

**A Correlation of the  
Science and Technology for Children™ Curriculum  
to the  
Nebraska Sample K-12 Science Curriculum**

Prepared by Carolina Biological Supply Company

This document gives a quick visual guide to the alignment of Science and Technology for Children® (STC®) and Science and Technology Concepts for Middle Schools™ (STC/MS™) units with the Boston Public Schools Citywide Learning Standards and Curriculum Framework for Science. Although each STC and STC/MS unit was developed for use at a specific grade level, there is some flexibility in grade placement—any unit may be used a grade above or below the one for which it was developed. Because of this flexibility, many curriculum planners prefer to think of each unit as covering a three-level band of grades (as indicated in the chart below). In addition, STC/MS units can be used at grade 9 as well.

All fourth-grade through sixth-grade STC unit kits include a Discovery Deck, a set of extensions for the unit. When a Discovery Deck meets or helps to meet a learning standard, the abbreviation “DD” will follow the unit abbreviation.

**STC® and STC/MS™  
Recommended Grade Levels and Unit Abbreviations**

The National Science Resources Center (NSRC), developer of the STC and STC/MS programs, recommends the units be used within the following grade ranges.

	<b>Grades</b>	<b>Life and Earth Science</b>		<b>Physical Science and Technology</b>	
<b>STC</b>	K–2	<i>Organisms</i> (O)	<i>Weather</i> (W)	<i>Solids and Liquids</i> (SL)	<i>Comparing and Measuring</i> (CM)
	1–3	<i>The Life Cycle of Butterflies</i> (LCB)	<i>Soils</i> (S)	<i>Changes</i> (C)	<i>Balancing and Weighing</i> (BW)
	2–4	<i>Plant Growth and Development</i> (PGD)	<i>Rocks and Minerals</i> (RM)	<i>Chemical Tests</i> (CT)	<i>Sound</i> (So)
	3–5	<i>Animal Studies*</i> (AS)	<i>Land and Water*</i> (LW)	<i>Electric Circuits*</i> (EC)	<i>Motion and Design*</i> (MD)
	4–6	<i>Microworlds*</i> (Mw)	<i>Ecosystems*</i> (E)	<i>Food Chemistry*</i> (FC)	<i>Floating and Sinking*</i> (FS)
	5–7	<i>Experiments with Plants*</i> (EP)	<i>Measuring Time*</i> (MT)	<i>Magnets and Motors*</i> (MM)	<i>The Technology of Paper*</i> (TP)

\*Unit kit includes a Discovery Deck (DD).

\*\*STC/MS units may also be used at grade 9.

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## FIRST GRADE

### UNIFYING CONCEPTS AND PROCESSES IN SCIENCE

	First Grade				Second Grade			
	O	W	SL	CM	LCB	S	C	BW
Systems, order, and organization	•	•	•	•	•	•	•	•
Evidence, models, and explanation	•	•	•	•	•	•	•	•
Change, constancy, and measurement	•	•	•		•	•	•	•
Form and function	•	•			•	•	•	•

### SCIENCE AS INQUIRY

	First Grade				Second Grade			
	O	W	SL	CM	LCB	S	C	BW
Abilities necessary to do scientific inquiry	•	•	•	•	•	•	•	•
Understanding about scientific inquiry	•	•	•	•	•	•	•	•

### PHYSICAL SCIENCE

	First Grade				Second Grade			
	O	W	SL	CM	LCB	S	C	BW
Properties of objects and materials	•	•	•	•		•	•	•
Position and motion of objects		•	•			•	•	•
Light, heat, electricity, and magnetism			•					

### LIFE SCIENCE

	First Grade				Second Grade			
	O	W	SL	CM	LCB	S	C	BW
Characteristics of organisms	•				•	•		
Organisms and environments	•				•	•		

### EARTH AND SPACE SCIENCE

	First Grade				Second Grade			
	O	W	SL	CM	LCB	S	C	BW
Properties of earth materials		•				•		
Objects in the sky		•						
Changes in earth and sky		•						

### SCIENCE AND TECHNOLOGY

	First Grade				Second Grade			
	O	W	SL	CM	LCB	S	C	BW
Abilities of technological design	•	•	•	•	•	•	•	•
Understanding about science and technology	•	•	•	•	•	•	•	•

### SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES

	First Grade				Second Grade			
	O	W	SL	CM	LCB	S	C	BW
Personal health		•						

### HISTORY AND NATURE OF SCIENCE

	First Grade				Second Grade			
	O	W	SL	CM	LCB	S	C	BW
Science as a human endeavor	•	•	•	•	•	•	•	•

## SECOND GRADE

### UNIFYING CONCEPTS AND PROCESSES IN SCIENCE

	First Grade				Second Grade				Third Grade			
	O	W	SL	CM	LCB	S	C	BW	PGD	RM	CT	So
Systems, order, and organization	•	•	•	•	•	•	•	•	•	•	•	•
Evidence, models, and explanation	•	•	•	•	•	•	•	•	•	•	•	•
Change, constancy, and measurement		•	•	•	•	•	•	•	•	•	•	•
Form and function			•						•			•

### SCIENCE AS INQUIRY

	First Grade				Second Grade				Third Grade			
	O	W	SL	CM	LCB	S	C	BW	PGD	RM	CT	So
Abilities necessary to do scientific inquiry	•	•	•	•	•	•	•	•	•	•	•	•
Understanding about scientific inquiry	•	•	•	•	•	•	•	•	•	•	•	•

### PHYSICAL SCIENCE

	First Grade				Second Grade				Third Grade			
	O	W	SL	CM	LCB	S	C	BW	PGD	RM	CT	So
Properties of objects and materials	•	•	•	•		•	•	•	•	•	•	•
Position and motion of objects		•	•	•				•				•
Light, heat, electricity, and magnetism		•								•		

### LIFE SCIENCE

	First Grade				Second Grade				Third Grade			
	O	W	SL	CM	LCB	S	C	BW	PGD	RM	CT	So
Characteristics of organisms	•				•				•			
Organisms and environments	•				•	•			•			

### EARTH AND SPACE SCIENCE

	First Grade				Second Grade				Third Grade			
	O	W	SL	CM	LCB	S	C	BW	PGD	RM	CT	So
Properties of earth materials	•	•				•			•	•		
Objects in the sky		•							•			
Changes in earth and sky		•								•		

### SCIENCE AND TECHNOLOGY

	First Grade				Second Grade				Third Grade			
	O	W	SL	CM	LCB	S	C	BW	PGD	RM	CT	So
Abilities of technological design		•		•		•	•	•	•		•	•
Understanding about science and technology	•	•	•	•	•	•	•	•	•	•	•	•

### SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES

	First Grade				Second Grade				Third Grade			
	O	W	SL	CM	LCB	S	C	BW	PGD	RM	CT	So
Changes in environments	•	•				•			•			

### HISTORY AND NATURE OF SCIENCE

	First Grade				Second Grade				Third Grade			
	O	W	SL	CM	LCB	S	C	BW	PGD	RM	CT	So
Science as a human endeavor	•	•	•	•	•	•	•	•	•	•	•	•

**THIRD GRADE**

**UNIFYING CONCEPTS AND PROCESSES IN SCIENCE**

	Second Grade				Third Grade				Fourth Grade			
	LCB	S	C	BW	PGD	RM	CT	So	AS	LW	EC	MD
Systems, order, and organization	•		•	•	•	•	•	•	•	•	•	•
Evidence, models, and explanation	•	•	•	•	•				•	•	•	•
Change, constancy, and measurement		•	•	•		•	•	•	•	•	•	•
Form and function	•	•		•	•		•		•			•

**SCIENCE AS INQUIRY**

	Second Grade				Third Grade				Fourth Grade			
	LCB	S	C	BW	PGD	RM	CT	So	AS	LW	EC	MD
Abilities necessary to do scientific inquiry	•	•	•	•	•	•	•	•	•	•	•	•
Understanding about scientific inquiry	•	•	•	•	•	•	•	•	•	•	•	•

**PHYSICAL SCIENCE**

	Second Grade				Third Grade				Fourth Grade			
	LCB	S	C	BW	PGD	RM	CT	So	AS	LW	EC	MD
Properties of objects and materials		•	•	•	•	•	•	•	•	•	•	•
Light, heat, electricity, and magnetism						•	•				•	

**LIFE SCIENCE**

	Second Grade				Third Grade				Fourth Grade			
	LCB	S	C	BW	PGD	RM	CT	So	AS	LW	EC	MD
Characteristics of organisms	•				•				•			
Life cycles of organisms	•				•				•			
Organisms and environments	•	•			•				•	•		

**EARTH AND SPACE SCIENCE**

	Second Grade				Third Grade				Fourth Grade			
	LCB	S	C	BW	PGD	RM	CT	So	AS	LW	EC	MD
Properties of earth materials		•			•	•			•	•		
Objects in the sky												
Changes in earth and sky						•				•		

**SCIENCE AND TECHNOLOGY**

	Second Grade				Third Grade				Fourth Grade			
	LCB	S	C	BW	PGD	RM	CT	So	AS	LW	EC	MD
Abilities of technological design	•	•	•	•	•	•	•	•	•	•	•	•
Distinguish natural from human-made objects*	•	•	•	•	•	•	•	•	•	•	•	•

\*"Abilities to distinguish between natural objects and objects made by humans." Shortened to fit table.

	Second Grade				Third Grade				Fourth Grade			
	LCB	S	C	BW	PGD	RM	CT	So	AS	LW	EC	MD
Personal health												
Characteristics and changes in populations										•		
Types of resources	•	•			•	•	•		•	•		
Science and technology in local challenges				•			•	•		•	•	•

**HISTORY AND NATURE OF SCIENCE**

	Second Grade				Third Grade				Fourth Grade			
	LCB	S	C	BW	PGD	RM	CT	So	AS	LW	EC	MD
Science as a human endeavor	•	•	•	•	•	•	•	•	•	•	•	•

**FOURTH GRADE**

**UNIFYING CONCEPTS AND PROCESSES**

	Third Grade				Fourth Grade				Fifth Grade			
	PGD	RM	CT	So	AS	LW	EC	MD	Mw	E	FC	FS
Systems, order, and organization	•	•	•	•	•	•	•	•	•	•	•	•
Evidence, models, and explanation	•	•	•	•	•	•	•	•	•	•	•	•
Change, constancy, and measurement	•	•	•	•	•	•	•	•	•	•	•	•

**SCIENCE AS INQUIRY**

	Third Grade				Fourth Grade				Fifth Grade			
	PGD	RM	CT	So	AS	LW	EC	MD	Mw	E	FC	FS
Abilities necessary to do scientific inquiry	•	•	•	•	•	•	•	•	•	•	•	•
Understanding about scientific inquiry	•	•	•	•	•	•	•	•	•	•	•	•

**PHYSICAL SCIENCE**

	Third Grade				Fourth Grade				Fifth Grade			
	PGD	RM	CT	So	AS	LW	EC	MD	Mw	E	FC	FS
Properties of objects and materials			•			•		•			•	•
Position and motion of objects				•								
Light, heat, electricity, and magnetism							•					

**LIFE SCIENCE**

	Third Grade				Fourth Grade				Fifth Grade			
	PGD	RM	CT	So	AS	LW	EC	MD	Mw	E	FC	FS
Life cycles of organisms	•				•					•		
Organisms and environments					•	•				•		

**EARTH AND SPACE SCIENCE**

	Third Grade				Fourth Grade				Fifth Grade			
	PGD	RM	CT	So	AS	LW	EC	MD	Mw	E	FC	FS
Properties of earth materials		•				•						
Objects in the sky												
Changes in earth and sky												

**SCIENCE AND TECHNOLOGY**

	Third Grade				Fourth Grade				Fifth Grade			
	PGD	RM	CT	So	AS	LW	EC	MD	Mw	E	FC	FS
Understanding about science and technology	•	•	•	•	•	•	•	•	•	•	•	•

**SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES**

	Third Grade				Fourth Grade				Fifth Grade			
	PGD	RM	CT	So	AS	LW	EC	MD	Mw	E	FC	FS
Personal health										•	•	
Characteristics and changes in populations										•		
Types of resources		•			•	•				•		
Changes in environments					•	•				•		

Science and technology in local challenges		•				•	•	•		•	•	•
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**HISTORY AND NATURE OF SCIENCE**

	Third Grade				Fourth Grade				Fifth Grade			
	PGD	RM	CT	So	AS	LW	EC	MD	Mw	E	FC	FS
Science as a human endeavor	•	•			•			•	•			•

**FIFTH GRADE**

**UNIFYING CONCEPTS AND PROCESSES**

	Fourth Grade				Fifth Grade				Sixth Grade			
	AS	LW	EC	MD	Mw	E	FC	FS	EP	MT	MM	TP
Systems, order, and organization	•					•	•	•	•	•	•	•
Evidence, models, and explanation	•	•	•	•	•	•	•	•	•	•	•	•
Change, constancy, and measurement	•	•	•	•	•	•	•	•	•	•	•	•
Evolution and equilibrium		•		•	•	•		•		•	•	•

**SCIENCE AS INQUIRY**

	Fourth Grade				Fifth Grade				Sixth Grade			
	AS	LW	EC	MD	Mw	E	FC	FS	EP	MT	MM	TP
Abilities necessary to do scientific inquiry	•	•	•	•	•	•	•	•	•	•	•	•
Understanding about scientific inquiry	•	•	•	•	•	•	•	•	•	•	•	•

**PHYSICAL SCIENCE**

	Fourth Grade				Fifth Grade				Sixth Grade			
	AS	LW	EC	MD	Mw	E	FC	FS	EP	MT	MM	TP
Properties and changes in properties of matter							•	•				•
Motions and forces		•		•				•		•	•	
Transfer of energy		•	•	•						•	•	

**LIFE SCIENCE**

	Fourth Grade				Fifth Grade				Sixth Grade			
	AS	LW	EC	MD	Mw	E	FC	FS	EP	MT	MM	TP
Structure and function in living systems	•				•	•	•		•			
Reproduction and heredity	•				•	•			•			
Regulation and behavior	•				•	•			•			
Populations and ecosystems	•					•						

	Fourth Grade				Fifth Grade				Sixth Grade			
	AS	LW	EC	MD	Mw	E	FC	FS	EP	MT	MM	TP
Structure of the earth system		•										
Earth in the solar system										•		

**SCIENCE AND TECHNOLOGY**

	Fourth Grade				Fifth Grade				Sixth Grade			
	AS	LW	EC	MD	Mw	E	FC	FS	EP	MT	MM	TP
Abilities of technological design		•	•	•		•	•	•	•	•	•	•
Understanding about science and technology												

**SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES**

	Fourth Grade				Fifth Grade				Sixth Grade			
	AS	LW	EC	MD	Mw	E	FC	FS	EP	MT	MM	TP

Populations, resources, and environments						•						
Science and technology in society	•	•	•	•	•	•	•	•	•	•	•	•

**HISTORY AND NATURE OF SCIENCE**

	Fourth Grade				Fifth Grade				Sixth Grade			
	AS	LW	EC	MD	Mw	E	FC	FS	EP	MT	MM	TP
Science as a human endeavor	•	•	•	•	•	•	•	•	•	•	•	•
History of science	•				•		•	•		•	•	•

**SIXTH GRADE**

**UNIFYING CONCEPTS AND PROCESSES**

	Fifth Grade				Sixth Grade			
	Mw	E	FC	FS	EP	MT	MM	TP
Systems, order, and organization		•	•	•	•	•	•	•
Evidence, models, and explanation	•	•	•	•	•	•	•	•
Change, constancy, and measurement	•	•	•	•	•	•	•	•
Form and function	•					•	•	•

**SCIENCE AS INQUIRY**

	Fifth Grade				Sixth Grade			
	Mw	E	FC	FS	EP	MT	MM	TP
Abilities necessary to do scientific inquiry	•	•	•	•	•	•	•	•
Understanding about scientific inquiry	•	•	•	•	•	•	•	•

**PHYSICAL SCIENCE**

	Fifth Grade				Sixth Grade			
	Mw	E	FC	FS	EP	MT	MM	TP
Properties and changes of properties in matter			•	•				•
Motions and forces				•		•	•	
Transfer of energy						•		

**LIFE SCIENCE**

	Fifth Grade				Sixth Grade			
	Mw	E	FC	FS	EP	MT	MM	TP
Structure and function in living systems		•	•		•			
Reproduction and heredity		•			•			
Regulation and behavior		•			•			

**EARTH AND SPACE SCIENCE**

	Fifth Grade				Sixth Grade			
	Mw	E	FC	FS	EP	MT	MM	TP
Structure of the earth system								
Earth's history								
Earth in the solar system						•		

**SCIENCE AND TECHNOLOGY**

	Fifth Grade				Sixth Grade			
	Mw	E	FC	FS	EP	MT	MM	TP
Abilities of technological design	•	•	•	•	•	•	•	•

**SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES**

	Fifth Grade				Sixth Grade			
	Mw	E	FC	FS	EP	MT	MM	TP
Personal health								
Natural hazards								
Risks and benefits		•	•					•
Science and technology in society	•	•	•	•	•	•	•	•

**HISTORY AND NATURE OF SCIENCE**

	Fifth Grade				Sixth Grade			
	Mw	E	FC	FS	EP	MT	MM	TP
Science as a human endeavor	•	•	•	•	•	•	•	•
Nature of science	•	•	•	•	•	•	•	•