESS1.C The History of Planet Earth	<u> </u>	-	$\vdash$		$\vdash$								$\longrightarrow$	
ESS2 .Earth's System																			ESS2 .Earth's System														
ESS2.A Earth's Materials and Systems		1	1	1										T	- 1	1			ESS2.A Earth's Materials and Systems		1												
ESS2.B Plate Techtonics and Large-Scale System Interactions			Ė																ESS2.B Plate Techtonics and Large-Scale System Interactions														
ESS2.C The Roles of Water in Earth's Surface Processes		1																	ESS2.C The Roles of Water in Earth's Surface Processes														
ESS2.D Weather and Climate				✓															ESS2.D Weather and Climate														
ESS2.E Biogeology		1	1	1	<u> </u>	<u> </u>													ESS2.E Biogeology														
ESS3. Earth and Human Activity																			ESS3. Earth and Human Activity							-		-					
ESS3.A Natural Resources	<u> </u>	<u> </u>	1	✓	<u> </u>	<u> </u>							✓						ESS3.A Natural Resources	✓	1	$\vdash$		<del> </del>									
ESS3.B Natural Hazards ESS3.C Human Impacts on Earth System		<b>l</b>	1	/				$\vdash$				-+			1				ESS3.B Natural Hazards ESS3.C Human Impacts on Earth System	/	1											$\dashv$	
ESS3.D Global Climate Change	<del>                                     </del>	<del>                                     </del>	Ť	1	<del>                                     </del>	<del>                                     </del>									-				ESS3.D Global Climate Change	<u> </u>	1											$\dashv$	_
ETS1. Engineering Design		<u> </u>																_	ETS1. Engineering Design		_												
ETS1.A Defining and Delimiting Engineering Problems																			ETS1.A Defining and Delimiting Engineering Problems													二	_
ETS1.B Developing Possible Solutions	1	<u> </u>	<u> </u>		<u> </u>	<u> </u>													ETS1.B Developing Possible Solutions	1	1	1											
ETS1.C Optimizing the Design Solution	✓	<u> </u>	<u> </u>		l	l	<u> </u>									i			ETS.C Optimizing the Design Solution	✓	✓	1		i									

Practices	1	Introd	luctory	Activities	6	Field I	Learning	Activitie		Protocols			D:	ata Anal	ysis	Scie	ntific P	rocess	Pr	actices	Mod	leling Ac	tivities				Plant	-A-Plant	Classro	m Expe	riments		
= covered directly in activities = addressed, but not directly covered.	Parer Clin Factory Analogy	Carbon Cycle Adventure Story		Carbon Travels Game Getting to Know the Global Carbon Cycle	Pencil Carbon Storace	reference control of the control of	Biomater: Not A I Jama Trae	Percent Cover	How to Measure Trees	Carbon Cycle Site Selection	Carbon Cycle Site Set Up	ree Shrub and Herbaceous Protocols	Biomass Analysis	termining Scale & Calculating Area	NPP Analysis	Posing Research Questions	Davidon Invastication Dlan	Develop Investigation rian	dentifying New Research Questions	= covered directly in activities = addressed, but not directly covered.	Biomass Accumulation Model	Global CCvele	Plant Growth Models	Seed Germination	Light Experiment	Mineral Nutrition Experiment	Water Experiment	Carbon Dioxide Experiment	Mineral Nutrition II	Water II	CO2	Photosynthesis	Temperature
Grades 6-12			<u> </u>									Ξ		č					Cre	ades 6-12													
Science & Engineering Practices																			Sci	ience & Engineering													
(NGSS) S1. Asking questions (for science) and defining		1,	,	1,	1	T	1,	T	T T	,		ı	1	1	Г	.,		1./	S1. /	actices (NGSS) Asking questions (for science) and defining	./	1	T	T	.,	.,		1./	.,		.,	1.	1 1
problems (for engineering).  S2. Developing and using models.	/	1	1										/			•		-		blems (for engineering).  Developing and using models.	/	./			•	•	•	•	•	•	•	•	•
S3. Planning and carrying out investigations.	•	•	•	-	.,		-				./		•				./	1	_	Planning and carrying out investigations.	1	./	1	,	.,	./	.,	.,			.,	.,	1 1
S4. Analyzing and interpreting data.	/	1	1	+	-	1	1	1		•	•	•	1	./	./		•	1	_		·	1	1	-	1	1	1	1	1	1	1	1	1 1
S5. Using mathematics and computational	_	•	Ť	./	.,	1	1	1	1		./		1	1	1		./	1	S5. 1	Using mathematics and computational	1	1	,		./		-	1	1	1		1	1 1
thinking.  S6. Constructing explanations (for science) and	-	1	./	-	•	·	•	-	•		•	-	_	•	-		•			king. Constructing explanations (for science) and	,	-	-			-	-	-	_	,	-	,	
designing solutions (for engineering).	,	-	•										•		•			-		igning solutions (for engineering).	*	~	₩.		,	·	·	·	,	v	4	,	
S7. Engaging in argument from evidence.  S8. Obtaining, evaluating, and communicating	-		1	+_	1													1		Engaging in argument from evidence.  Obtaining, evaluating, and communicating	_	+					·		·	·	·	·	
information.  Mathematics Practices (Common	L		_	<u> </u>		<u> </u>									<u> </u>				Ma	athematics Practices	V	~			V	~		~	~	~	-	V	<i>y</i>
M1. Makes sense of problems and persevere in		T	l		1	1,	1,	Т	,	1		Π		,		Т	,	T		ommon Core)  . Makes sense of problems and persevere in	,	,	,			П	Т	T	Т	Ι	I	Π	
solving them.  M2. Reason abstractly and quantitatively		-		· ·	,	·	1	-	,				1	,	,		-	<del> </del>	solv	ving them.  Reason abstractly and quantitatively	,	v	v		_	1	-	-	_	_	_	-	
M3. Construct viable arguments and critique the		1	-	_	_	-	-	-	-				-	-	-		,		M3.	. Construct viable arguments and critique	,	,	v		•	•	_	_	-	-	-	-	,
reasoning of others.  M4. Model with matematics.	_		•	-	1	-	-						_		_	1	•	+		reasoning of others.  Model with matematics.	1	·					1	1					
M5. Use appropriate tools strategically.	1			-	,	-	1				_	_	-		-	1		+	-	. Use appropriate tools strategically.	•	1			,	./	,	,	_		_	_	
M6. Attend to precision.	-			-	•	/	,		,		,	,		1		1		+	_	. Attend to precision.	,	-	,		,	1	,	1	,	,	,	,	1 1
M7. Look for and make use of structure.		,	./	-	1	-	-	,	,		•	•		•				1	_	Look for and make use of structure.	*	/	/		•	•	-	-	•	•	•	•	•
M8. Look for and express regularity in repeated			•	+	1	,		-	/									1	M8.	. Look for and express regularity in	./							1					
English Lanuage Arts Student																			En	aglish Lanuage Arts Student		•											
Capacities (Common Core)  E1. They demonstrate independence.		1/	П	Т	T	1/	1./	Π	1			./	1	Π	П	Т		Т		The demonstrate independence.	./	1./	1	Π			1	1./	1./	1	1	1./	1 1
E2. They build strong content knowledge.		1	1	1	+	1	1	1	1		_	_						+	_	They build strong content knowledge.	1	_	1		1	1	/	/	,	1	1	1	1 1
E3. They respond to the varing demands of		†	1	+	+	Ť	-		-			<u> </u>						+	E3.	They respond to the varing demands of	1	1	<del>                                     </del>		,	1	_	_	,	1	,	1	1 1
audience, task, purpose, and discipline.  E4. They comprehend as well as critique.	1	+	Ť	1	1	1	1	1	1						1	1	1	+		ience, task, purpose, and discipline.  They comprehend as well as critique.	1	1	1	1	_		-	<del> </del>	Ť	-		Ť	- 1
E5. They value evidence.		1	$\vdash$	1	+		1										-	+-	_	They value evidence.	1	1	1		_				1		1		1 1
E6. They use technology and digital media	1	+	1	+	1	1	1	1	1						1	1		+	E6.	They use technology and digital media	1	./	./	1	_	-	-	-	-	-	_	-	
strategically and capably.  E7. They come to understand other perspectives	1	1	<del>                                     </del>	_	1	+	-	1	_			-			1	1		+		tegically and capably.  They come to understand other	*			1			1	1	-			1	
and cultures.	Ĺ	1	<u> </u>	•		1			•	<b>l</b>		l			<u> </u>			1		spectives and cultures.				<u> </u>		<u> </u>	1		İ			<u> </u>	

Crosscutting Concepts	Int	troducto	ory Lear	ning Activ	ities	Field Lo	earning.	Activitie	s	Pro	ocols		1	Data An	alysis		Scientif	fic Proc	ess	Crosscutting Concepts	Mode	ling Act	ivities				Plant-	A-Plant	Classroo	m Exper	iments			
= covered directly in activities = addressed, but not directly covered.	Paper Clip Factory Analogy	Carbon Civila Advantura Gravi	Carbon Cycle Adventure Story Carbon Travels Game	Getting to Know the Global Carbon	Pencil Carbon Storage	Biomass Units	Allometry: Not A Llama Tree	Percent Cover	How to Measure Trees	Carbon Cycle Site Selection	Carbon Cycle Sie Set I'n	Trace Charles and Track and December 1	nec 3iiiub ailu 1010accous 1100ccois	Blomass Analysis	Determining Scale & Calculating Area	NPP Analysis	Posing Research Questions	Develop Investigation Plan	Identifying New Research Questions	= covered directly in activities = addressed, but not directly covered.	Biomass Accumulation Model	Global C Cycle Model	Plant Growth Models	Seed Germination	Light Experiment	Mineral Nutrition Experiment	Water Experiment	Carbon Dioxide Experiment	Mineral Nutrition II	Water II	CO2 II	Photosynthesis	Temperature	Soil Respiration
Grades 6-12																				Grades 6-12														
Cross Cutting Concepts																				Cross Cutting Concepts														
Patterns	/		1	<b>✓</b>			/	1	1	1		/								Patterns	✓	~	1											
Cause and Effect: Mechanism and Prediction	1	1	1																	Cause and Effect: Mechanism and Prediction	✓	/	>		<b>/</b>	1	>	>	<b>/</b>	1	1	1	<b>\</b>	1
Scale, Proportion, and Quantity	1			/	✓	1	1	✓	✓					1						Scale, Proportion, and Quantity	1	1	1		✓	✓	✓	✓	✓	✓	✓	✓	✓	1
Systems and Systems Models	1	1	1	1																Systems and Systems Models	1	1	>											
Energy and Matter: Flows, Cycles, and Conservation		1	1	1		✓														Energy and Matter: Flows, Cycles, and Conservation		1			1	1	1	1	1	•	1	1	1	1
Structure and Function							1													Structure and Function					✓	1	1	1	✓	1	1	1	1	1
Stability and Change	1		1	1											1					Stability and Change	1	/	/											
Science, Technology, Society, and the Environment																				Science, Technology, Society, and the Environment														
Interdependence of Science, Engineering, and Technology				1		1	1		1		/	1	1	1	1					Interdependence of Science, Engineering, and Technology	1	<	1							-		-		
Influence of Engineering, Technology, and Science on Society and the Natural World				1						1					1					Influence of Engineering, Technology, and Science on Society and the Natural World		1												