

# Language Arts Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
Language Arts	X	X	X						1
I. SPEAKING AND LISTENING SKILLS	X	X	X						2
I.A. Speaking Skills	X	X	X						3
I.A.1. Participates in group discussions	I	X	X	X	X				4
I.A.1.a. Understands ideas expressed by others	I	X	X	X	X				5
I.A.1.b. Expresses him/herself logically	I	X	X	X	X				6
I.A.2. Delivers well-organized oral reports			I	X	X	X	X	X	7
I.A.3. Recites short poems from memory		I	X	X	X	X	X	X	8
I.A.4. Tells stories in logical sequence			X	X					9
I.A.5. Participates with others in choric reading					I	X	X	X	10
I.A.6. Can present formal speeches to demonstrate, inform, or to entertain						I	X	X	11
I.A.7. Participates in informal debate							I	X	12
I.A.8. Can 'read' a dramatic part in a play					I	X	X	X	13
I.A.9. Can conduct a tape recorded interview						X	X	X	14
I.B. Listening Skills	X	X	X						15

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I.B1. Follows oral instructions	X	X	X						16
I.B.1.a. Simple: 1-2 step commands	I	X							17
I.B.1.b. Complex: 3-5 step commands		I	X	X					18
I.B.2. Listens purposefully and responds appropriately	I	X	X	X					19
I.B.3. Comprehension: Listens for details and answers questions about information presented orally or a story	X	X	X						20
I.B.3. a. Can name the characters in a story	I	X	X						21
I.B.3. b. Can identify a character's traits or behaviors			I	X	X				22
I.B.3. c. Can identify a character's feelings	I	X	X	X	X	X	X	X	23
I.B.3. d. Can summarize the plot of a story	I	X	X	X	X	X	X	X	24
I.B.3. e. Can indicate the chronological order of events	I	X	X	X					25
I.B.3. f. Can identify the cause of an event	I	X	X	X	X	X	X	X	26
I.B.3. g. Can explain the problem that a character faces and how he/she resolves it.	X	X	X	X	X	X	X		27
I.B.3. h. Can make reasonable predictions about what will happen next in a story	X	X	X	X	X				28
I.B.3. i. Can identify the speakers in a dialogue		X	X	X	X	X			29
I.B.3. j. Can identify to whom a pronoun is referring		X	X	X	X				30

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	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
II. HANDWRITING	X	X	X						31
II.A. Has developed fine motor control in preparation for handwriting	X	X	X						32
II.A.1. Metal insets	X	X	X						33
II.A.2. Tracing and design sheets	X	X	X						34
II.B. Has mastered the ability to write in D'Nealian manuscript	X	X	X						35
II.B.1. Lower case letters	I	X							36
II.B.2. Upper case letters		I	X						37
II.B.3. Has mastered the ability to space letters appropriately within a word when writing		I	X						38
II.B.4. Has mastered the ability to leave appropriate space between words when writing		I	X						39
II.C. Has mastered the ability to write in cursive form	X	X	X						40
II.C.1. Lower case letters			I	X					41
II.C.2. Upper case letters			I	X					42
II.C.3. Has mastered the ability to space letters appropriately within a word when writing					X				43
II.C.4. Has mastered the ability to leave appropriate space between words when writing					X				44
II.C.5. Writes cursive smoothly and easily						X			45

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Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
II.D. Calligraphy (An optional study for interested students)	X	X	X						46
II.D.1. Has begun to learn decorative handwriting						I	X	X	47
II.D.2. Has mastered one form of decorative letters						I	X	X	48
II.D.3. Writes a decorative hand easily in pencil						I	X	X	49
II.D.4. Writes a decorative hand easily in ink						I	X	X	50
II.D.5. Enjoys decorative writing						I	X	X	51
II.D.6. “Illuminates” decorative copywork						I	X	X	52
II.D.7. Masters a second decorative hand						I	X	X	53
III. WORD ATTACK SKILLS - Can read aloud with correct pronunciation:	X	X	X						54
III.A. Consonant sounds	X	X							55
III.B. Short vowel sounds	X	X							56
III.C. 3-letter phonetic words	I	X							57
III.D. 4-letter phonetic words (Blends)	I	X	X						58
III.E. Words ending with a silent ‘e’	I	X	X						59
III.F. Words containing phonograms - Orton-Gillingham sequence	I	X	X	X					60

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	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
III.G. Puzzle Words	I	X	X	X					61
IV. GRAMMAR AND SYNTAX	X	X	X						62
IV.A. Function of words - Can identify each part of speech in a sentence with the Montessori Grammar	X	X	X						63
IV.A.1. Noun		I	X	X		X			64
IV.A.2. Article		I	X	X		X			65
IV.A.3. Adjective		I	X	X		X			66
IV.A.4. Conjunction		I	X	X	X	X			67
IV.A.5. Preposition		I	X	X		X			68
IV.A.6. Verb		I	X	X		X			69
IV.A.7. Adverb		I	X	X	X	X			70
IV.A.8. Pronoun			I	X		X			71
IV.B. Grammar Boxes - Can use the Montessori Grammar Boxes to analyze the elements of a sentence	X	X	X						72
IV.B.1. Article				I	X	X			73
IV.B.2. Noun				I	X	X			74
IV.B.3. Adjective				I	X	X			75

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	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
IV.B.4. Verb				I	X	X			76
IV.B.5. Preposition					X	X	X		77
IV.B.6. Adverb					X	X	X		78
IV.B.7. Pronoun					X	X	X		79
IV.B.8. Conjunction					X	X	X		80
IV.B.9. Interjection					X	X	X		81
IV.C. Sentence Analysis - Can use the Montessori Sentence Analysis Charts to diagram sentences	X	X	X						82
IV.C.1. First Chart (Simple sentences)	X	X	X						83
IV.C.a. Diagraming (analysis)		I	X	X					84
IV.C.b. Sentence construction			X	X					85
IV.C.2. Second Chart (Complex sentences)	X	X	X						86
IV.C.a. Diagraming (analysis)				X	X	X			87
IV.C.b. Sentence construction				X	X	X			88
IV.D. Grammar Study	X	X	X						89
IV.D.1. Can identify the different types of nouns						X	X		90

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Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
IV.D.2. Can identify the different types of adjectives						X	X		91
IV.D.3. Can identify the different types of verbs						X	X		92
IV.D.4. Can identify the different types of pronouns						X	X		93
IV.D.5. Can identify the different types of adverbs							X	X	94
IV.D.6. Can conjugate common regular verbs							X	X	95
IV.D.7. Can conjugate common irregular verbs							X	X	96
IV.D.8. Can decline personal pronouns							X	X	97
IV.D.9. Can parse simple sentences						X	X		98
IV.D.10. Can parse compound sentences							X	X	99
IV.D.11. Can parse complex sentences							X	X	100
IV.D.12. Can identify the main clause and subordinate clauses in a sentence							I	X	101
IV.D.13. Can identify complements								X	102
V. READING	X	X	X						103
V.A. Can read simple sentences		X	X						104
V.B. Can read phonetic readers		X	X						105

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Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
V.C. Can read simple non-phonetic readers		I	X	X					106
V.D. Can read compound sentences with understanding				X	X				107
V.E. Can read complex sentences with understanding				X	X				108
V.F. Can read to others with style and assurance			I	X	X				109
V.G. Can read children’s magazines			I	X					110
V.H. Can read more complex children books				X	X				111
V.I. Can read with increasing comprehension	X	X	X						112
V.I.1. Can summarize the plot of a story		I	X	X	X				113
V.I.2. Can name the characters in a story		I	X	X	X				114
V.I.3. Can identify a character’s traits or behaviors		I	X	X	X				115
V.I.4. Can identify the cause of an event		I	X	X					116
V.I.5. Can follow written directions		I	X	X	X				117
V.I.6. Can identify a character’s feelings			I	X	X	X			118
V.I.7. Can indicate the chronological order of events			I	X	X	X			119
V.I.8. Can explain the problem that a character faces and how he/she resolves it.			I	X	X				120



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	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
V.I.9. Can make reasonable predictions about what will happen next in a story			I	X	X				121
V.I.10. Can identify to whom a pronoun used in a story is referring			I	X	X				122
V.I.11. Can identify the main idea in a short essay			I	X	X	X			123
V.I.12. Can identify the speakers in a dialogue				I	X	X			124
V.J. Reading for appreciation	X	X	X						125
V.J.1. Reads short stories with comprehension				X	X				126
V.J.2. Reads poetry with comprehension				X	X				127
V.J.3. Reads chaptered books that have few illustrations with comprehension					X	X	X	X	128
V.J.4. Reads folktales and mythologies with comprehension				X	X	X	X		129
V.J.5. Reads novels written for children						X	X	X	130
V.J.6. Reads biographies with comprehension						X	X	X	131
V.J.7. Reads plays with comprehension							X	X	132
V.J.8. Reads essays with comprehension							X	X	133
V.J.9. Reads reference books with comprehension				I	X	X	X	X	134
V.J.10. Reads adult magazines with comprehension							X	X	135

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	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
V.J.11. Reads the newspaper regularly						X	X	X	136
VI. WORD STUDY: Can identify and use the following word elements	X	X	X						137
VI.A. Compound words			X						138
VI.B. Contractions			I	X	X				139
VI.C. Prefixes			X	X					140
VI.D. Suffixes				X	X				141
VI.E. Word families						X			142
VI.F. Antonyms			I	X					143
VI.G. Synonyms				I	X				144
VI.H. Homophones					I	X			145
VI.I. Hyphenated words						I	X	X	146
VI.J. Can identify common acroynyms							X	X	147
VI.N. Has begun an introduction to the study of etymology							X	X	148
VI.O. Recognizes most 3 & 4 letter graphemes					X	X			149
VI.P. Can identify common contractions							X	X	150

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Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VI.Q. Can identify common abbreviations							X	X	151
VI.R. Can solve simple crossword puzzles							X	X	152
VII. SPELLING	X	X	X						153
VII.A. Can spell the words on the 1st grade spelling list			X						154
VII.B. Can spell the words on the 2nd grade spelling list				X	V				155
VII.C. Can spell the words on the 3rd grade spelling list					X				156
VII.D. Can spell the words on the 4th grade spelling list						X			157
VII.E. Can spell the words on the 5th grade spelling list							X	VII.	158
VII.E.1. Words		X							159
VII.E.2. Simple sentences			I	X	X				160
VII.E.3. Rhymes and poems					X	X	X	X	161
VII.E.4. Complex sentences					I	X	X	X	162
VII.F. Can use a dictionary with facility				I	X	X	X	X	163
VIII. PUNCTUATION AND THE MECHANICS OF WRITING	X	X	X						164
VIII.A. Follows correct rules of capitalization	X	X	X						165

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	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VIII.A.1. Initial words in sentences		I	X	X					166
VIII.A.2. Proper nouns / pronoun 'I'			I	X	X				167
VIII.B. Follows correct punctuation rules	X	X	X						168
VIII.B.1. Sentence endings		I	X	X					169
VIII.B.2. Use of the comma			I	X	X	X	X	X	170
VIII.B.3. Use of quotation marks				I	X	X	X	X	171
VIII.B.4. Abbreviations					X	X			172
VIII.B.5. Punctuating personal letters and envelopes				I	X	X			173
VIII.B.6. Use of the colon							I	X	174
VIII.B.7. Use of the semicolon							I	X	175
VIII.B.8. Punctuating "formal" letters and envelopes						X	X	X	176
VIII.B.9. Constructs paragraphs logically						X	X	X	177
IX. CREATIVE WRITING	X	X	X						178
IX.A. Writes logical noun phrases		X	X						179
IX.B. Writes logical simple sentences		X	X						180

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	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
IX.C. Writes captions for pictures		X	X						181
IX.D. Writes creative short stories				X	X	X			182
IX.E. Writes creative longer stories that follow an organized plot						X	X	X	183
IX.F. Writes logical compound sentences						X	X	X	184
IX.G. Writes logical complex sentences							X	X	185
IX.H. Uses a thesaurus to identify alternative words				I	X	X	X		186
IX.I. Writes ‘informal’ letters to friends and relatives				X	X				187
IX.J. Writes creative poems				X	X	X			188
IX.K. Writes ‘formal’ letters to industries, agencies, or government officials						I	X	X	189
IX.L. Writes creative simple plays							X	X	190
<b>X. RESEARCH SKILLS</b>	X	X	X						191
X.A. Can correctly apply rules of alphabetization	X	X	X						192
X.A.1. By first letter only		I	X	X					193
X.A.2. By first 2 letters		I	X	X	X				194
X.A.3. By entire word				X	X	X			195

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Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
X.B. Has developed basic dictionary skills	X	X	X						196
X.B.1. Locating words		I	X	X	X				197
X.B.2. Guide words			X	X	X				198
X.B.3. Simple definition				X	X				199
X.B.4. Multiple definitions					X	X	X	X	200
X.B.5. Entry/base word					I	X			201
X.B.6. Parts of speech						X	X		202
X.B.7. Syllabification				I	X	X			203
X.C. Reference skills and Report Writing	X	X	X						204
X.C.1. Uses the encyclopedia to locate information on a given topic:	X	X	X						205
X.C.1.a. Can locate an article under a given heading			I	X					206
X.C.1.b. Can find specific answers to given questions in encyclopedia article			X	X					207
X.C.1.c. Can identify the key information in an encyclopedia article				I	X	X	X		208
X.C.1.d. Can use cross-references to seek out additional information					I	X	X		209
X.C.2. Can use additional books as sources of information about a topic	X	X	X						210

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Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
X.C.2.a. Can locate books that offer additional information				I	X	X	X		211
X.C.2.b. Can identify the information on the title page					X	X			212
X.C.2.c. Can use the table of contents					X	X			213
X.C.2.d. Can use the index					X	X	X		214
X.C.3. Can copy information from a book			I	X	X				215
X.C.4. Can paraphrase information taken from a resource book into a simple written report					I	X	X		216
X.C.5. Can summarize information taken from a resource book into a written report					I	X	X		217
X.C.6. Can take subject notes from reference books, paraphrasing onto note cards						I	X	X	218
X.C.7. Can outline information						I	X	X	219
X.C.8. Can proofread material to identify spelling and grammatical errors				I	X	X	X	X	220
X.C.9. Knows how to cite references in a report						I	X	X	221
X.C.10. Knows how to use footnotes in a report								I	222
X.C.11. Can prepare a bibliography for a report						I	X	X	223
X.C.12. Can use the research and composition skills listed above to consider a given topic in a formal report,						I	X	X	224
XI. LITERATURE	X	X	X						225

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XI.A. Reads with comprehension and appreciation from the school's reading list for grade 1 and independently			X						226
XI.B. Reads with comprehension and appreciation from the school's reading list for grade 2 and independently				X					227
XI.C. Reads with comprehension and appreciation from the school's reading list for grade 3 and independently					X				228
XI.D. Reads with comprehension and appreciation from the school's reading list for grade 4 and independently						X			229
XI.E. Reads with comprehension and appreciation from the school's reading list for grade 5 and independently							X		230
XI.F. Reads with comprehension and appreciation from the school's reading list for grade 6 and independently								X	231
XI.G. Reading comprehension and analysis	X	X	X						232
XI.G.1. Can summarize the plot of a story			I	X	X	X	X	X	233
XI.G.2. Can indicate the chronological order of events in a story			I	X	X	X			234
XI.G.3. Can identify the cause of an event			I	X	X	X	X	X	235
XI.G.4. Can name the characters in a story			I	X	X	X			236
XI.G.5. Can identify a character's traits or behaviors			I	X	X	X	X	X	237
XI.G.6. Can identify what a character's speech or behavior reveals about him/her			I	X	X	X	X	X	238
XI.G.7. Can identify a speaker's attitude			I	X	X	X	X	X	239
XI.G.8. Explain the problem that a character faces and how he/she resolves it.			I	X	X	X	X	X	240



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XI.G.9. Can offer reasonable factors that motivate the actions of a character			I	X	X	X	X	X	241
XI.G.10. Can make reasonable predictions about what will happen next in a story			I	X	X	X	X	X	242
XI.G.11. Can identify the speakers in a dialogue			I	X	X	X	X	X	243
XI.G.12. Can identify to whom a pronoun used in a story is referring			I	X	X	X	X		244
XI.G.13. Can identify and describe the sections of a newspaper						I	X	X	245
XI.H. Biographies	X	X	X						246
XI.H.1. Can summarize the major events in the life of the subject of a biography						X	X		247
XI.H.2. Can describe how other characters influenced the subject of a biography						X	X		248
XI.H.3. Can describe how an outcome affected other events in the subject's life						X	X	X	249
XI.H.4. Can identify the biographer's attitude toward the subject of his/her work							X	X	250
XI.I. Famous Authors	X	X	X						251
XI.I.1. Can identify the authors of 10 familiar children's classics							X	X	252
XI.I.2. Can offer a brief biography of the authors of familiar children's classics							X	X	253
XII. PERSUASION IN PRINT	X	X	X						254
XII.A. Advertisements	X	X	X						255

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XII.A.1. Can identify the claims being made about a product in an ad						I	X	X	256
XII.A.2. Can identify the factual information that is offered to support these claims						I	X	X	257
XII.A.3. Can identify <sup>2</sup> the the comparative and superlative adjectives and adverbs used to describe the						I	X	X	258
XII.A.4. Can identify similies and metaphors used in the ad's persuasion						I	X	X	259
XII.A.5. Can identify the overt or implied message(s) used in the ad's attempt to persuade you to buy						I	X	X	260
XII.A.6. Can identify any illogical propositions that the ad is asking the reader to accept						X	X	X	261
XII.B. Argument and debate: Written or Oral	X	X	X						262
XII.B.1. Can summarize the main thrust of a writer or speaker's proposition						X	X	X	263
XII.B.2. Can identify the writer or speaker's apparent point of view						X	X	X	264
XII.B.3. Can identify the factual information that the writer or speaker offers to support his/her proposition						X	X	X	265
XII.B.4. Can identify any illogical arguments used by the writer or speaker to promote his/her proposition						X	X	X	266
VI.S. Can solve advanced elementary crossword puzzles							X	X	267

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MATHEMATICS	X	X	X	X	X	X	X	X	1
I. FUNDAMENTALS OF THE DECIMAL SYSTEM	X	X	X	X	X	X	X	X	2
I.A. Can count to 10 by units	X	X	X	X	X	X	X	X	3
I.A.1. Table top number rods	X								4
I.A.2. Sandpaper numerals	X								5
I.A.3. Association of number rods to numerals	X								6
I.A.4. Spindle boxes	X								7
I.A.5. Cards and counters	X								8
I.A.6. Short bead stair	X								9
I.B. Can count from 11 to 19 by units	X	X	X	X	X	X	X	X	10
I.B.1. Bead bars and cards	X	X							11
I.B.2. Teen board and beads	X	X							12
I.C. Can count from 1 to 100 by units	X	X	X	X	X	X	X	X	13
I.C.1. Ten boards and beads	X	X							14
I.C.2. 100 chain	X	X							15

# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
I.C.3. Hundred Board	I	X	X						16
I.D. Can count from 1 to 1,000:	X	X	X	X	X	X	X	X	17
I.C.1. Linear counting with bead chains	I	X	X						18
I.C.2. Linear counting with number rolls		I	X						19
I.C.3. Skip counting with bead chains and number rolls	X	X	X	X	X	X	X	X	20
I.C.3.a. 2's, 5's, and 10's		X	X						21
I.C.3.b. 3's, 4's, and 6's			X	X					22
I.C.3.c. 7's, 8's, and 9's			X	X					23
I.D. Numerical Place Value	X	X	X	X	X	X	X	X	24
I.D.1. Can recognize quantities up to 9,999	X	X	X	X	X	X	X	X	25
I.D.1.a. Golden Beads only	X	X	X						26
I.D.1.b. Number cards	X	X	X						27
I.D.1.c. Golden Beads and Number Cards	X	X	X						28
I.D.1.d. Exchanging Game	I	X	X						29
I.D.1.e. Stamp Game		X	X						30



# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
II.A.1.a. Golden Beads	X	X							46
II.A.1.b. Stamp Game			X						47
II.A.1.c. Dot Board			X						48
II.A.1.d. Golden Mat			X	X					49
II.A.1.e. Small Bead Frame		I	X	X					50
II.A.2. Addition of two 4 digit addends with exchanging	X	X	X	X	X	X	X	X	51
II.A.2.a. Golden Beads	I	X							52
II.A.2.b. Stamp Game	I	X	X						53
II.A.2.c. Dot Board		I	X						54
II.A.2.d. Golden Mat			X	X					55
II.A.2.e. Small Bead Frame			X	X					56
II.A.3. Addition of multiple addends	X	X	X	X	X	X	X	X	57
II.A.3.a. Golden Beads	X	X	X						58
II.A.3.b. Stamp Game		X	X	X					59
II.A.3.c. Dot Board			X	X					60

# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
II.A.3.d. Golden Mat			X	X					61
II.A.3.e. Small Bead Frame			X	X					62
II.A.4. Addition of two 7-digit addends without exchanging	X	X	X	X	X	X	X	X	63
II.A.4.a. Large Bead Frame			I	X					64
II.A.4.b. Long Division Racks and Tubes			I	X					65
II.A.4.c. Golden Mat			I	X					66
II.A.5. Addition of two 7-digit addends with exchanging	X	X	X	X	X	X	X	X	67
II.A.5.a. Large Bead Frame			I	X					68
II.A.5.b. Long Division Racks and Tubes			I	X					69
II.A.5.c. Golden Mat			I	X					70
II.A.6. Addition: Exercises leading to the memorization of addition facts	X	X	X	X	X	X	X	X	71
II.A.6.a. Basic addition facts: Two addends between 1-10	X	X	X	X	X	X	X	X	72
II.A.6.a1. Addition Snake Game	I	X	X						73
II.A.6.a2. Bead Bars	I	X	X						74
II.A.6.a3. Addition Strip Board	I	X	X						75

# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
II.A.6.a4. Addition Charts		X	X						76
II.A.6.b. Associative and Commutative Properties of Addition	X	X	X	X	X	X	X	X	77
II.A.6.b1. Bead Bars		I	X	X					78
II.A.6.b2. Flash Card Sets			X	X					79
II.A.6.c. Missing addends c1. Bead Bars			X	X					80
II.A.6.c2. Flash Card Sets			X	X					81
II.A.7. Addition: The Passage to Abstraction	X	X	X	X	X	X	X	X	82
II.A.7.a. Two Addends up to 9,999				X	X				83
II.A.7.b. Multiple addends up to 9,999,999				X	X				84
II.B. THE PROCESS OF SUBTRACTION	X	X	X	X	X	X	X	X	85
II.B.1. Subtraction of two 4 digit numbers without exchanging	X	X	X	X	X	X	X	X	86
II.B.1.a. Golden Beads	X	X							87
II.B.1.b. Stamp Game		X	X						88
II.B.1.c. Golden Mat			X						89
II.B.1.d. Small Bead Frame			X	X					90



# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
II.B.2. Subtraction of two 4 digit numbers with exchanging	X	X	X	X	X	X	X	X	91
II.B.2.a. Golden Beads	I	X							92
II.B.2.b. Stamp Game		I	X						93
II.B.2.c. Golden Mat			X	X					94
II.B.2.d. Small Bead Frame			X	X					95
II.B.3. Subtraction of two 7-digit numbers without exchanging	X	X	X	X	X	X	X	X	96
II.B.3.a. Large Bead Frames			X	X					97
II.B.4. Subtraction of two 7-digit numbers with exchanging	X	X	X	X	X	X	X	X	98
II.B.4.a. Large Bead Frames			X	X					99
II.B.5. Subtraction: Activities Leading To The Memorization of Subtraction Facts	X	X	X	X	X	X	X	X	100
II.B.5.a. Basic subtraction facts: Relationships between the numbers 1-18	X	X	X	X	X	X	X	X	101
II.B.5.a1. Subtraction Strip Board		I	X						102
II.B.5.a2. Subtraction Charts		I	X						103
II.B.5.a3. Flash Cards		I	X						104
II.B.5.a4. Negative Snake Game			I	X					105

# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
II.B.5.b. Missing Factors	X	X	X	X	X	X	X	X	106
II.B.5.b1. Bead Bars			X	X					107
II.B.5.b2. Flash Cards			X	X					108
II.B.6. Subtraction: The Passage To Abstraction	X	X	X	X	X	X	X	X	109
II.B.6.a. Numbers up to 4 digits				X	X				110
II.B.6.b. Numbers up to 7 digits				X	X				111
II.C. MULTIPLICATION	X	X	X	X	X	X	X	X	112
II.C.1. The Process of Multiplication	X	X	X	X	X	X	X	X	113
II.C.1.a. Multiplication of a 4 digit number by a 1 digit multiplier	X	X	X	X	X	X	X	X	114
II.C.1.a1. Golden Beads	X	X							115
II.C.1.a2. Stamp Game		X	X	X					116
II.C.1.a3. Golden Mat				X					117
II.C.1.a4. Small Bead Frame				X					118
II.C.1.b. Multiplication of a 7 digit number by a 1 digit multiplier	X	X	X	X	X	X	X	X	119
II.C.1.b1. Golden Mat				X	X				120

# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
II.C.1.b2. Large Bead Frame				X	X				121
II.C.1.b3. Multiplication Checkerboard				I	X				122
II.C.1.b4. Flat Bead Frame				I	X				123
II.C.1.c. Multiplication of a 7 digit number by a 2 digit multiplier	X	X	X	X	X	X	X	X	124
II.C.1.c1. Golden Mat					X				125
II.C.1.c2. Large Bead Frame					X				126
II.C.1.c3. Multiplication Checkerboard					X	X			127
II.C.1.c4. Flat Bead Frame					X	X			128
II.C.1.c5. Junior Bank Game					X	X			129
II.C.2. Multiplication: Activities Leading To The Memorization of Multiplication Facts	X	X	X	X	X	X	X	X	130
II.C.2.a. Basic multiplication facts: Tables 1-10	X	X	X	X	X	X	X	X	131
II.C.2.a1. Bead Chains		I	X	X	X				132
II.C.2.a2. Bead Bars		I	X	X	X				133
II.C.2.a3. Multiplication Charts			I	X	X				134
II.C.2.a4. Flash Cards			I	X	X				135



# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
II.D.1.b1. Golden Beads		I							151
II.D.1.b2. Stamp Game		I	X	X					152
II.D.1.b3. Golden Mat				X	X				153
II.D.1.b4. Long Division Racks And Tubes				X	X				154
II.D.1.c. Division of a 7 digit number by 1 digit divisor with or without a remainder	X	X	X	X	X	X	X	X	155
II.D.1.c1. Golden Mat				X	X				156
II.D.1.c2. Long Division Racks And Tubes				X	X				157
II.D.1.d. Division of a 7 digit number by a 2-digit divisor with or without a remainder d1. Long Division				I	X	X			158
II.D.1.e. Division of a 7 digit number by a 3 or 4-digit divisor with or without a remainder	X	X	X	X	X	X	X	X	159
II.D.1.e1. Long Division Racks And Tubes					X	X	X		160
II.D.2. Division: Exercises Leading To The Memorization of Division Facts	X	X	X	X	X	X	X	X	161
II.D.2.a. Basic division facts: Divisors 1-9	X	X	X	X	X	X	X	X	162
II.D.2.a1. Units Division Board				X	X				163
II.D.2.b. Basic division facts for divisor of 10					X	X	X		164
II.D.2.c. Missing Factors						X	X		165



# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
IV.A. Introduction To Fractions	X	X	X	X	X	X	X	X	181
IV.A.1. Recognition of fractions: concrete material & symbol	X	X	X	X	X	X	X	X	182
IV.A.1.a. Fraction Skittles		I	X	X					183
IV.A.1.b. Fraction Circles		I	X	X	X				184
IV.A.2. Equivalences	X	X	X	X	X	X	X	X	185
IV.A.2.a. Fraction Circles			X	X	X				186
IV.A.2.b. Fraction Circle Box				X	X				187
IV.A.2.c. Fraction Charts				X	X				188
IV.B. Operations With Fractions	X	X	X	X	X	X	X	X	189
IV.B.1. Addition of fractions that share a common denominator	X	X	X	X	X	X	X	X	190
IV.B.1.a. Fraction Circles			X	X					191
IV.B.1.b. Fraction Circle Box				X	X	X			192
IV.B.1.c. Fraction Charts				X	X	X			193
IV.B.2. Subtraction of fractions that share a common denominator	X	X	X	X	X	X	X	X	194
IV.B.2.a. Fraction Circles				X	X	X			195









# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
V.A.1.a. Decimal Fraction Board						I	X	X	241
V.A.2. Equivalences to regular fractions: 1/2 to 1/10	X	X	X	X	X	X	X	X	242
V.A.2.a. Fraction Circles						I	X	X	243
V.A.2.b. Decimal Fraction Board						I	X	X	244
V.A.2.3. Equivalences to any other regular fractions						I	X	X	245
V.B. Operations With Decimal Fractions	X	X	X	X	X	X	X	X	246
V.B.1. Addition of Decimal Fractions	X	X	X	X	X	X	X	X	247
V.B.1.a. Decimal Fraction Board						I	X	X	248
V.B.2. Subtraction of Decimal Fractions	X	X	X	X	X	X	X	X	249
V.B.2.a. Decimal Fraction Board						I	X	X	250
V.B.3. Multiplication of Decimal Fractions	X	X	X	X	X	X	X	X	251
V.B.3.a. Decimal Fraction Board							X	X	252
V.B.4. Division of Decimal Fractions	X	X	X	X	X	X	X	X	253
V.B.4.a. Decimal Fraction Board							X	X	254
V.B.5. Nomenclature and Recognition of Decimal Fractions to .999999						I	X	X	255

# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
V.C. Conversion of fractions (less than 1) to percent equivalents							X	X	256
V.D. Conversion of percents (less than 1) to fraction equivalents							X	X	257
	X	X	X	X	X	X	X	X	258
VI. ROUNDING OFF NUMBERS	X	X	X	X	X	X	X	X	259
VI.A. Can round whole numbers off to the nearest unit of tens, hundreds, or thousands				I	X	X			260
VI.B. Can round mixed numbers off to the nearest whole number					I	X			261
VI.C. Can round mixed numbers off to the nearest unit of tenths, hundredths, or thousandths						X			262
VI.D. Can accurately estimate sums or differences, using sums up to 3 digits						X	X	X	263
VI.E. Can estimate sums, differences, products, or quotients, using very large sums or very small								X	264
VII. PRACTICAL APPLICATIONS OF MATHEMATICS	X	X	X	X	X	X	X	X	265
VII.A. Solving Word Problems	X	X	X	X	X	X	X	X	266
VII.A.1. Addition			X	X	X	X			267
VII.A.2. Subtraction			X	X	X	X			268
VII.A.3. Multiplication				X	X	X	X		269
VII.A.4. Division				X	X	X	X		270







# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VII.C.4.e. Practical Applications:				I	X	X	X	X	316
VII.D. Graphs	X	X	X	X	X	X	X	X	317
VII.E.1. Can read graphs and make inferences from the information graphically displayed	X	X	X	X	X	X	X	X	318
VII.E.1.a. Picture graphs		I	X	X	X				319
VII.E.1.b. Circle graphs			I	X	X	X	X	X	320
VII.E.1.c. Bar graphs		I	X	X	X	X	X	X	321
VII.E.1.d. Line graphs				I	X	X	X	X	322
VII.E.1.e. Scatter distributions						I	X	X	323
VII.E.2. Can prepare graphs from gathered data:	X	X	X	X	X	X	X	X	324
VII.E.2.a. Picture graphs			I	X	X				325
VII.E.2.b. Circle graphs using fractions				I	X	X	X	X	326
VII.E.2.c. Bar graphs			I	X	X	X	X	X	327
VII.E.2.d. Line graphs				I	X	X	X	X	328
VII.E.2.e. Scatter distributions						I	X	X	329
VII.E.2.f. Graphs for two variables						I	X	X	330





# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VIII.A. Is familiar with the relationships between simple quantities and sets and their symbols	X	X	X	X	X	X	X	X	346
VIII.A.1. “Greater Than ...” ( $>$ )			I	X		X			347
VIII.A.2. “Less Than ...”			I	X		X			348
VIII.A.3. “Equal To..”		I	X	X		X			349
VIII.B. Is familiar with the relationships between quantities involving multiple operations ( $3 \times 4 > 2 + 3$ )	X	X	X	X	X	X	X	X	350
VIII.B.1. “Greater Than ...” ( $>$ )			I	X		X			351
VIII.B.2. “Less Than ...”			I	X		X			352
VIII.B.3. “Equal To..”			I	X		X			353
IX. Ratios and percents	X	X	X	X	X	X	X	X	354
IX.A. Can write the ratio of two quantities as a fraction						I	X	X	355
IX.B. Can solve for a missing term in a proportion						I	X	X	356
IX.C. Can write a ratio with a denominator of 100 as a percent (%) and a percent as a ratio with a denominator						I	X	X	357
IX.D. Can write a decimal (less than 1) as a percent and a percent (less than 100%) as a decimal						I	X	X	358
IX.E. Can write a percent as a fraction in simplest form and a common fraction as a percent						I	X	X	359
IX.F. Can find a percent (greater than 1% but less than 100%) of a given number						I	X	X	360





# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
XII.B.2.a. Bead Bars			I	X	X	X	X		391
XII.B.2.b. Bead Cabinet			I	X	X	X	X		392
XII.B.3. Can calculate the square of a binomial					I	X	X	X	393
XII.B.4. Can calculate the square of a trinomial					I	X	X	X	394
XII.B.5. Can calculate the cube of a binomial						I	X	X	395
XII.B.6. Can calculate the cube of a trinomial						I	X	X	396
XII.B.7. Can calculate square roots					I	X	X	X	397
XII.B.8. Can calculate the square roots of binomials					I	X	X	X	398
XII.B.9. Can calculate the square roots of trinomials						I	X	X	399
XII.B.10. Can calculate cube roots							I	X	400
XII.B.11. Can calculate the cube roots of binomials							I	X	401
XII.B.12. Can calculate the cube roots of trinomials							I	X	402
XII.B.13. Understands and can calculate exponents	X	X	X	X	X	X	X	X	403
XII.B.13.a. Exponential notation 10 <sup>1</sup> through 10 <sup>6</sup>						I	X	X	404
XII.B.13.b. Exponential notation 10 <sup>-1</sup> through 10 <sup>-6</sup>						I	X	X	405

# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
XII.B.13.c. Exponential notation 100 through 106						I	X	X	406
XII.B.13.d. Exponential notation 107 through 1012						I	X	X	407
XII.B.13.e. Exponential notation 10-1 through 10-6						I	X	X	408
XII.C. Scientific notation	X	X	X	X	X	X	X	X	409
XII.C.1. Can convert large whole numbers to scientific notation						I	X	X	410
XII.C.2. Can convert very small decimal fractions to scientific notation						I	X	X	411
XIII.Geometry	X	X	X	X	X	X	X	X	412
XIII.A. Recognition and nomenclature of geometric figures	X	X	X	X	X	X	X	X	413
XIII.1. Can identify basic geometric shapes	I	X							414
XIII.A.2. Can identify types of triangle by their sides		I	X	X					415
XIII.A.3. Can identify types of triangle by their angles: right, scalene, obtuse, equilateral		I	X	X	X	X			416
XIII.A.4. Can identify regular polygons through the decagon	I	X	X	X	X	X			417
XIII.A.5. Can identify irregular polygons through the decagon		I	X	X	X	X			418
XIII.A.6. Can identify all of the quadrilaterals	I	X	X	X	X	X			419
XIII.A.7. Can differentiate between a circle, ellipse, and oval	I	X	X						420

# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
XIII.A.8. Can identify a cube, sphere, cylinder, pyramid, and cone	I	X	X						421
XIII.A.9. Can identify a rectangular prism, triangular prism, ovoid, and ellipsoid	I	X	X						422
XIII.A.10. Can identify the faces, edges, and surfaces of solid geometric objects		I	X	X	X	X			423
XIII.A.11. Can identify congruent shapes by matching	I	X	X	X	X	X			424
XIII.A.12. Can identify the parts of a circle: radius, diameter, circumference				I	X	X	X		425
XIII.A.13. Can identify the parts of a triangle				I	X	X	X		426
XIII.A.14. Can identify the parts of a square				I	X	X	X		427
XIII.B. Angles, similarities and congruence	X	X	X	X	X	X	X	X	428
XIII.B.1. Can measure angles with a protractor				I	X	X			429
XIII.B.2. Can add angles and compute arcs				I	X	X			430
XIII.B.3. Can recognize congruent figures			I	X	X	X			431
XIII.B.4. Can recognize similar figures			I	X	X	X			432
XIII.B.5. Can recognize equivalent figures			I	X	X	X			433
XIII.B.6. Can identify angles as being acute, right, obtuse, and straight			I	X	X	X			434
XIII.B.7. Can identify the relations between two straight lines: parallel & perpendicular			I	X	X	X			435

# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
XIII.B.8. Can name angles formed by two straight lines cut by a transversal				X	X	X			436
XIII.B.9. Can name the relationships between two angles				X	X	X			437
XIII.B.10. The Pythagorean Theorem	X	X	X	X	X	X	X	X	438
XIII.B.10.a. Recognizes the 3-4-5 case of the Pythagorean Theorem								I	439
XIII.B.10.b.. Recognizes the isosceles right triangle case of the Pythagorean Theorem								I	440
XIII.B.10.c.. Understands the generalized proof of the Pythagorean Theorem								I	441
XIII.B.11. Can identify the sum of the interior angles of a triangle or regular polygon						I	X	X	442
	X	X	X	X	X	X	X	X	443
XIII.C.. Construction of geometric figures	X	X	X	X	X	X	X	X	444
XIII.C.1. Can demonstrate line symmetry in a given shape by folding along its center line	I	X	X	X	X	X	X	X	445
XIII.C.2. Can construct an angle of a given measure with a protractor and straightedge				I	X				446
XIII.C.3. Can bisect an angle with a compass and straightedge				I	X	X	X	X	447
XIII.C.4. Can bisect a line segment with a compass and straightedge				I	X	X	X	X	448
XIII.C.5. Can draw a line perpendicular to another line with a straightedge, compass, and protractor				I	X	X	X	X	449
XIII.C.6. Can draw a line parallel to another line with a straightedge, compass, and protractor				I	X	X	X	X	450



# Mathematics Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
XIII.C.7. Can construct a square with a protractor and straightedge				I	X	X	X	X	451
XIII.C.8. Can construct a circle with a compass					I	X	X	X	452
XIII.C.9. Can construct an ellipse					I	X	X	X	453
XIII.C.10. Can measure the radius and diameter of a circle					I	X			454
XIII.C.11. Can measure the circumference of a circle				I	X	X	X		455
XIII.C.12. Can construct a scale model or drawing of an object given a scale to follow						I	X		456
XIII.C.13. Can construct a tetrahedron						I	X	X	457
XIII.C.14. Can construct a cube						I	X	X	458
XIII.C.15. Construct an octagon, dodecahedra, icosahedra						I	X	X	459
XIII.D. CALCULATION OF AREA	X	X	X	X	X	X	X	X	460
XIII.D.1. Can calculate the area of a square					I	X	X		461
XIII.D.2. Can calculate the area of a rectangle					I	X	X		462
XIII.D.3. Can calculate the area of a triangle						I	X	X	463
XIII.D.4. Can calculate the area of a parallelogram						I	X	X	464
XIII.D.5. Can calculate the area of a trapezoid						I	X	X	465



# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
I. Mapping skills	X	X	X	X	X	X	X	X	1
I.A. Introductory Concepts	X	X	X	X	X	X	X	X	2
I.A.1. recognize that the Earth is divided in the realms of land, air, and water	X								3
I.A.2. recognize that the Earth is shaped like a sphere, and is in turn represented in a miniature scale by a globe	X	X	X	X	X	X	X	X	4
I.A.2. a. The Land and Water globe	I	X							5
I.A.2. b. The Continents Globe	I	X							6
I.A.2. c. School globes		I	X						6.1
I.A.3. distinguish between the representations of land masses and the oceans on the Land and water globe	I	X							7
I.A.4. verbally identify the names of the continents	X	X	X	X	X	X	X	X	8
I.A.4.a. The Continent Globe	I	X							9
I.A.4.b. The World Puzzle Map	I	X							10

# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
I.A.5. explain that flat maps represent the same land and land features as a globe, but are easier to use: Globe - flattened rubber ball - World Puzzle Map	I	X							11
I.A.6. differentiate between land and water on a map	I	X							12
I.A.7. identify the world's seven major oceans on a World Puzzle Map	I	X	X						13
I.A.8. verbally identify the names of the countries of North America, South America, Europe, and the states of the United States:	X	X	X	X	X	X	X	X	13.1
I.A.8.a. The Puzzle Maps	I	X	X	X	X	X			13.3
I.A.8.b. Outline Maps		I	X	X	X	X			13.4
I.A.8.c. The Pin Maps			I	X	X	X			13.5
I.A.9. match the pieces of the Puzzle Maps of North America, South America, the US, Europe, Africa, Asia, and Oceania w/ its corresponding Control Map.	I	X	X						14
I.A.10. read the written names of the countries of North America, South America, Europe, and the states of the United States, and match the name tags with the country or state of a map:	X	X	X	X	X	X	X	X	15
I.A.10.a. The Puzzle Maps		I	X	X	X	X			16
I.A.10.b. Outline Maps			I	X	X	X			16.1

# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
I.A.10.c. The Pin Maps				I	X	X			16.15
I.A.11. prepare written name tags to label the countries of North America, South America, Europe, and the states of the United States when show a given country or state on a map	X	X	X	X	X	X	X	X	16.2
I.A.11.a. The Puzzle Maps		I	X	X	X	X	X		16.3
I.A.11.b. Outline maps			I	X	X	X	X		16.4
I.A.12. independently prepare one's own maps	X	X	X	X	X	X	X	X	16.5
I.A.12.a. trace a single country or state from a Puzzle Map	I	X							16.6
I.A.12.b. trace an entire continent onto a sheet of paper to make a map	I	X	X						16.7
I.A.13. match the countries of North America, South America, and Europe from the Puzzle Maps with their flags	I	X	X	X	X	X	X		17
I.B. development of spatial concepts	X	X	X	X	X	X	X	X	18
I.B. 1. make a first crude map with paper, marker, and plasticine clay	I	X							18.1
I.B.2. The Model Town or Farm: duplicate a layout from one board to another with both boards side-by-side and oriented in the same direction	I	X	X						18.2

# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
I.B.3. Classroom model: duplicate the layout of the furniture in the classroom on a simple scale model		I	X	X					18.3
I.B.4. The Model Town or Farm: duplicate a layout from one board to another with the two boards separated and oriented in the opposite directions		I	X	X					18.4
I.B.5. The Model Town or Farm: duplicate a layout on one board given a photograph of a layout set up on a duplicate board		I	X	X					18.5
I.B.6. The Model Town or Farm: duplicate a layout from one board to another, using map symbols to represent the buildings found on the other.		I	X	X					18.6
I.B.7. Introduction to compass directions	X	X	X	X	X	X	X	X	18.65
I.B.7.a. identify the north and south poles on the Continent Globe and distinguish between 'movement' on the globe in a northerly or southerly direction	I	X	X						18.7
I.B.7.b. identify the north, south, east, and west walls of the classroom	I	X	X						18.8
I.B.7.c. on command, can 'move' X-'steps' north, east, south, or west in the classroom	I	X							18.9
I.B.7.d. identify the directions north, east, south, and west outside on the playground	I	X	X						18.91
I.B.7.e. distinguish between northerly, southerly, easterly, and westerly 'movement' on a flat Puzzle Map	I	X	X						18.92
I.B.7.f. use a simple compass to identify the directions north, east, south, and west	I	X	X						18.93

# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
I.B.7.g. using a simple compass, on command, can move X-steps north, east, south, or west outside	I	X	X						18.94
I.B.7.h. using a simple compass, can identify the directions northeast, northwest, southeast, and southwest outside		I	X	X					18.95
I.B.7.i. identify the relative position of any point on a map as being north, northeast, east, southeast, south, southwest, west, or northwest of any other given point			I	X	X				18.96
I.B.8. The Town Game	X	X	X	X	X	X	X	X	20
I.B.8.a. can place specific model buildings on a model layout of a small village in which all streets have been named, using commands that refer only to their placement on a given street: “Place the church on Elm Street”		I	X						20.1
I.B.8.b. can place specific model buildings on the model town, using commands that refer only to their placement at the intersection of two streets			I	X					20.2
I.B.8.c. can place specific model buildings on a model town, using commands that specify which corner (NE, NW, SE, SW) of a given intersection they should be placed on			I	X	X				20.3
I.C. Reading detailed wall or atlas maps	X	X	X	X	X	X	X	X	21
I.C.1. Can locate a given country on a detailed map				I	X	X	X		22
I.C.3. Can locate given lakes, rivers, river deltas, capes, bays, and other land-water features on a detailed map				I	X	X	X		23
I.C.4. Can locate mountain ranges, major river valleys, and plateaus on a detailed map that shows geographical features					I	X	X		24





# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
I.E.1. Can locate the Equator and Prime Meridian on a globe or map					I	X	X		36
I.E.2. Can identify the northern and southern hemispheres					I	X	X		37
I.E.3. Can locate on a globe or map the Tropic of Cancer, Tropic of Capricorn, Arctic Circle, and Antarctic Circle					I	X	X		38
I.E.4. Can demonstrate that parallels of latitude indicate direction north and south of the Equator					I	X	X		39
I.E.5. Can demonstrate that meridians of longitude represent direction east and west of the Prime Meridian					I	X	X		40
I.E.6. Can locate a point on a map or globe given its longitude and latitude in degrees					I	X	X		41
I.E.7. Can locate a point on a detailed chart given its longitude and latitude in degrees, minutes, and seconds							I	X	42
I.E.8. Can measure distance between two points on a globe using a Great Circle route							I	X	43
I.E.9. Can identify time zone differences on a globe using longitude							I	X	44
I.F. Using an atlas	X	X	X	X	X	X	X	X	45
I.F.1. Can identify the symbols used to represent national boundaries on a political map			I	X	X				45.1

# Geography Scope and Sequence

**Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:**

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
I.F.2. Can distinguish among the different levels of political subdivisions shown on a map: nations, states or provinces, counties, and cities					I	X	X		46
I.F.3. Can use a pictographic map from an atlas to determine a country's major natural resources, agricultural products, and industries by region					I	X	X		47
I.F.4. Can use a pictographic map from an atlas to determine a country's annual rainfall by region					I	X	X		48
I.F.5. Can use a pictographic map from an atlas to determine what type of climate(s) exist within a given country					I	X	X		49
I.F.6. Can use a pictographic map from an atlas to determine the size of a given country's cities and the pattern of how its population is distributed					I	X	X		50
I.F.7. Can use a pictographic map from an atlas to determine the major features of a given country's terrain: elevation above sea level, mountain ranges, natural barriers to travel, logical land and water transportation routes					I	X	X		51
I.F.8. Can analyze the information given in all of these maps to suggest why the major population centers of a given country were located where they are now.						I	X	X	52
I.F.9. Can use the atlas' index or table of contents to determine which map would be appropriate for a given task							I	X	53
I.G. Map making	X	X	X	X	X	X	X	X	54
I.G. 1. Can briefly describe the history of map making: The importance of maps in trade, exploration, and warfare before 1900, and how early maps were developed						I	X	X	55
I.G. 2. Can make an accurate map of the CMS campus						I	X	X	56

# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
I.G. 3. Can describe how modern cartographers prepare maps from the air and from space						I	X		57
I.G. 4. Can locate familiar points on the CMS campus from an aerial photograph						I	X		58
I.G. 5. Using a contour map	X	X	X	X	X	X	X	X	59
I.G. 5.a. Can explain the importance and everyday use of contour maps in hiking, construction, and aircraft navigation						I	X		60
I.G. 5.b. Can explain how contour maps are prepared by land surveying methods						I	X		61
I.G. 5.c. Can read a contour map to determine the elevation of any given point						I	X		62
I.G. 5.d. Can construct a three dimensional map model of a contour map out of overlapping cardboard						I	X		63
I.G. 5.e. Can use a contour map (with a compass) on a hike during a camping trip to determine his/her position and find the best route						I	X		64
II. The geographical features of the world	X	X	X	X	X	X	X	X	65
II.A. Land and Water Forms	X	X	X	X	X	X	X	X	66
II.A.1. identify the following land/water forms from a 3-dimensional model: cape, bay, island, lake, isthmus, strait, gulf, and peninsula	I	X	X						66.1

# Geography Scope and Sequence

**Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:**

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.A.2. identify the following land/water forms on a map or globe: cape, bay, island, lake, isthmus, strait, gulf, and peninsula	I	X	X	X					66.2
II.B. identify the major islands of the world on a map				I	X	X	X	X	67
II.C. identify the major lakes of the world on a map				I	X	X	X	X	68
II.D. identify the major deserts of the world on a map				I	X	X	X	X	69
II.E. identify the major rivers of the world on a map				I	X	X	X	X	70
II.F. identify the major mountain ranges of the world on a map				I	X	X	X	X	71
II.G. Geological land formations	X	X	X	X	X	X	X	X	72
II.G.1. identify the following geological land formations on a 3-dimensional model: mountains, foothills, valley, plateau, canyon, mesa, river palisades, volcano, and crater lake			I	X	X	X	X	X	73
II.G.2. identify the following geological land formations on a map or globe: mountains, foothills, valley, plateau, canyon, mesa, river palisades, volcano, and crater lake			I	X	X	X	X	X	74
II.H. The Interior of the Earth	X	X	X	X	X	X	X	X	75
II.H.1. identify on a chart the interior regions of the Earth			I	X	X				75.1

# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.H.2. describe in simple terms what scientists know or believe to be true about the interior regions of the Earth			I	X	X				75.2
II.H.3. briefly describe continental shelves					I	X			76
II.H. 4. briefly explain the concept of tectonic plates and continental drift (See also prehistory)					I	X			77
II.H.5. describe an earthquake and the damage that they can lead to.			I	X	X	X			78
II.H.6. explain in simple terms that earthquakes are the result of opposing pressure and slippage between two tectonic plates					I	X			79
II.I. Volcanoes	X	X	X	X	X	X	X	X	80
II.I.1. describe in simple terms what scientists know or believe to be true about volcanoes		I	X	X	X	X			81
II.I.2. retell in simple terms the story of the destruction of Pompei					I	X			82
II.I.3. identify the major regions of volcanic activity in the world today					I	X			83
III. Climates and Environments	X	X	X	X	X	X	X	X	84
III.A. recognize that the climate and environment that people live in strongly affects their lives		I	X	X	X	X			85

# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.B. describe the following environmental characteristics of desert regions around the world:	X	X	X	X	X	X	X	X	86
III.B.1. climate and environment		I	X	X	X	X			87
III.B. 2. plants that are typically found in the desert		I	X	X	X	X			88
III.B.3. animals that are typically found in the desert		I	X	X	X	X			89
III.B.4. how people dress in the desert		I	X	X	X	X			90
III.B.5. shelter and housing typically found in desert regions		I	X	X	X	X			91
III.B.6. traditional modes of transportation in the desert		I	X	X	X	X			92
III.B.7. the lives of children who live in desert regions		I	X	X	X	X			93
III.C. describe the following environmental characteristics of rain forest regions around the world:	X	X	X	X	X	X	X	X	94
III.C.1. climate and environment		I	X	X	X	X			95
III.C.2. plants that are typically found in the rain forest		I	X	X	X	X			96

# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.C.3. animals that are typically found in the rain forest		I	X	X	X	X			97
III.C.4. how people dress in the rain forest		I	X	X	X	X			98
III.C.5. shelter and housing typically found in rain forests		I	X	X	X	X			99
III.C.6. traditional modes of transportation in the rain forest		I	X	X	X	X			99.1
III.C.7. the lives of children who live in rain forest regions		I	X	X	X	X			99.2
III.D. describe the following environmental characteristics of temperate regions around the world:	X	X	X	X	X	X	X	X	102
III.D.1. climate and environment		I	X	X	X	X			103
III.D.2. plants that are typically found in temperate regions		I	X	X	X	X			104
III.D.3. animals that are typically found in temperate regions		I	X	X	X	X			105
III.D.4. how people dress in the temperate regions		I	X	X	X	X			106
III.D.5. typical shelter and housing in temperate regions		I	X	X	X	X			107





# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
IV.A. identify the capital cities of the nations of North America on a map		I	X	X	X	X			119
IV.B. identify the capital cities of the nations of South America on a map		I	X	X	X	X			120
IV.C. identify the capital cities of the nations of Europe on a map		I	X	X	X	X			121
IV.E. identify the nations of Asia and their capital cities on a map		I	X	X	X	X			122
V. First Impressions of the Solar System	X	X	X	X	X	X	X	X	123
V.A. explain that the Earth revolves around the sun, a concept initially developed from the CMS Birthday Ceremony	I	X	X						123.1
V.B. explain that the nine planets revolve around the sun, a concept initially developed through the ‘Dance of the Cosmos’	I	X	X						123.2
V.C. explain that many of the planets have moons, which orbit their home planet while the planet itself revolves around the sun, a concept initially developed through the ‘Dance of the Cosmos’	I	X	X						123.3
VI. Flags NOTE: The school focuses on the geography and culture of the world in a three year cycle: Years A, B & C. In year A, we study North and South America at all grade levels. During Year B, we focus on Europe, Australia, and the islands of the South Pacific. Finally in	X	X	X	X	X	X	X	X	124
VI.A. find matching pictures of the flags of different countries	I	X	X	X					124.1
VI.B. identify a flag as a symbol of a state or country	I	X	X						124.2

# Geography Scope and Sequence

**Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:**

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
VI.C. match the flags of Europe, North America, and South America with the corresponding country on the Puzzle Maps		I	X						124.3
VI.D. identify the flags of the nations of North America	I	X	X	X	X				124.4
VI.E. identify the flags of the nations of South America	I	X	X	X	X				124.5
VI.F. identify the flags of the nations of Europe	I	X	X	X	X				124.6
VII. Communities and Regions of the United States	X	X	X	X	X	X	X	X	125
VII.A. Washington, D.C.: Investigates and gathers information about Washington, D.C. from many resources, including the encyclopedia, classroom resource books, artifacts, audiovisual materials, and field trips		I	X		X	X		X	126
VII.B. Florida: Investigates and gathers information about the state we live in from many resources, including the encyclopedia, classroom resource books, artifacts, audiovisual materials, and field trips		I	X		X	X		X	127
VII.C. The Regions of the United States: Investigates and gathers information about the regions of the United States from many resources, including: the encyclopedia, classroom resource books, cooking, artifacts, A/V materials, and trips when possible.	X	X	X	X	X	X	X	X	128
VII.C.1. The states that make up each region			I	X	X	X			129
VII.C.2. The physical geography of the land in each region			I	X	X	X			130
VII.C.3. The major cities within each region			I	X	X	X			131

# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
VII.C.4. The major natural resources and industries			I	X	X	X			132
VII.C.5. The cultural heritage and traditions of the region			I	X	X	X			133
VII.C.6. The ethnic groups that have settled in the region			I	X	X	X			134
VIII. The Needs Of People: The basic needs that all people share in common and how people satisfy their needs around the world under different environmental conditions. These topics include:	X	X	X	X	X	X	X	X	135
VIII.A. Shelter and housing		I	X	X	X	X	X		136
VIII.B. Clothing		I	X	X	X	X	X		137
VIII.C. Transportation		I	X	X	X	X	X		138
VIII.D. Self-defense		I	X	X	X	X	X		139
VIII.E. Food		I	X	X	X	X	X		140
VIII.F. The lives of typical children		I	X	X	X	X	X		141
VIII.G. Art		I	X	X	X	X	X		142













# Geography Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
X.D. participates in traditional African and	(All								153.6
X.D. 1. Succos (Israel)	Octo								153.61
X.D.2. Diwali (India)	Nov								153.62
X.D.3. Kwanza & African festival (Africa)	Janu								153.63
X.D.4. Chinese New Year (China)	Febr								153.64
X.D.5. Japanese Boy's and Girl's Day (Japan)	Marc								153.65
X.D.6. Smell The Breezes (Egypt)	April								153.66
XI. The Imaginary Island Study	X	X	X	X	X	X	X	X	154
XI.A. develop the coastal features of his/her imaginary island				I	X	X	X	X	155
XI.B. develop the interior geographical features of his/her imaginary island					I	X	X	X	156
XI.C. identify the longitude and latitude of his/her imaginary island							I	X	157

# Geography Scope and Sequence

**Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:**

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
XI.D. identify the climate that would be found on his/her imaginary island							I	X	158
XI.E. identify the flora and fauna of his/her imaginary island							I	X	159
XI.F. identify the topography and drainage patterns of his/her imaginary island							I	X	160
XI.G. identify the people and their culture and history on his/her imaginary island							I	X	161

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
I. Activities to sensorially introduce a sense of the passage and duration of time	X	X	X	X	X	X	X	X	1
I.A. Can distinguish the duration of 1 minute	X	X	X	X	X	X	X	X	2
I.A.1. 1 minutes hourglass type egg timer	I	X	X						3
I.A.2. Sweep second hand of a wall clock	I	X	X						4
I.B. Can distinguish the duration of 2-5 minutes	X	X	X	X	X	X	X	X	5
I.B. 1, 2, 3, 4, & 5 minute hourglass type egg timers	I	X	X						6
I.B.2. Mechanical timers	I	X	X						7
I.B.3. Sweep second hand of a wall clock	I	X	X						8
I.C. Activities to introduce a sense of the passage of periods from one day to a year	X	X	X	X	X	X	X	X	9
I.C.1. Can use the First Time Line to represent the relative ages of people from infants through senior	I	X							10
I.C.2. Can use the Time Line Of A Day to place pictures showing the activities of a child's day in appropriate	I	X							11
I.C.3. The Linear (day-by-day) Calendar along the wall	X	X	X	X	X	X	X	X	12
I.C.3.a. Stage 1: Recording of a simple history of the class' year: daily temperature, weather, birthdays,	I	X	X	X	X				13
I.C.3.b. Stage 2: Recording of a simple history of the class' year: daily temperature, weather, birthdays,		I	X	X	X				14
I.C.3.c. Advanced Extension - A Class History One or more Middle School students are appointed to serve as						X	X	X	15



# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
II.A. Can tell time to the hour	I	X	X						31
II.B. Can tell time to the half hour	I	X	X						32
II.C. Can tell time to the quarter hour		I	X						33
II.D. Can tell time within five minutes			I	X					34
II.E. Can tell time to the minute			I	X	X				35
II.F. Can indicate what time it will be 1-10 hours from the present time			I	X	X				36
II.G. Can calculate the equivalent values in time from seconds to minutes, minutes to hours, and hours to					I	X	X	X	37
II.H. Can explain why the Earth's rotation and its local affect on the position of the sun over the horizon have						I	X		38
II.I. Can calculate the current time in another time zone						I	X	X	39
II.J. Can tell time using the European 24 hour system						I	X	X	40
III. Prehistory	X	X	X	X	X	X	X	X	41
III. A. Activities to give the young child an initial impression of the formation of the Earth and the history	X	X	X	X	X	X	X	X	42
III.A.1. 'How Long Has Mankind Been On Earth?' (A simple time line made of red & blue yarn)	I	X	X						43
III.A.2. The First Time Line Of Earth History	I	X	X						44
III.A.3. The Clock of Eras			I	X	X	X			45



# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
III.B.10.a. Archeozoic					I	X			61
III.B.10.b. Proterozoic					I	X			62
III.B.10.c. Paleozoic					I	X			63
III.B.10.d. Mesozoic					I	X			64
III.B.10.e. Cenozoic					I	X			65
III.B.11. Can differentiate the life of the Precambrian era from that of the Paleozoic era					I	X			66
III.B.12. Differentiates the life of the Mezozoic era from that of the Cenozoic era					I	X			67
III.B.13. Materials and activities to enrich a student’s initial impression of early forms of life	X	X	X	X	X	X	X	X	68
III.B.13.a. initial observation of one celled organisms through a microscope		I	X	X					69
III.B.13.b. collections of model dinosaurs and early mammals	I	X	X						70
III.B.13.c. field trips and hikes to see plants, insects, and other animals that are ‘living fossils present on the		I	X	X		X			71
III.B.14. The Study of Fossils	X	X	X	X	X	X	X	X	72
III.B.14. a. can briefly explain some of the processes by which fossils were formed, such as being buried in			I	X	X	X			73
III.B.14.b. can match given fossils with pictures of the living organism			I	X	X				74
III.B.14.c. can briefly describe the importance of the study of fossils is to scientist’s understanding of the				I	X	X			75

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
III.B.14.d. Activities and materials to enrich a child’s initial interest in the study of fossils	X	X	X	X	X	X	X	X	76
III.B.14.d1. Picture card sets with text			I	X	X	X			77
III.B.14.d2. Collections of fossils with identification labels		I	X	X	X	X			78
III.B.14.d3. ‘make a fossil’ by imprinting the outline of a plant, shell, or animal bones in plaster or clay		I	X	X	X	X			79
III.C. A Study of Early People	X	X	X	X	X	X	X	X	80
III.C.1. Can describe in general terms the stages of human evolution (physical appearance), culture, and	X	X	X	X	X	X	X	X	81
III.C.1.a. Can identify pictures of Australopithecus, Homohabilis, Homoerectus, Neanderthal, and					I	X			82
III.C.1.b. Can briefly describe in general terms how early People met the following basic human needs:	X	X	X	X	X	X	X	X	83
III.C.1.b1. Shelter and housing: including the use of fire					I	X	X	X	84
III.C.1.b2. Clothing					I	X	X	X	85
III.C.1.b3. Transportation					I	X	X	X	86
III.C.1.b4. Defense					I	X	X	X	87
III.C.1. b5. Food gathering, hunting, shepherding, and early agriculture					I	X	X	X	88
III.C.1.b6. The lives of typical children					I	X	X	X	89
III.C.1.b7. The first forms of art					I	X	X	X	90



# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
III.C.1.b8. The first forms of music					I	X	X	X	91
III.C.1.b9. The first forms of social organization: family and tribal units - with a special emphasis on the					I	X	X	X	92
III.C.1.b10. Early jewelry and body-adornment					I	X	X	X	93
III.C.1.b11. Evidence of the earliest forms of religion					I	X	X	X	94
III.C.1. 2. Activities to enrich students' understanding of the life-style and culture of early People	X	X	X	X	X	X	X	X	95
III.C.1.a.. The Story Of Early People: an on-going teacher developed tale of the life of a fictional family		I	X	X					96
III.C.1.b. Picture sets of early People, with text			I	X	X	X			97
III.C.1.c. Collections of artifacts and models			I	X	X	X			98
III.C.1.d. Preparation of our own 'Cave Paintings'			I	X	X	X			99
III.C.1.e. Reference books on early People			I	X	X	X			100
III.C.1.f.. carefully selected excerpts from video films depicting early mankind, such as the first sequence in			I	X	X	X			101
III.C.1.g. construction of hand-made artifacts or models from the Old and New Stone Age, such as flint		I	X	X	X	X			102
III.C. 2. Can describe in general terms and differentiate among the culture and tools of humanity's following	X	X	X	X	X	X	X	X	103
III.C.2.a. Australopithecus					I	X			104
III.C.2.b. Homohabilis					I	X			105

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
III.C.2.c. Homoerectus					I	X			106
III.C.2.d. Neanderthal					I	X			107
III.C.2.e. Cro-Magnon					I	X			108
IV. A First Study of History:	X	X	X	X	X	X	X	X	109
IV.A. The Time Line Of History	X	X	X	X	X	X	X	X	110
IV.A.1. Can identify given centuries along the Time Line of History					I	X	X	X	111
IV.A.2. Can explain why we record dates as being either B.C. or A.D.					I	X	X	X	112
IV.A.3. Can place the historical picture and text cards along the Time Line of History on the centuries					I	X	X	X	113
IV.B. The Needs Of People: How people have met their basic needs throughout history, touching lightly on the	X	X	X	X	X	X	X	X	114
IV.B.1. These topics include	X	X	X	X	X	X	X	X	115
IV.B.1.a. A history of shelter and housing			I	X	X	X	X	X	116
IV.B.1.b. A history of clothing			I	X	X	X	X	X	117
IV.B.1.c. A history of transportation			I	X	X	X	X	X	118
IV.B.1.d. A history of defense			I	X	X	X	X	X	119
IV.B.1.f. The lives of typical children			I	X	X	X	X	X	120

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
IV.B.1.g. A history of art			I	X	X	X	X	X	121
IV.B.1.h. A history of music			I	X	X	X	X	X	122
IV.B.1.i. A history of government, rulers, and the rights of the common citizen			I	X	X	X	X	X	123
IV.B.1.j. A history of jewelry and body-adornment			I	X	X	X	X	X	124
IV.B.1.k. The development of religion			I	X	X	X	X	X	125
IV.B.2. Can describe the differences in life styles between hunter-food gathering societies, nomadic			I	X	X	X	X	X	126
IV.B.3. Can describe how the development of agriculture and the formation of permanent settlements				I	X	X	X	X	127
IV.B.4. Can explain why settlements normally were made on the banks of lakes and streams, or in				I	X	X	X	X	128
IV.B.5. Materials and activities to enrich the student's understanding and interest:	X	X	X	X	X	X	X	X	129
IV.B.5.a. The Time Line Of History used with card sets with pictures and simple text for each topic given above				I	X	X	X	X	130
IV.B.5.b. Children's books on historical periods		I	X	X	X	X	X	X	131
IV.B.5.c. Collections of classic myths and tales retold for children age 6-9			I	X	X	X	X	X	132
IV.B.5.d. Dolls, artifacts, model buildings, toy soldiers, and costumes			I	X	X	X	X	X	133
IV.B.5.e. Informal dramatizations acting out famous historical events			I	X	X	X	X	X	134
IV.B.5.f. Audiovisual aids on the period: films, filmstrips, and videotapes				I	X	X	X	X	135

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
IV.B.5.g. Feasts recreating a historical menu			I	X	X	X	X	X	136
IV.C. Historical Holidays —All grade levels—NOTE: The school focuses on the geography and culture of the									137
IV.C.1. Native American Indian Heritage Day	Sep								138
IV.C.2. Columbus Day: The discovery of America	Oct								139
IV.C.3. Veteran’s Day: The story of the American soldier	No								140
IV.C.4. Thanksgiving: The story of the pilgrims	No								141
IV.C.5. A Colonial American Christmas	Dec								142
IV.C.6. Martin Luther King’s Day & Black History month	Jan								143
IV.C.7. Abraham Lincoln’s Birthday	Feb								144
IV.C.8. George Washington’s Birthday									145
IV.C.9. Founder’s Day: The history of Barrie	Apr								146
IV.C.10. The Medieval Festival	May								147
V. How To Study A Historical Civilization	X	X	X	X	X	X	X	X	148
V.A. Can use a historical atlas to gather information about the natural environment of a civilization						I	X		149
V.B. Can use a historical atlas to determine the sites of a past civilization’s major population centers, and offer						I	X		150

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
V.C.. Can take simple, but accurate, notes of essential information about a historical civilization as it is						I	X		151
V.D. Can use the encyclopedia and library reference books to gather background information about a						I	X		152
V.E. Can prepare a well written research report on a civilization, answering any one or more of the 'Basic	X	X	X	X	X	X	X	X	153
V.E.1.. Can record key information from reference books and materials on index 'keyed' note cards						I	X	X	154
V.E.2. Can prepare an outline to be followed in writing the research report						I	X	X	155
V.E.3. Can prepare a table of contents for the report						I	X	X	156
V.E.4. Can prepare a bibliography for the report						I	X	X	157
V.E.5. Ties this all together into a well written and illustrated report						I	X	X	158
V.F.. Materials and activities to expand student's interest, understanding, and appreciation for history	X	X	X	X	X	X	X	X	159
V.F.1.. The Time Line Of History used with card sets with pictures and descriptive text, providing a survey of						I	X	X	160
V.F.2.. Collections of each civilization's classic tales, myths, and legends						I	X	X	161
V.F.3. Dolls, artifacts, model buildings, toy soldiers, and costumes						I	X	X	162
V.F.4. Construction of model buildings, diaramas, tools, and artifacts						I	X	X	163
V.F.5. Preparation of artwork imitating that of the civilization						I	X	X	164
V.F.6. Performance of a dance or some music from the past civilization						I	X	X	165

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
V.F.7. Informal dramatizations acting out famous historical events						I	X	X	166
V.F.8.. Performance of a play from or about the past civilization						I	X	X	167
V.F.9. Audiovisual aids on the period: films, filmstrips, and videotapes						I	X	X	168
V.F.10. Feasts recreating a menu typical of a given period						I	X	X	169
V.G. An Introduction To Archeology	X	X	X	X	X	X	X	X	170
V.G.1.. Can explain the focus of archeology, and describe the process of actually conducting an						I	X	X	171
V.G.2.. Can explain the Carbon 12 dating process and why it is so important in archeology						I	X	X	172
V.G.3.. Can describe at least one famous archeologist and how he/she made his/her 'discovery'						I	X	X	173
V.G.4. Appreciates why the remaining buildings and artifacts from past civilizations (and even our more						I	X	X	174
VI. The Study Of Ancient Civilizations	X	X	X	X	X	X	X	X	175
VI.A. Basic Research Questions: Using Sumeria as a first exempld, studied by the entire class in depth,	X	X	X	X	X	X	X	X	176
VI.A. 1. The Historical Time Frame	X	X	X	X	X	X	X	X	177
VI.A.1.a. 'What were the dates during which this cilvilization developed, flourished, and declined?'						I	X		178
VI.A.1.b. 'What other major cilvilizations were in existence during this period?'						I	X		179
VI.A.1.c. 'How many centuries ago did this civilization flourish?'						I	X		180

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VI.A.1.d. 'For how many centuries did this civilization last?'						I	X		181
VI.A. 2. Natural Environment	X	X	X	X	X	X	X	X	182
VI.A.2.a. 'What was their land like during this period?'						I	X		183
VI.A.2.b. 'What was their climate during this period?'						I	X		184
VI.A.2.c. 'What plants and animals were present in their part of the world during this period?'						I	X		185
VI.A.3. Daily Life	X	X	X	X	X	X	X	X	186
VI.A.3.a. 'How did they dress?'	X	X	X	X	X	X	X	X	187
VI.A.3.b. 'What did they eat?'						I	X		188
VI.A.3.c. 'What kind of homes and other structures did they build?'						I	X		189
VI.A.3.d. 'How did they furnish and decorate their homes?'						I	X		190
VI.A.3.e. 'What tools and household utensils did they use?'						I	X		191
VI.A.3.f. 'What was their family structure like?'						I	X		192
VI.A.3.g. 'How did they educate their children?'						I	X		193
VI.A.4. Human Activities	X	X	X	X	X	X	X	X	194
VI.A.4.a. 'What kind of agriculture did they practice? What crops did they grow? What animals did they						I	X		195

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VI.A.4.b. ‘What kinds of industry did they develop?’						I	X		196
VI.A.4.c. ‘How did they carry on daily commerce? What items were traded in their markets? Did they use						I	X		197
VI.A.4.d. What kind of trade did they carry on? What did they trade, and who did they trade with? How did						I	X		198
VI.A.4.e. ‘What did their civilization ‘borrow’ from contact with their neighbors and more distant						I	X		199
VI.A.4.f. ‘In what kinds of recreation did they participate?’						I	X		200
VI.A.5. Social Development	X	X	X	X	X	X	X	X	201
VI.A.5.a. ‘Where did they come from originally?’						I	X		202
VI.A.5.b. ‘How well did their environment suit their needs?’						I	X		203
VI.A.5.c. ‘What kind of government did they have?’						I	X		204
VI.A.5.d. ‘What was the class structure of their society?’						I	X		205
VI.A.5.e. ‘What was their attitude toward war and defense?’						I			206
VI.A.6. Expressions of Civilization	X	X	X	X	X	X	X	X	207
VI.A.6.a. ‘What language did they speak?’						I	X		208
VI.A.6.b. ‘How did they write?’						I	X		209
VI.A.6.c. ‘What was their religion like? What holidays did they celebrate? How did their religion affect their						I	X		210



# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VI.A.6.d. ‘What was their literature? Retell some of their most famous tales, myths, and legends.’						I	X		211
VI.A.6.e. ‘What was their art and music like?’ Identify examples of their art and music (if any has survived)’						I	X		212
VI.A.6.f. ‘What did they invent or discover?’						I	X		213
VI.A.6.g. ‘Who were there most famous men and women? What were their contributions?’						I	X		214
VI.A.7. The Archeological Record	X	X	X	X	X	X	X	X	215
VI.A.7.a. ‘What archeological evidence do we have that tells us the answers to the questions above?’						I	X		216
VI.A.7.b. ‘What are the greatest ‘mysteries’ still confronting scientists about this civilization?’						I	X		217
VI. B. The Sequence of Ancient Civilizations Studied	X	X	X	X	X	X	X	X	218
VI.B.1. Sumeria							X		219
VI.B.2. Egypt							X		220
VI.B.3. Babylonia							X		221
VI.B.4. Assyrians							X		222
VI.B.5. Persia							X		223
VI.B.6. The Indus Valley (Davidian) Civilizations							X		224
VI.B.7. China							X		225

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VI.B.8. Phoenicians							X		226
VI. 9. Greece							X		227
VI.B.10. Rome							X		228
VI.B.11. The Middle Ages							X		229
VII. American Studies: PreColumbian Cultures to the American Revolution	X	X	X	X	X	X	X	X	230
VII.A. Pre-Columbian History	X	X	X	X	X	X	X	X	231
VII.A.1. Can describe the first migration of Cro-Magnon people to the New World, and the land							I	X	232
VII.A.2. Using the ‘Basic Research Questions’ given above, can describe the culture and technology of the:	X	X	X	X	X	X	X	X	233
VII.A.2.a. First Cro-Magnon ‘Americans’							I	X	234
VII.A.2.b. Upper Old Stone Age							I	X	235
VII.A.2.c. Middle Stone Age							I	X	236
VII.A.2.d. New Stone Age							I	X	237
VII.A.2.e. Copper And Bronze Age							I	X	238
VII.A.2.f. Iron Age							I	X	239
VII.A.2.g. Paleo-Indians							I	X	240



# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VII.B.7.a.. The Vikings							I	X	256
VII.B.7.b. Columbus							I	X	257
VII.B.7.c. Cortez, Pizzaro, and the Conquistadores							I	X	258
VII.B.7.d. The major English explorers							I	X	259
VII.B.7.e. The major French explorers - The Priests and Voyageurs							I	X	260
VII.C. Colonial America	X	X	X	X	X	X	X	X	261
VII.C.1. Can retell the story of the founding of the first settlement at Jamestown							I	X	262
VII.C.2. Can retell the story of the Pilgrim’s and the founding of the Plymouth colony							I	X	263
VII.C.3. Can describe the relationship between the early American colonists and the native indian peoples							I	X	264
VII.C.4. Can identify the original 13 American colonies							I	X	265
VII.C.5. Using the ‘Basic Research Questions’ given above, can describe the life style, climate, housing,							I	X	266
VII.C.6. The institution of slavery as it was practiced in America	X	X	X	X	X	X	X	X	267
VII.C.6.a. Can identify the areas where most slaves were taken from and the process of the slave trade							I	X	268
VII.C.6.b. Can describe the life of typical field hands, house slaves, craftsmen, and freemen in Colonial							I	X	269
VII.C.6.c. Can explain the economic and social rationales that were used to justify the institution of							I	X	270

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VII.C.7. Can describe the role of women in early America							I	X	271
VII.C.8. Can identify the major cities of Colonial America							I	X	272
VII.C.9. Can describe the major forces and events that led to the Declaration of Independence and Revolution							I	X	273
VII.C.10. Can identify and briefly describe the roles of the following American patriots: George Washington,							I	X	274
VII.C.11. Can summarize the importance of the ideas contained in the Declaration of Independence							I	X	275
VII.D. The United States	X	X	X	X	X	X	X	X	276
VII.D.1. Can describe the process of the United State’s westward territorial expansion							I	X	277
VII.D.2. Can describe the motivations that led the settlers to move west, and the difficulties that they							I	X	278
VII.D.3. Can describe the relationship between the United States government, the pioneers, and the native							I	X	279
VII.D.4. Can briefly describe the development of American industry and the growth of the cities							I	X	280
VII.D.5. Can describe the factors that led to the Civil War: slavery, regional jealousies, economics, and							I	X	281
VII.D.6. Can describe in simple terms the major events of the Civil War, and identify the roles of Lee, Jefferson							I	X	282
VII.D.7. Can describe the major inventions and changes in life style that developed between 1860 and 1920							I	X	283
VII.D.8. Can briefly describe the major issues and events of the first and second World Wars							I	X	284
VII.D.9. Can describe the major inventions and changes in life style that developed after 1920							I	X	285

# History Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Serial #
VII.D.10. Can identify the major European, African, & Asian sources of the American people							I	X	286
VII.D.11. Can identify the most famous American inventors							I	X	287
VII.D.12. Can differentiate between legendary American heroes and real heroes							I	X	288
VII.D.13. Can briefly summarize the history of Florida								X	289
VIII. Citizenship	X	X	X	X	X	X	X	X	290
VIII.A. The Presidents of the United States	X	X	X	X	X	X	X	X	291
VIII.A.1. Can name the Presidents of the United States in their order of office					I	X	X	X	292
VIII.B. Can briefly describe the relative roles of national, state, and local governments in our lives					I	X	X	X	293
VIII.C. Can describe in simple terms the functions of the three branches of the federal government					I	X	X	X	294
VIII.D. Can explain how the jury system functions					I	X	X	X	295
VIII.E. Can explain the rights guaranteed to all Americans under the Constitution					I	X	X	X	296

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
I. Introduction - Can distinguish between living & non-living (organic & non-organic) materials	I	X	X						1
II. Life on the Earth:	X	X	X	X	X	X	X	X	2
II.A. Introduction	X	X	X	X	X	X	X	X	3
II.A.1. Distinguish between plants and animals	I	X	X						4
II.A.2. Describe the basic characteristics of plants and animals	I	X	X						5
II.A.3. Give several examples of the characteristic differences between plants & animals		I	X	X					6
II.B. A study of animals	X	X	X	X	X	X	X	X	7
II.B.1. Level 1 (First lessons)	X	X	X	X	X	X	X	X	8
II.B.1.a. Identify common forest animals	I	X	X						9
II.B.1.b. Identify common farm animals	I	X	X						10
II.B.1.c. Identify animals that live in the water	I	X	X						11
II.B.1.d. Identify common birds	I	X	X						12
II.B.1.e. Identify the names for the young of familiar animals found within the families of mammals, fish, birds, and amphibians	I	X	X						13

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.B.1.f. Explain in simple terms how the young of familiar animals from the families of mammals, fish, birds, and amphibians are born	I	X	X						14
II.B.1.g. Identify animals from around the world	I	X	X						15
II.B. 2. Level 2 (Vertebrates)	X	X	X	X	X	X	X	X	16
II.B.2.a. Describe the basic characteristics that distinguish each of the five following families of animals:	X	X	X	X	X	X	X	X	17
II.B.2.a1. Mammals	I	X	X						18
II.B.2.a2. Fish	I	X	X						19
II.B.2.a3. Birds	I	X	X						20
II.B.2.a4. Amphibians	I	X	X						21
II.B.2.a5. Reptiles	I	X	X						22
II.B.3. Level 3 (Invertebrates)	X	X	X	X	X	X	X	X	23
II.B.3.a. Describe the basic characteristics that distinguish each of the four additional families of animals that follow:	X	X	X	X	X	X	X	X	24
II.B.3.a1. Insects		I	X	X					25
II.B.3.a2. Molluscs		I	X	X					26



# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.B.3.a3. Crustaceans		I	X	X					27
II.B.4. Classification Chart of the Animal Kingdom	X	X	X	X	X	X	X	X	28
II.B.4.a. Classify vertebrates on the chart				I	X	X	X		29
II.B.4.b. Classify invertebrates on the chart				I	X	X	X		30
II.B.5. A first study of the comparisons among the characteristics of vertebrates	X	X	X	X	X	X	X	X	31
II.B.5.a. Compare differences and similarities between the ears of vertebrates					I	X	X		32
II.B.5.b. Compare differences and similarities between the eyes of vertebrates					I	X	X		33
II.B.5.c. Compare differences and similarities between the mouths, bills, and beaks of vertebrates					I	X	X		34
II.B.5.d. Compare differences and similarities between the teeth of vertebrates					I	X	X		35
II.B.5.e. Compare differences and similarities between the limbs of vertebrates					I	X	X		36
II.B.5.f. Compare differences and similarities between the feet, hooves, claws, and paws of vertebrates					I	X	X		37
II.B.5.g. Compare differences and similarities between the skin and skin modifications (camouflage) of vertebrates					I	X	X		38
II.B.5.h. Compare differences and similarities between the locomotion of common vertebrates					I	X	X		39



# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.B.6.b3b. Describe how animals that live in the desert have adapted to their environment	I	X	X	X	X	X	X		53
II.B.6.b3c. Describe how the animals of the arctic regions have adapted to their environment	I	X	X	X	X	X	X		54
II.B.6.b3d. Describe how the animals of the coral reef have adapted to their environment			I	X	X	X	X		55
II.B.6.b3e. Describe how microscopic life forms have adapted to their environment				I	X	X	X		56
II.B.6.b3f. Describe how animals that live in caves have adapted to their environment				I	X	X	X		57
II.B.6.b3g. Describe how animals that live in the tropics/subtropics have adapted to their environment.		I	X	X	X	X	X		57.1
II.B.6.c. Animal Reproduction	X	X	X	X	X	X	X	X	58
II.B.6.c1. Describe how microscopic organisms reproduce by unicellular fission					I	X	X		59
II.B.6.c2. Describe how birds reproduce					I	X	X		60
II.B.6.c3. Describe how fish reproduce					I	X	X		61
II.B.6.c4. Describe how mammals reproduce					I	X	X		62
II.B.6.c5. Describe how reptiles reproduce					I	X	X		63
II.B.6.c6. Describe human reproduction					I	X	X		64

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.B.6.d. A simple introduction to animal defense	X	X	X	X	X	X	X	X	65
II.B.6.d1. Identify and Describe familiar animals that use camouflage as a defense		I	X	X					66
II.B.6.d2. Identify and Give examples of familiar animals that look scary as a defense		I	X	X					67
II.B.6.d3. Identify and Give examples of familiar animals that look inedible as a defense		I	X	X					68
II.B.6.d4. Defensive behaviors		I	X	X					69
II.B.7. External Anatomy of Animals	X	X	X	X	X	X	X	X	70
II.B.7.a. Name the external body parts of familiar mammals	I	X	X						71
II.B.7.b. Name the external body parts of birds	I	X	X						72
II.B.7.c. Name the external body parts of amphibians	I	X	X						73
II.B.7.d. Name the external body parts of fish	I	X	X						74
II.B.7.e. Name the external body parts of reptiles	I	X	X						75
II.B. 8. Internal Anatomy of Animals	X	X	X	X	X	X	X	X	76
II.B.8.a. Describe that the bodies of animals are organized into organ systems which carry out distinct life functions		I	X	X	X	X	X		77

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.B.8.b. Explain the function of the heart and circulatory system			I	X	X	X	X		78
II.B.8.c. Explain the function of the lungs in air breathing animals			I	X	X	X	X		79
II.B.8.d. Explain the function of the gills in water breathing animals				I	X	X	X		80
II.B.8.e. Explain the function of the skeletal system in vertebrates			I	X	X	X	X		81
II.B.8.f. Explain the role of the exoskeletal system in crustaceans				I	X	X	X		82
II.B.8.g. Explain the function of the digestive system				I	X	X	X		83
II.B.8.h. Explain the function of the glandular system				I	X	X	X		84
II.B.8.i. Explain the function of the excretory system				I	X	X	X		85
II.B.8.j. Explain the function of the muscular system				I	X	X	X		86
II.B. 9 Mankind's relationship to animals	X	X	X	X	X	X	X	X	87
II.B.9.a. Identify familiar animals that are commonly eaten		I	X	X					88
II.B.9.a1. Offer a brief history of mankind as a hunter of wild animals				I	X	X	X		89
II.B.9.a2. Offer a brief history of the domestication of farm animals raised for food				I	X	X	X		90

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.B.9.a3. Offer a brief history of man as agronomist - gatherer				I	X	X	X		90.1
II.B.9.a4. Offer arguments for & against vegetarianism, and state his/her personal beliefs						I	X		91
II.B.9.b. Describe the common animal food products, such as milk and cheese, that people eat		I	X	X					92
II.B.9.c. Describe the other common uses that people find for animal by-products, such as leather, bone, fertilizer			I	X	X	X	X		93
II.B.9.d. Animal husbandry	X	X	X	X	X	X	X	X	94
II.B.9.d1. Care for classroom pets	I	X	X	X	X	X	X	X	95
II.B.9.d2. Care for small farm animals		I	X	X	X	X	X	X	96
II.B.9.d3. Summarize the story of the domestication of common farm animals (See also History)					I	X	X		97
II.B.9.d4. Describe the operation of a traditional farm					I	X	X	X	98
II.B.9.d5. Describe the operation of a modern farm					I	X	X	X	99
II.B.10. Identify the following animals on field hikes or from pictures (without a field guide):	X	X	X	X	X	X	X	X	100
II.B.10.a. Identify common reptiles		I	X	X	X				101
II.B.10.b. Identify common amphibians		I	X	X	X				102

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.B.10.c. Identify common fish		I	X	X	X				103
II.B.10.d. Identify common insects & spiders		I	X	X	X				104
II.B.10.e. Identify common crustaceans		I	X	X	X				105
II.B.10.f. Identify common molluscs		I	X	X	X				106
II.B.11. Use field guides to Identify the following animals on field hikes and from pictures:	X	X	X	X	X	X	X	X	107
II.B.11.a. Identify breeds of dogs, cats, horses, and farm animals						I	X	X	108
II.B.11.b. Identify common mammals						I	X	X c.	109
II.B.11.e. Identify common amphibians						I	X	X	110
II.B.11.f. Identify common fish						I	X	X	111
II.B.11.g. Identify common insects & spiders						I	X	X	112
II.B.11.h. Identify common crustaceans						I	X	X	113
II.B.11.i. Identify common molluscs						I	X	X	114
II.B.12. Write descriptive animal stories			I	X	X				115

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.B.13. Animal lore	X	X	X	X	X	X	X	X	116
II.B.13.a. Describe the daily routines of the common animals found in our local forests, meadows, pond, and streams					I	X	X		117
II.B.13.b. Recognize and imitate the calls of common vertebrates					I	X	X		118
II.B.14. A study of living cells with the microscope	X	X	X	X	X	X	X	X	119
II.B.14.a. Explain that cells are basic structures of the majority of living things: plants & animals			I	X	X	X			120
II.B.14.b. Identify the following parts of a cell observed under a microscope: nucleus, cell membrane, cytoplasm, cell wall, chloroplast, and vacuole					I	X	X	X	121
II.B.14.c. Identify that there are different types of cells within an organism					I	X	X		122
II.B.14.d. Distinguish similarities and difference between plant and animal cells					I	X	X		123
II.B.14.e. Explain that growth is a result of cell division					I	X	X		124
II.C. Botany	X	X	X	X	X	X	X	X	125
II.C.1. Plant identification - Level 1	X	X	X	X	X	X	X	X	126
II.C.1.a. Identify common characteristics of plants		I	X	XX	X	X			127
II.C.1.b. Identify common trees around the school		I	X	XX	X	X			128



# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.C.1.c. Identify common plants in the classroom		I	X	XX	X	X			129
II.C.1.d. Identify common garden flowers		I	X	XX	X	X e.		I	130
II.C.2. Plant identification - Level 2	X	X	X	X	X	X	X	X	131
II.C.2.a. Identify common trees by their wood			I	X	X	X	X		132
II.C.2.b. Identify the common shrubs and bushes that are found around the school			I	X	X	X	X		133
II.C.2.c. Use a field guide to Identify unfamiliar trees, grasses, shrubs, bushes, garden flowers, and wild flowers						I	X	X	134
II.C.2.d. Identify familiar trees by their shape and bark					I	X	X	X	135
II.C.3. Classification chart of the plant kingdom	X	X	X	X	X	X	X	X	136
II.C.3.a. Differentiate between monocots and dicots						I	X		137
II.C.3.b. Differentiate between bryophytes and tracheophytes						I	X		138
II.C.3.c. Differentiate between angiosperms and gymnosperms						I	X		139
II.C.3.d. Classify angiosperms						I	X		140
II.C.3.e. Classify gymnosperms						I	X		141

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.C.4. Parts of a plant	X	X	X	X	X	X	X	X	142
II.C.4.a. Identify the parts of a flower		I	X	X	X	X	X		143
II.C.4.b. Identify the parts of a tree		I	X	X	X	X	X		144
II.C.4.c. Identify the parts of a leaf			I	X	X	X	X		145
II.C.5. Types and functions of plant parts	X	X	X	X	X	X	X	X	146
II.C.5.a. Explain the basic function of roots		I	X	X	X	X	X		147
II.C.5.a1. Identify the basic botanical terms for root types						I	X		148
II.C.5.b. Explain the basic function of plant leaves		I	X	X	X	X	X		149
II.C.5.b1. Explain that light energy is needed for green plants to produce food		I	X	X	X	X	X		150
II.C.5.b2. Explain the function of leaves and the process of photosynthesis				I	X	X	X		151
II.C.5.b3. Identify the basic requirements for plants to carry on photosynthesis				I	X	X	X		152
II.C.5.b4. Distinguish between deciduous and evergreen plants			I	X	X	X	X		153
II.C.5.b5. Identify the basic botanical terms for leaf shapes				I	X	X	X		154

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.C.5.b6. Identify the basic botanical terms for leaf margins					I	X	X		155
II.C.5.b7. Identify the basic botanical terms for leaf venation					I	X	X		156
II.C.5.c. Explain the basic function of plant stems		I	X	X	X	X	X		157
II.C.5.c1. Demonstrate the process of circulation within the plant stem system			I	X	X	X	X		158
II.C.5.c2. Demonstrate how to determine the age of a tree by counting its rings				I	X	X	X		159
II.C.5.d. Explain the function of flowers		I	X	X	X	X	X		160
II.C.5.d1. Explain the role of insects in pollination				I	X	X	X		161
II.C.5.e. Explain the function of fruits		I	X	X	X	X	X		162
II.C.5.e1. Identify the parts of a fruit					I	X	X		163
II.C.5.e2. Recognize that all fruits have seeds inside		I	X	X	X	X	X		164
II.C.5.e3. Differentiate between dry fruits and succulent fruits					I	X	X		165
II.C.5.f. Explain the function of seeds		I	X	X	X	X	X		166
II.C.5.f1. Identify the parts of a seed						I	X		167

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.C.6. Basic needs of plants	X	X	X	X	X	X	X	X	168
II.C.6.a. Demonstrate that plants need light, warmth, water and minerals	I	X	X	X	X	X	X		169
II.C.6.b. Demonstrate that plants contain water		I	X	X	X	X	X		170
II.C.6.c. Explain and Demonstrate that plants adapt to their environment		I	X	X	X	X	X		171
II.C.6.d. Demonstrate that plants grow in predictable patterns		I	X	X	X	X	X		172
II.C.6.e. Demonstrate that plants need soil		I	X	X	X	X	X		173
II.C.6.e1. Demonstrate that soil is a mixture of living and non-living substances			I	X	X	X	X		174
II.C.6.e2. Explain the relationship between the different types of soil and the amount of water that each holds			I	X	X	X	X		175
II.C.7. How mankind uses plants	X	X	X	X	X	X	X	X	176
II.C.7.a. Identify plants that we eat	I	X	X	X	X	X	X		177
II.C.7.b. Explain how trees are harvested commercially to make lumber for building & furniture		I	X	X	X	X	X		178
II.C.7.b1. Distinguish between hard and soft woods			I	X	X	X	X		179
II.C.7.c. Identify plants from which we make clothing		I	X	X	X	X	X		180



# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.C.10.a7. Explain how a cold frame is used to start seedlings safely before the danger of frost has past							X		194
II.C.10.a8. Weed a garden	I	X	X	X	X	X	X	X	195
II.C.10.a9. Participate in raising a class crop of easily grown vegetables		I	X	X	X	X	X	X	196
II.C.10.a10. Design the layout and planting schedule for a vegetable garden					I	X	X	X	197
II.C.10.a11. Demonstrate how to successfully raise vegetables in containers					I	X	X	X	198
II.C.10.a12. Use stakes and trellises to support plants that need it					I	X	X	X	199
II.C.10.a13. Discuss pros and cons of chemical fertilizers vs. organic; discuss personal feelings about issue.						I	X	X	200
II.C.10.a14. Identify common organic fertilizers and pest controls and how to use them in a garden						I	X	X	201
II.C.10.a15. Explain the importance of preventing food from being spoiled by insects, rodents, and micro-organisms						I	X	X	202
II.C.10.a16. Explain the dangers of food poisoning and ways to avoid it				I	X	X			203
II.C.10.a17. Explain the role of cooking foods to kill any micro-organisms				I	X	X			204
II.C.10.a18. Explain the rationale for always washing fresh fruit and vegetables carefully before eating				I	X	X			205
II.C.10.a19. Explain the role of refrigeration on retarding the spoilage of food				I	X	X			206

# Science Scope and Sequence

**Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:**

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.C.10.a20. Explain the technique and participate in the process of canning food in mason jars						I	X	X	207
II.C.10.a21. Explain and Demonstrate the technique of preparing foods for freezing						I	X	X	208
II.C.10.a22. Explain and Demonstrate the technique of drying foods						I	X	X	209
II.C.10.a23. Explain and Demonstrate the technique of pickling foods						I	X	X	210
II.C.10.a24. Explain the technique of freeze drying food							X	X	211
II.D. Ecology	X	X	X	X	X	X	X	X	212
II.D.1. Participate in web of life activities		I	X	X					212.1
II.D.2. Explain the concept of the web of life				I	X	X	X		213
II.D.3. Explain that biomes are ecological communities of plants and animals				I	X	X	X		214
II.D.4. A second study of the food chain	X	X	X	X	X	X	X	X	215
II.D.4.a. Explain that each organism in a food chain performs a distinct role					X	X	X		216
II.D.4.b. Identify the predator/prey relationship between two familiar animals					X	X	X		217
II.D.4.c. Explain the role of scavengers and decomposers in the environment					X	X	X		218

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.D.4.c1. Explain that some nongreen plants feed upon dead or decaying matter					X	X	X		219
II.D.4.c2. Demonstrate how forest decomposers turn humus into soil					X		X		220
II.D.4.c3. Demonstrate and discuss difference between bio-degradable and recyclable and non-degradable	I	X	X	X	X	X	X		220.1
II.D.4.c4. Demonstrate how various organisms act upon a dead tree to decompose it					X	X	X		221
II.D.4.C5. Participate in recycling using compost.	I	X	X	X	X	X	X		221.1
II.D.4.c6. Construct and operate a compost pile				I	X	X	X		222
II.D.4.c7. Explain that energy is recycled in an ecosystem through decomposition of matter				I	X	X	X		223
II.D.4.c8. Construct a web of life that shows the ecological relationships among all of the living things in a community				I	X	X	X		224
II.D.4.d. Identify what familiar animals eat				I	X	X	X		225
II.D.4.e. Identify plants and animals in an ecosystem that are dependent upon one another					I	X	X		226
II.D.4.f. Construct a terrarium food chain					I	X	X		227
II.D.4.g. Construct an aquarium food chain					I	X	X		228
II.D.4.h. Distinguish between the successive stages of forest development, from meadow to climax forest					I	X	X		229





# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
II.D.5.b1. Offer a survey of the problem of air pollution						I	X	X	243
II.D.5.b2. Explain the major causes of air pollution		I	X	X	X	X	X	X	244
II.D.5.b3. Offer ideas about what can be done about the problem of air pollution						I	X	X	245
III. PHYSICAL SCIENCE: Upon completion of the grade level(s) indicated below, the student should be able to:	X	X	X	X	X	X	X	X	246
A. Matter	X	X	X	X	X	X	X	X	247
III.A.1. Distinguish between objects that sink and float	I	X							248
III.A.2. Identify things as solids, liquids, or gases		I	X						249
III.A.3. Demonstrate that air occupies space by ‘pouring air’ under water	I	X							250
III.A.4. Demonstrate that an object’s appearance can change while its material substance remains the same e.g. (ice, water, steam)		I	X						251
III.A.5. Demonstrate that two objects cannot occupy the same space at the same time	I	X	X						252
III.A.6. Demonstrate that a liquid behaves in different ways on surfaces made of different materials	I	X	X						253
III.A.7. Explain that matter can change from one form to another because of a change in temperature			I	X	X	X			254
III.A.8. Demonstrate and Explain the distinction between evaporation and condensation			I	X	X				255

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.A.9. Explain the basic structure of atoms			I	X	X	X	X	X	256
III.A.10. Differentiate between the nature of protons, electrons, and neutrons in atomic structure			I	X	X	X	X	X	257
III.A.11. Demonstrate that in physical change, matter changes in form but not in substance				I	X	X	X	X	258
III.A.12. Demonstrate that in chemical change, matter changes in substance as well as form				I	X	X	X	X	259
III.A.13. Demonstrate that different temperatures cause materials to expand or contract				I	X	X	X	X	260
III.A.14. Explain that a mixture is composed of individual substances that retain their identity when mixed and can be recovered in their original form by ordinary means			I	X	X	X	X	X	261
III.A.15. Demonstrate that elements can be combined to form compounds with properties different from those of the combining element			I	X	X	X	X	X	262
III.A.16. Differentiate between chemical elements and compounds			I	X	X	X	X	X	263
III.A.17. Explain that molecules are the smallest particles of a compound that still have all its properties			I	X	X	X	X	X	264
III.A.18. Describe matter as being composed of molecules which are in constant motion			I	X	X	X	X	X	265
III.A.19. Investigate and gather information about common elements from the encyclopedia				I	X	X	X		266
III.A.20. Give the chemical symbol & atomic structure of specified elements				I	X	X	X	X	267
III.A.21. Identify the chemical formulas for specified familiar compounds				X	X	X	X	X	268

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.A.22. Prepare research reports on the nature and our use of elements and compounds					X	X	X	X	269
III.A.23. Distinguish between a physical and a chemical change				I	X	X	X	X	270
III.A.24. Explain that the total amount of matter is not changed during a chemical or physical change				I	X	X	X	X	271
III.A.25. Demonstrate that density determines whether an object sinks or floats				I	X	X	X		272
III.A.26. Explain the basic principles of fire and combustion				I	X	X	X	X	273
III.A.27. Differentiate between acids and bases					I	X	X	X	274
III.A.28. Prepare solutions and mixtures					I	X	X	X	275
III.A.29. Explain the basic physical properties of liquids					I	X	X	X	276
III.A.30. Explain the basic physical properties of gases					I	X	X	X	277
III.A.31. Explain the basic physical properties of solids					I	X	X	X	278
III.A.32. Explain the basic principles of water pressure					I	X	X	X	279
III.A.33. Explain the basic principles of air pressure					I	X	X	X	280
III.A.34. Use an overflow basin to measure the volume of irregular solids					I	X	X	X	281

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.A.35. Recognize and can Identify common energy transformations					I	X	X	X	282
III.A.36. Describe the relative motion of an object with respect to the position or motion of another object					I	X	X		283
III.B. Energy	X	X	X	X	X	X	X	X	284
III.B.1. Recognize that some objects are attracted by magnets and others are not	I	X							285
III.B.2. Match sounds with their source	I	X							286
III.B.3. Demonstrate that a push or pull is needed to move an object	I	X							287
III.B.4. Set up a closed electrical circuit		I	X	X	X	X			288
III.B.5. Identify that sounds are produced by different sources and methods	I	X	X	X					289
III.B.6. Distinguish among materials that block the passage of light completely, allow some light to pass through, and pass light completely, identifying them as opaque, semi-opaque, and transparent		I	X	X	X	X	X	X	290
III.B.7. Demonstrate that changing an object's position in relationship to a light source changes the appearance of its shadow		I	X	X					291
III.B.8. Distinguish between conductors and nonconductors			I	X					292
III.B.9. Demonstrate that energy in the form of electro- magnetism can create motion			I	X	X				293
III.B.10. Identify types of fossil fuels, how they were formed, and how they are used			I	X	X	X	X	X	294

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.B.11. Identify the sun as a type of fuel, how it's captured and how it's used.			I	X	X	X	X		294.1
III.B.12. Describe ways to conserve natural resources		I	X	X	X	X	X	X	295
III.B.13. Demonstrate that water pressure can cause objects to move			I	X	X	X	X	X	296
III.B.14. Demonstrate that air pressure can cause objects to move			I	X	X	X	X	X	297
III.B.15. Identify sounds as a form of energy			I	X	X	X	X	X	298
III.B.16. Demonstrate that sound waves travel through solids, liquids, and gases			I	X	X	X	X	X	299
III.B.17. Demonstrate that light travels only in straight lines			I	X	X	X	X	X	300
III.B.18. Demonstrate that objects become visible only when light is reflected from them			I	X	X	X	X	X	301
III.B.19. Demonstrate that light bends when it passes from one medium to another			I	X	X	X	X	X	302
III.B.20. Identify light as a form of energy			I	X	X	X	X	X	303
III.B.21. Demonstrate that darker colors absorb more light energy than light colors			I	X	X	X	X	X	304
III.B.22. Demonstrate that mirrors and other highly reflective materials absorb almost no light energy			I	X	X	X	X	X	305
III.B.23. Explain why objects reflected in a mirror appear to be reversed			I	X	X	X	X	X	306

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.B.24. Explain why the sun or the moon appears to be so much larger or orange colored when they are very low on the horizon				I	X	X			307
III.B.25. Describe the forms of radiation on the electromagnetic spectrum				I	X	X	X	X	308
III.B.26. Describe the characteristics of the 4 physical states of matter: plasma, gas, liquid, solid					I	X	X	X	309
III.B.27. Explain the link between temperature and molecular movement					I	X	X	X	310
III.B.28. Demonstrate that any change in motion is caused by unbalanced forces				I	X	X	X	X	311
III.B.29. infer that gravitational pull Give s an object its weight				I	X	X	X	X	312
III.B.30. Explain the force of friction				I	X	X	X	X	313
III.B.31. Explain that gravity and friction will eventually cause an object in motion to stop				I	X	X	X	X	314
III.B.32. Explain that the property of inertia makes objects remain at rest or continue in motion					I	X	X	X	315
III.B.33. Offer a simple explanation of the flow of an electrical current through a conducting material					I	X	X	X	316
III.B.34. Construct a simple electromagnet, and Demonstrate that the number of coils of wire determines its magnetic attraction				I	X	X	X	X	317
III.B.35. Demonstrate the transformation of energy from one form to another				I	X	X	X	X	318
III.B.36. Demonstrate that every motion creates a force equal and opposite to it					I	X	X	X	319

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.C. Technology	X	X	X	X	X	X	X	X	320
III.C.1.A study of simple machines	X	X	X	X	X	X	X	X	321
III.C.1.a. Demonstrate the basic principles of the lever						I	X		322
III.C.1.b. Demonstrate the basic principles of the inclined plane						I	X		323
III.C.1.c. Demonstrate the basic principles of the wheel and axle						I	X		324
III.C.1.d. Demonstrate the basic principles of the pulley						I	X		325
III.C.1.e. Demonstrate the basic principles of the wedge						I	X		326
III.C.1.f. Demonstrate the basic principles of the screw						I	X		327
III.C.2. A study of simple technology	X	X	X	X	X	X	X	X	328
III.C.2.a. Try to start a fire with flint and steel						I	X		329
III.C.2.b. Construct an Eskimo fire bow drill and use it to try to start a fire						I	X		330
III.C.2.c. Construct a Chinese balance and use it to weigh objects						I	X		331
III.C.2.d. Construct a model water wheel						I	X		332



# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.C.2.e. Construct a model wind mill						I	X		333
III.C.2.f. Construct detailed & accurate models of four types of simple technology housing: an igloo, a grass hut, a log home, a stone hut, and a simple wood frame house						I	X		334
III.C.2.g. Make primitive cutting implements from stone and/or bone						I	X		335
III.C.2.h. Make a brick mold and use it to make little fired bricks for building models						I	X		336
III.C.2.i. Make pots and vessels from clay and fire them in a pit kiln			I	X	X	X	X		337
III.C.2.j. Construct a Roman arch accurately						I	X		338
III.C.2.k. Explain and illustrate the history of mankind's use of animal power						I	X		339
III.C.2.l. Explain how a steam engine works, and Describe the history of its implementation over the last 200 years						I	X		340
III.C.3. A brief study of modern technology	X	X	X	X	X	X	X	X	341
III.C.3.a. The gasoline engine	X	X	X	X	X	X	X	X	342
III.C.3.a1. Offer a brief history of the development of the automobile							I	X	343
III.C.3.a2. Explain how the modern gasoline motor works							I	X	344
III.C.3.a3. Explain how the Diesel motor works							I	X	345

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.C.3.a4. Explain how the gas turbine engine works							I	X	346
III.C.3.b. The electric motor	X	X	X	X	X	X	X	X	347
III.C.3.b1. How power is generated	X	X	X	X	X	X	X	X	348
III.C.3. b1.1. Explain how electricity is generated from coal and oil							I	X	349
III.C.3. b1.2. Explain how hydroelectric power is generated							I	X	350
III.C.3. b1.3. Explain how nuclear power plants generate electricity, and Discuss the controversies surrounding this method							I	X	351
III.C.3.b2. Explain how electrical power is transmitted from the power plant to homes							I	X	352
III.C.3.b3. Explain how batteries are used to store power							I	X	353
III.C.3.b4. Construct a simple working electric motor							I	X	354
III.C.3.b5. Identify the uses of the electric motor around the house							I	X	355
III.C.3.b6. Describe the development of electric automobiles							I	X	356
III.C.3.c. The electric light bulb	X	X	X	X	X	X	X	X	357
III.C.3.c1. Summarize the history of lighting before the discovery of electric light				I	X	X	X	X	358

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.C.3.c2. Summarize the history of the discovery of the electric light, and its impact on society				I	X	X	X	X	359
III.C.3.c3. Explain the principles behind the electric light					I	X	X	X	360
III.C.3.c. Radio and Television	X	X	X	X	X	X	X	X	361
III.C.3.d1. Explain the principles behind radio and television					I	X	X	X	362
III.C.3.d2. Briefly describe the story of the development of radio and television					I	X	X	X	363
III.C.3.d3. Briefly describe the operation of a radio or TV studio					I	X	X	X	364
III.C.3.e. The computer and the microchip	X	X	X	X	X	X	X	X	365
III.C.3.e1. Explain the principles behind the microchip and the computer						I	X	X	366
III.C.3.e2. Describe the history of the development of the computer					I	X	X	X	367
III.C.3.e3. Describe the applications to which the computer is being put in everyday life					I	X	X	X	368
III.C.3.f. The airplane	X	X	X	X	X	X	X	X	369
III.C.3.f1. Explain the basic principles of flight						I	X	X	370
III.C.3.f2. Describe the history of the development of the modern airplane				I	X	X	X	X	371

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.C.3.g. Describe the principles behind the laser and how they are being used in today's technology						I	X	X	372
III.C.3.f. Describe the principles behind the microwave oven						I	X	X	373
III.D. ASTRONOMY	X	X	X	X	X	X	X	X	374
III.D.1. Retell the major creation myths and legends from around the world			I	X	X	X			375
III.D.2. Explain in simple terms the "Big Bang" theory of cosmic creation			I	X	X	X	X	X	376
III.D.3. Explain in simple terms the role of gravity in the formation of the protogalactic nebula and the formation of the first stars			I	X	X	X	X	X	377
III.D.4. The stars	X	X	X	X	X	X	X	X	378
III.D.4.a. Explain how scientists believe stars are formed			I	X	X	X	X	X	379
III.D.4.b. Explain in simple terms the fundamentals of stellar nucleosynthesis			I	X	X	X	X	X	380
III.D.4.c. Explain in simple terms what scientists know about the life cycle of stars			I	X	X	X	X	X	381
III.D.4.d. Explain that the apparent brightness of stars is related to their size, distance, and temperature			I	X	X	X	X	X	382
III.D.4.e. Explain that the apparent movement of the stars in the night sky is related to the rotation of the Earth on its axis				I	X	X	X	X	383
III.D.4.f. Retell the myths and legends connected to the familiar constellations			I	X	X	X	X	X	384

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.D.4.g. Identify familiar constellations in the night sky			I	X	X	X	X	X	385
III.D.4.h. Briefly explain in simple terms the concept of the speed of light and that scientists predict that no objects can go faster than it						I	X	X	386
III.D.4.i. Explain the concept of a light year						I	X	X	387
III.D.4.j. Calculate the distance from the earth of a cosmic object located X-lights years away							I	X	388
III.D.4.k. Explain the currently held scientific theory about black holes						I	X	X	389
III.D.4.l. Explain how astronomical tools, such as optical telescopes, radio telescopes, and spectrographs, are used to extend the human senses						I	X	X	390
III.D.4.m. Explain why a radio or optical telescope located in outer space would be more useful to scientists than an earth bound observatory							I	X	391
III.D.4.n. Briefly explain how a star's spectrum is used by astronomers to determine its chemical composition							I	X	392
III.D.4.o. Explain what a galaxy is in relation to a single star system like ours						I	X	X	393
III.D.5. Identify the planets and Give basic facts about their size, distance from the sun, planetary days and years, moons, and environments as we know them today		I	X	X	X	X	X	X	394
III.D.6. Earth-Sun relationships	X	X	X	X	X	X	X	X	395
III.D.6.a. Explain the Earth's rotation on its axis and its relationship to day/night			I	X	X	X	X	X	396
III.D.6.b. Explain the Earth/Sun relationships that cause our seasons			I	X	X	X	X	X	397

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.D.6.c. Explain in simple terms why the days get longer and shorter with the seasons			I	X	X	X	X	X	398
III.D.6.d. Distinguish between solstices and equinoxes				I	X	X	X	X	399
III.D.6.e. Distinguish between perihelions and aphelions				I	X	X	X	X	400
III.D. 7. Earth-Moon relationships	X	X	X	X	X	X	X	X	401
III.D.7.a. Explain the Earth/Moon relationships that results in tides on the Earth					I	X	X	X	402
III.D.7.b. Explain that graphs of tide tables data show the cyclical nature of tides						I	X	X	403
III.D.7.c. Explain the cause of solar and lunar eclipses				I	X	X	X	X	404
III.D.8. Summarize what scientists know about meteorites and comets				I	X	X	X	X	405
III.D.9. Give a fairly detailed report on the history of mankind's space program to date, and Demonstrate familiarity with some of the steps that scientists expect to develop in the next 20 years						I	X	X	406
III.E. Earth Science	X	X	X	X	X	X	X	X	407
III.E.1. The land and its formation	X	X	X	X	X	X	X	X	408
III.E.1.a. Surface features resulting from internal forces of the Earth	X	X	X	X	X	X	X	X	409
III.E.1.a1. Describe the interior makeup of the Earth			I	X	X	X			410

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.E.1.a2. Explain the causes and characteristics of volcanoes and how they have affected the surface features of the Earth			I	X	X	X			411
III.E.1.a3. Explain how the age of intense volcanic activity released the gases that eventually made up our atmosphere and eventually our oceans			I	X	X	X			412
III.E.1.a4. Explain tectonic plates and the theory of continental drift				I	X	X			413
III.E.1.a5. Explain the cause of earth quakes, and how they have affected the surface of the earth				I	X	X			414
III.E.1.b. Identify surface features resulting from the forces of nature	X	X	X	X	X	X	X	X	415
III.E.1.b1. Demonstrate that weathering and erosion continually break down and build up the land				I	X	X			416
III.E.1.b2. Identify erosional and depositional features of running water				I	X	X			417
III.E.2. Mineralogy	X	X	X	X	X	X	X	X	418
III.E.2.a. Describe the composition and formation of rocks				I	X	X			419
III.E.2.b. Explain the difference between igneous, metamorphic, and sedimentary rocks				I	X	X			420
III.E.2.c. Classify rocks as either igneous, metamorphic, or sedimentary				I	X	X			421
III.E.2.d. Explain how the correlation of index fossils and rock layers is used to Identify the age of a Give n rock formation					I	X			422
III.E.2.e. Identify minerals by their properties					I	X			423

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.E.3. Weather	X	X	X	X	X	X	X	X	424
III.E.3.a. Illustrate that water moves through the atmosphere and hydrosphere in cycles			I	X	X	X			425
III.E.3.b. Explain that temperature differences influence the movement of air in the atmosphere			I	X	X	X			426
III.E.3.c. Identify Give n types of clouds, and use them to predict the short-range weather			I	X	X	X			427
III.E.3.d. Relate types of clouds to stability of air masses				I	X	X			428
III.E.3.e. Explain the causes of ocean currents, and their effects upon local climate				I	X	X			429
III.E.3.f. Interpret symbols from a weather map				I	X	X			430
III.F. Basic skills of science	X	X	X	X	X	X	X	X	431
III.F.1. Using measuring devices	X	X	X	X	X	X	X	X	432
III.F.1.a. Demonstrate that objects can be balanced on a simple scale	I	X							433
III.F.1.b. Measure an object's weight on a simple balance in non-standard units (e.g.: pennies or paper-clips)	I	X							434
III.F.1.c. Use a spring scale to weigh objects			I	X					435
III.F.1.d. Weigh objects with a beam balance scale						I	X	X	436



# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
III.F.1.e. Measure temperature accurately with a thermometer				I	X				437
III.F.2. Observation: Gathering and analyzing data	X	X	X	X	X	X	X	X	438
III.F.2.a. group and classify objects according to one physical property: (e.g. size, shape)	I	X							439
III.F.2.b. group and classify objects according to more than one physical characteristic	I	X	X						440
III.F.2.c. Use a hand magnifier to investigate objects at a larger apparent scale	I	X							441
III.F.2.d. Demonstrate emerging skill in scientific observation by accurately describing the physical properties of objects	I	X	X						442
III.F.2.e. Demonstrate at least two techniques for gathering samples of data					I	X	X	X	443
III.F.2.f. Classify the origin of objects as either plant, animal, or mineral					I	X			444
III.F.2.g. Recognize the right of individuals to have differing points of view					I	X	X	X	445
III.F.2.h. Illustrate that objects can be represented as larger or smaller than life-size through the use of scale measurement					I	X	X	X	446
III.F.3. Scientific Experiments	X	X	X	X	X	X	X	X	447
III.F.3.a. Describe the process and results of a science experiment			I	X	X	X	X	X	448
III.F.3.b. Record data about scientific phenomena in a prepared table or chart				I	X	X	X	X	449



# Science Scope and Sequence

**Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:**

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
IV.A.1. Recognize that food is essential for life, growth, and the maintenance of good health	I	X	X						463
IV.A.2. Recognize that food contains nutrients necessary for life, growth, and good health		I	X	X	X	X			464
IV.A.3. Recognize that food comes from many sources	I	X	X						465
IV.A.4. Recognize that we wash our hands before eating or handling food to avoid the spread of germs	I	X							466
IV.A.5. Recognize that most foods must be thoroughly cooked to kill any micro-organisms	I	X	X	X	X	X			467
IV.A.6. Demonstrate good personal hygiene habits	I	X	X	X	X	X			468
IV.A.7. Classify food into food groups		I	X	X	X	X			469
IV.A.8. Identify the components of a well balanced and nutritious diet		I	X	X	X	X			470
IV.A.9. Relate food processing, handling, and preparation methods to nutritional value				I	X	X			471
IV.A.10. Explain why cleanliness is important in storing, preparing and eating foods				I	X	X			472
IV.A.11. Relate social and geographic variables to diet				I	X	X			473
IV.A.12. Describe the positive and negative effects of food on the human body				I	X	X			474
IV.A.13. Analyze food to determine the nutrient content					I	X			475



# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
IV.B.5. Recognize the importance of brushing teeth after eating	I	X	X	X	X	X	X	X	489
IV.B.6. Recognize and Explain the importance of regular bathing and hair washing	I	X	X	X	X	X	X	X	490
IV.B.7. Demonstrate good health habits	I	X	X	X	X	X	X	X	491
IV.B.8. Identify the symptoms of common illnesses	I	X	X	X	X	X	X		492
IV.B.9. Recognize that many diseases can be prevented or controlled		I	X	X	X	X	X		493
IV.B.10. Recognize that germs cause many diseases		I	X	X	X	X	X		494
IV.B.11. Identify some methods of preventing the spread of illness and disease		I	X	X	X	X	X		495
IV.B.12. Explain the functions of the doctor, nurse, and dentist	I	X	X	X	X	X	X		496
IV.B.13. Recognize how personal health habits can affect the health of everyone in our family or class		I	X	X	X	X	X		497
IV.B.14. Recognize the importance of regular medical and dental check-ups		I	X	X	X	X	X		498
IV.B.15. Classify diseases as organic, infectious, dietary, or allergic						I	X		499
IV.B.16. Describe the locations and functions of the human body's six natural defenses against disease						I	X		500
IV.B.17. Recognize that our life cycles are divided into significant stages		I	X	X	X	X	X	X	501

# Science Scope and Sequence

Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
IV.B.18. Identify the stages of human development		I	X	X	X	X	X	X	502
IV.B.19 Identify the basic human physical, social, and emotional needs		I	X	X	X	X	X	X	503
IV.B.20. Demonstrate the basic skills of nonviolent resolution of disagreements and hurt feelings		I	X	X	X	X	X	X	504
IV.B.21. Demonstrate the skill of giving others thanks and acknowledgment for acts of kindness	I	X	X	X	X	X	X	X	505
IV.B.22. Demonstrate a high degree of skills in friendship building and conflict resolution		I	X	X	X	X	X	X	506
IV.B.23. Demonstrate a spontaneous caring for others through day-to-day acts of kindness, assistance, and charity	I	X	X	X	X	X	X	X	507
IV. C. Reproduction	X	X	X	X	X	X	X	X	508
IV.C.1. Explain how living things reproduce					I	X	X		509
IV.C.2. Identify and Explain how the part of the human reproductive system work						I	X		510
IV.C.4. Identify the major changes that take place during adolescence and puberty						I	X		511
IV.C.5. Recognize that physical, social-emotional growth, and maturity are interrelated						I	X		512
IV.C.6. Briefly explain the menstrual cycle and the types of sanitary protection that are available						I	X		513
IV.C.7. Understands the process of fertilization, prenatal development, and birth					I	X	X		514

# Science Scope and Sequence

**Curriculum Element — Commonly, by the grade level(s) given below, the student will be able to:**

	N	K	1st	2nd	3rd	4th	5th	6th	Item #
IV.C.8. Demonstrate knowledge of information and attitudes surrounding reproduction, pregnancy, and birth						I	X		515
IV.C.9. Demonstrate an emotionally mature, non-sexist view and relationship to the opposite sex						I	X	X	516
IV.D. The Affects of Potentially Damaging Chemicals and Drugs	X	X	X	X	X	X	X	X	517
IV.D.1. Recognize potentially dangerous substances	I	X							518
IV.D.2. Explain why medicine must be used correctly according to the doctor's instructions		I	X						519
IV.D.3. Recognize products that contain alcohol, caffeine, or tobacco and consider why people use them		I	X	X				X	520
IV.D.4. Discuss the medical affect of smoking on long- term health			I	X				X	521
IV.D.5. Identify the physical, psychological, and social effects of alcohol use/abuse			I	X				X	522
IV.D.6. Explain why it is illegal for an adult to drive a car when he/she has been drinking alcohol			I	X				X	523
IV.D.7. Give examples of the way the media encourages the casual use of over-the-counter non-prescription drugs and the concern over its affect on our habits							I	X	524
IV.D.8. Recognize the influence of advertisements for alcoholic beverages on attitudes and behavior							I	X	525
IV.D.9. Identify some common plants that are poisonous			I	X				X	526
IV.D.10. Identify some of the common illegal drugs and Describe their effects on their users			I	X				X	527

