Appendix B—2010 PAAP Alternate Grade Level Expectations

Alternate Grade Level Expectations

for

Maine's Personalized Alternate Assessment Portfolio

Based on Maine's Accountability Standards, Chapter 131

Reading, Writing, and Mathematics
New England Common Assessment Program (NECAP) Grade Level Expectations

Science
Maine's 2007 Learning Results

TABLE OF CONTENTS — 2009–10 PAAP AGLEs

For 2009–10 assessment, choose only from those AGLEs/Indicators that are shaded light gray.

Mathematics AGLE A — Numbers and Operations

(Grades 2–7, 2nd & 3rd Year HS: Choose one from each of three of the four AGLE groups–A, B, C, D.)

Mathematics AGLE B — Geometry and Measurement

Mathematics AGLE C — Functions and Algebra

For 2009–10 assessment, choose only from those AGLEs/Indicators that are shaded light gray.

Mathematics AGLE D — Data, Statistics, and Probability

Science AGLE D — The Physical Setting

(Grades 5 and 8, 3rd Year HS: Choose three from AGLE groups D and E. No more than two of the choices can come from a single group.)

Science AGLE E — The Living Environment

For 2009–10 assessment, choose only from those AGLEs/Indicators that are shaded light gray.

****For 2009–10 assessment, the dark gray shaded AGLEs/Indicators may not contain tasks for all 8 LoCs. Check the Task Bank.***

A Guide to the Alternate Grade Level Expectations (AGLEs) for Maine's Personalized Alternate Assessment Portfolio (PAAP)

Maine's state-level assessments – the New England Common Assessment Program (NECAP), the Maine Educational Assessment (MEA), the PSAT, and the Maine High School Assessment (MHSA, comprises the SAT and Science) – allow student participation through any of three avenues:

- Standard Administration, for those who can take the test as it is traditionally presented;
- Administration with Accommodations, for students who need changes in the way the test is presented, or the means by which their responses are communicated, to be on an equal footing with their peers who use standard administration. Such accommodations do not change what is being measured;
- Alternate Assessment, for those students who have significant or profound disabilities that prevent them from showing what they know or can do through the general assessment formats, even with accommodations.

If it appears that a student's successful participation may require alternate assessment, a team must be convened to determine the avenue(s) that is appropriate for the student. In the case of students with an identified disability, the decision-making panel must be the same group responsible for determining the student's Individual Education Program (the IEP Team).

Lists of approved accommodations for each of the assessments may be found in documents on the Maine Department of Education Web site. These accommodations may also be used for students who are participating in testing through the Personalized Alternate Assessment Portfolio (PAAP). The PAAP is intended for those students with an IEP who need a modified measure of performance – that is to say, students whose exceptionality is so significant that it does not allow access to the standard assessment, even with a combination of accommodations. The PAAP, like other Maine State Assessments, provides a snapshot in time of the individual student's performance. A broader picture will emerge as the student results on the PAAP are viewed in conjunction with results on other assessments in and beyond the classroom. The results of the alternate assessment will serve as the basis for reporting under the *No Child Left Behind Act* for the student participants.

The student work included in a PAAP is based on Maine's Alternate Grade Level Expectations (AGLEs) contained in this document, which are designed for planning and implementing the Maine's alternate assessment and are developmentally backed down to a level considered appropriate for inclusion in the student's instructional program.

Furthermore, the PAAP is a portfolio assessment, measuring progress towards the defined AGLEs by allowing students to produce evidence of their growth over the course of a school year. PAAP assesses students at the same grade levels in the same content areas as the other Maine State Assessments (see chart on page 7). The administration window for the PAAP runs for much of the academic year – from the first week of December through the last week of April. This extended administration window provides opportunities for instruction to be embedded in the student's daily work throughout the school year, then assessed using PAAP tasks.

Levels of Complexity (LoC)

Maine's Alternate Grade Level Expectations (AGLEs) for the 2009–2010 PAAP are written on a continuum of eight Levels of Complexity (LoC). The AGLEs were developed by "backing down" the academic content standards (see Maine's Accountability Standards, Chapter 131) from high school through elementary

school. This approach ensured linkage to the content standards across grades K–12. The LoCs for Reading, Writing, and Mathematics are linked to the NECAP *Grade-Level Expectations* (GLEs) and the LoCs for Science are linked to Maine's 2007 *Learning Results*.

Maine's AGLEs provide a common basis for the planning and assessment of standards-based instruction and assessment in a system that allows students to work on the AGLEs/Indicators, LoC Descriptors, and tasks best suited to their individual needs. Each LoC is designated as appropriate for specified student grade levels. All tasks submitted in a student's PAAP must be selected and downloaded from the PAAP Task Bank (www.mecas.org/paap/taskbank); in order to establish consistency, teachers may not develop their own tasks.

All Tasks within the Task Bank are aligned with Maine's AGLEs/Indicators LoCs 1–8. Students working above the grade-appropriate LoC should participate in the standard Maine State Assessment for their grade-level placement with appropriate accommodations.

Format of the AGLEs for the PAAP

Maine's AGLEs are formatted by Content Area (Reading, Writing, Mathematics, and Science), AGLE/Indicator, and LoC Descriptors. There are three Content Area sections, each one color-coded:

1. Reading & Writing (yellow);
2. Mathematics (blue); and
3. Science (green).

AGLEs/Indicators for which tasks are *not* available for assessment in 2009–10 are watermarked with "2009–10 Instruction Only"; these AGLE/Indicators are provided for instructional purposes and future planning. It is our intent to provide tasks for all AGLEs available in the future.

For an example of the format of the PAAP AGLEs, please reference page 24 of the 2009–2010 PAAP AGLEs – the first of the Mathematics AGLEs.

The header at the top of the page identifies this AGLE as **NECAP GLE M (N&O) – 1**, the NECAP Grade Level Expectation (GLE) to which this material is aligned (GLE *M* refers to *Mathematics*, while *N&O* identifies the focus of the standard, *Numbers and Operations*). Directly opposite this, on the right side of the field, the corresponding PAAP identifier is situated: **Mathematics AGLE/Indicator – A1**.

The *student expectations* for each AGLE – that is to say, what is being expected of the student in order to demonstrate proficiency as defined in NECAP's GLEs (for Reading, Writing, and Mathematics) are presented in italics *below* the NECAP GLE. On page 24, for example, the expectations of the student are that he or she *…demonstrates conceptual understanding of rational numbers by:*

Exactly *how* the student demonstrates conceptual understandings of rational numbers is detailed in the LoC descriptor table immediately following the student expectations. Staying with page 24, for instance, the *Student demonstrates conceptual understanding of rational numbers by:*

- [**Level of Complexity 1**:] indicating or labeling a collection of up to 3 items;
- [**Level of Complexity 2**:] indicating or labeling a collection of up to 10 items;
- [**Level of Complexity 3**:] doing one or more of the following: reading, writing, and counting numbers up to 99, and/or recognizing the place value (tens and ones) of numbers.

…and so on, up to and including LoC 8.

At the top of each Level of Complexity field, the appropriate grade levels for participation using that specific LoC descriptor are identified.

The layout of the PAAP AGLEs for Science is for the most part the same as other content areas; however, Science AGLEs/ Indicators are aligned to reflect the format and design of Maine's 2007 *Learning Results* under Maine's Accountability Standards, Chapter 131. At the top of each page, the reader will find a header with Maine's Accountability Standards, Chapter 131, AGLE/Indicator, and title of each AGLE. The student expectations for that AGLE are written in italics below the AGLE.

Formatting the Levels of Complexity descriptors for Science is the same as it is for Reading, Writing, and Mathematics:

- LoCs are ranged 1 through 8, and
- each LoC is accompanied by information identifying the grade levels for which participation at that LoC is appropriate.

Since *all* students must be involved in general curriculum, teachers are encouraged to plan instruction aligned to the PAAP LoC descriptor for each AGLE/Indicator selected as appropriate for inclusion in a student's instructional program (i.e., IEP). Assessment of the student's related knowledge and/or skills using downloaded PAAP tasks aligned to that LoC descriptor should be used following delivery of the planned instruction. The completed tasks, along with the required forms, will make up the student work that serves as the contents of the PAAP.

Maine's Alternate Grade Level Expectations for the PAAP can be found online at http://www.maine.gov./education/lsalt/paap/agles.html.

Content Area	Grade(s) Assessed	Number of AGLE/Indicators Required	PAAP AGLE/Indicators from which to Select Entries
Reading	2–7, and 2nd and 3rd year high school	2	A1, A2, A3
Mathematics	2–7, and 2nd and 3rd year high school	3	A1, A5, B3, C1, D1,
Writing	4, 7, and 3rd year high school	1	B2, B3,
Science	5, 8, and 3rd year high school	3	D1, D2, D3, D4, E1, E2, E3, E4, E5

Definitions and/or Acronyms

Alternate Grade Level Expectations (AGLEs) – Maine's Personalized Alternate Assessment Portfolio Alternate Grade Level Expectations in Reading, Writing, Mathematics, and Science are designed to encourage the highest achievement of every student by defining the knowledge, concepts, and skills that students should acquire at each LoC. AGLEs are developmentally backed down to ensure access to curriculum and instruction for students with severe cognitive disabilities. Within the content area sections of the AGLE document, each AGLE is assigned a letter for organizational purposes (e.g., Reading Standard A).

Grade Level Expectations (GLEs) – What all students should know and be able to do at the end of a given grade level.

Indicator – For Maine's Personalized Alternate Assessment Portfolio, an Indicator is the number assigned within a AGLE (e.g., A1) for organizational purposes.

Levels of Complexity (LoC) – Continuum of complexity descriptors, of which there are eight within each standard.

Maine's Accountability Standards, Chapter 131 – Identifies the knowledge and skills essential to prepare Maine students for work, for higher education, for citizenship, and for personal fulfillment. This document defines only the core elements of education that should apply to all students without regard to their specific career and academic plans.

Maine Educational Assessment (MEA) – Science assessment required of students in grades 5 and 8.

Maine High School Assessment (MHSA) – Assessment required of students in their third year of high school.

New England Common Assessment Program (NECAP) – Assessment program required for students in grades 2 through 7.

Personalized Alternate Assessment Portfolio (PAAP) – Maine's Alternate Assessment Program for students with significant cognitive disabilities who cannot participate in the general assessment in Maine even with accommodations.

Maine's 2007 Learning Results – The Maine Department of Education Regulation 132 - Learning Results: Parameters for Essential Instruction describes the progression of learning and establishes parameters for essential teaching and learning in grades Pre-Kindergarten through Diploma across eight content areas.

Reading Alternate Grade Level Expectations

NECAP GLEs R1, R2, & R3 — Reading AGLE/Indicator — A1

Word Identification and Vocabulary Knowledge

Student applies word identification and decoding strategies, identifies the meaning of unfamiliar vocabulary, shows breadth of vocabulary knowledge, and/or demonstrates understanding of word meaning or relationships by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• identifying signs, symbols, gestures, objects, and/or pictures to show understanding of words.	• showing phonemic awareness and/or sound/symbol relationships.	**doing one or more of the following:** • using basic phonemic awareness skills (e.g., identifying beginning and/or ending sounds or rhyming words) and/or • using word parts or basic phonics to decode words (e.g., CVC words), and/or • decoding sight words of the highest frequency in the English language (e.g., the, and,is) **AND** • using context clues to determine the meaning of words.	**doing one or more of the following:** • using the full range of phonemic awareness skills (e.g., identifying medial sounds, orally segmenting sounds or parts in words), and/or • using word parts or phonics to decode words (e.g., CCVC, CVCC, CCVCC word patterns, common long vowels patterns, inlectional endings), • decoding common English sight words (e.g., all, eat, good, out, that, with, yes) **AND** • using context clues to determine the meaning of words.

NECAP GLEs R1, R2, & R3 — Reading AGLE/Indicator — A1

Word Identification and Vocabulary Knowledge

Student applies word identification and decoding strategies, identifies the meaning of unfamiliar vocabulary, shows breadth of vocabulary knowledge, and/or demonstrates understanding of word meaning or relationships by:

Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
doing one or more of the following: • using phonemic awareness and/or • using word parts or phonics to decode words, **AND** **doing one or more of the following:** • using context clues to determine the meaning of words and/or • identifying unfamiliar vocabulary by using suffixes or base words, **AND** **doing one or more of the following:** • identifying synonyms, • identifying antonyms, and/or • categorizing words.	**doing one or more of the following:** • applying word identification/ decoding strategies and/or • using knowledge of sounds, syllable types, or word patterns such as prefixes or suffixes to decode words, **AND** **doing one or more of the following:** • identifying unfamiliar vocabulary by using affixes or base words, • using context clues to determine meaning, and/or • using a dictionary or glossary to determine the meaning of words, **AND** **doing one or more of the following:** • identifying synonyms, • identifying antonyms, • categorizing words, • selecting words to use in content-specific context, and/or • determining the meaning of a multiple-meaning word that is appropriate for the text.	**doing two or more of the following:** • identifying the meaning of unfamiliar vocabulary by using knowledge of word structure, • using context clues to determine meaning, and/or • using a dictionary or glossary to determine the meaning of words, **AND** **doing two or more of the following:** • identifying synonyms, • identifying antonyms, • selecting words to use in content-specific context, • determining the meaning of a multiple-meaning word that is appropriate for the text, and/or • distinguishing shades of meaning.	**doing two or more of the following:** • identifying the meaning of unfamiliar vocabulary by using knowledge of word structure, • using context clues to determine meaning, and/or • using a dictionary, glossary, or thesaurus to determine definitions or usage of words, **AND** **doing two or more of the following:** • identifying synonyms, • identifying antonyms, • distinguishing shades of meaning, and/or • selecting or explaining the use of words in context.

NECAP GLEs R4, R5, & R6 — Reading AGLE/Indicator— A2

Literary Text

Student demonstrates initial understanding, analysis, and interpretation of elements of literary text, citing evidence where appropriate, by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• identifying pictures of named events from among a group of two or more pictures depicting varied events.	• putting key events from a simple story listened to or viewed in correct sequence.	**doing one or more of the following:** • identifying settings or characters and/or • retelling events in a story using words and pictures, **AND** • answering questions about information from the text.	**doing one or more of the following:** • identifying settings or characters and/or • retelling a story using relevant details and putting events in proper sequence, **AND** • answering questions about information from the text.

NECAP GLEs R4, R5, & R6 — Reading AGLE/Indicator — A2

Literary Text

Student demonstrates initial understanding, analysis, and interpretation of elements of literary text, citing evidence where appropriate, by:

Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
doing one or more of the following: • identifying or describing characters or setting, and/or • identifying or describing problem, solution, or events, **AND** **doing one or more of the following:** • making logical predictions, • identifying characteristics or personality traits of main characters, and/or • making basic inferences. *Text must be read by the student.*	**doing two or more of the following:** • identifying or describing characters or setting, • identifying or describing problem, solution, events, or plot, and/or • paraphrasing or summarizing, **AND** **doing one or more of the following:** • making logical predictions, • describing main characters' characteristics or personality traits, • providing examples from text that reveal characters' personality traits, • making basic inferences, and/or • identifying author's basic message. *Text must be read by the student.*	**doing two or more of the following:** • identifying or describing characters, setting, problem/ solution, events, or plot, • identifying changes in characters over time, and/or • paraphrasing or summarizing, **AND** **doing two or more of the following:** • making logical predictions, • describing characters' characteristics or personality traits, • providing examples from text that reveal characters' personality traits, • making inferences, • identifying who is telling the story, and/or • identifying author's message or theme. *Text must be read by the student.*	**doing two or more of the following:** • identifying or describing characters, setting, problem/ solution, events or plot, • identifying changes in characters over time, and/or • paraphrasing/summarizing, **AND** **doing two or more of the following:** • making logical predictions, • describing characters' characteristics, personality traits, or interactions, • providing examples from text that reveal characters' personality traits, • describing changes in characters over time, • making inferences, • identifying the narrator, • identifying or describing the author's message or theme, and/or • demonstrating knowledge of literary elements and devices (imagery, exaggeration). *Text must be read by the student.*

NECAP GLEs R7 & R8 — Reading AGLE/Indicator — A3
Informational Text

Student demonstrates initial understanding, analysis, and interpretation of elements of informational text, citing evidence as appropriate, by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
doing one or more of the following: • distinguishing front of a book from the back, • distinguishing top of a book from the bottom, and/or • using signs, symbols, pictures, words, or actions to communicate needs or wants.	**doing one or more of the following:** • differentiating between print and pictures, • indicating the title on the cover or title page, • indicating where one begins to read on a page, • indicating where to find the author's name, • using explicitly stated information from the text to answer questions, and/or • recognizing a central idea from text when presented with three pictures.	**doing one or more of the following:** • obtaining information from a title page (title, author), • distinguishing between the beginning and end of a book, • differentiating between print and pictures, • using explicitly stated information from the text to answer questions, and/or • recognizing main/central idea when presented with pictures and sentences.	**doing one or more of the following:** • obtaining information from a simple table of contents, • obtaining information from a simple glossary, • obtaining information from illustrations, and/or • using explicitly stated information from the text to answer questions, **AND** **doing one or more of the following:** • making basic inferences and/or • drawing basic conclusions when given possible choices.

Student demonstrates initial understanding, analysis, and interpretation of elements of informational text, citing evidence as appropriate, by:

Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
doing two or more of the following: • obtaining information from simple table of contents or glossary, • obtaining information from simple charts, graphs, diagrams, or illustrations, and/or • using explicitly stated information to answer questions, **AND** **doing one or more of the following:** • connecting information within a text, • recognizing generalizations, • making basic inferences or drawing basic conclusions, and/or • inferring cause or effect when signal words are present.	**doing two or more of the following:** • obtaining information from table of contents, glossary, transition words, bold or italicized text, or headings, • obtaining information from graphic organizers, charts, graphs, or illustrations, and/or • answering questions related to explicitly stated information, **AND** **doing two or more of the following:** • connecting information within a text, • recognizing generalizations about a text, • making inferences, including cause/effect, • drawing basic conclusions, • forming judgments or opinions, and/or • distinguishing fact from opinion.	**doing two or more of the following:** • obtaining information from table of contents, glossary, index, transition words or phrases, bold or italicized text, headings, subheadings, graphic organizers, charts, graphs, or illustrations, • answering questions related to explicitly stated information, and/or • paraphrasing or summarizing, **AND** **doing two or more of the following:** • connecting information within or across texts, • synthesizing information from one or more texts, • making inferences including cause/effect, • determining author's purpose, • drawing basic conclusions, • forming judgments/opinions, and/or • distinguishing fact from opinion.	**doing two or more of the following:** • obtaining information from table of contents, glossary, index, transition words or phrases, bold or italicized text, headings, subheadings, graphic organizers, charts, graphs, or illustrations, • using information from the text to answer questions, and/or • summarizing or comparing/ contrasting, **AND** **doing two or more of the following:** • connecting information within or across texts, • synthesizing information from one or more texts, • drawing conclusions about text, • determining author's purpose, • forming and supporting opinions/ judgments and assertions, and/or • distinguishing fact from opinion, • making inferences about causes and effects.

Writing Alternate Grade Level Expectations

Developmental Characteristics of Writing

Grades K–2 Developmental Characteristics	Grades 3–5 Developmental Characteristics
✓ aware that speech can be written down ☐ English organized from left to right ☐ print language is close match to oral language child uses ☐ uses invented spelling by writing the sounds heard in words, and often picks letters having those sounds in their names ☐ attempts use of punctuation and capitalization ☐ written thoughts may be random ☐ combination of letters and words (semi-phonetic spellings with some sounds represented by letters) used as experiments in writing ☐ has a sense of sentence ☐ uses basic sentence structures ☐ composition conveys basic ideas ☐ uses logical sequence (beginning, middle, and end) ☐ attempts use of punctuation and capitalization mechanics ☐ uses some variety of complete sentence structures	✓ develops a central idea or topic ☐ begins to develop and later maintains a consistent focus ☐ includes beginning, middle, and end ✓ begins to organize writing by paragraph ☐ relates multiple sentences to single topic ☐ uses varied text forms to suit purpose ☐ matches writing to purpose and audience ☐ provides descriptive details ☐ selects a topic for composition ☐ establishes an organizing structure ☐ composes coherent paragraphs with supporting details and a concluding sentence ☐ conveys voice ☐ edits for correct grammar, usage, and mechanics

Grades 6–8 and 11 Developmental Characteristics
✓ selects and refines a topic for composition ☐ establishes an organizing structure that is appropriate for the purpose ☐ maintains a consistent focus, point of view, or thesis ☐ uses specific details and references to support the focus, point of view, or thesis ☐ uses descriptive language to clarify, enhance, or develop ideas ☐ includes relevant information in a logical order ☐ uses varied sentence length and structure to enhance meaning ☐ uses a variety of elaboration strategies and transitional devices ☐ conveys voice appropriate to audience and purpose ☐ uses precise and specific language ☐ edits for correct grammar, usage, and mechanics ☐ uses resources to support editing

NECAP GLEs W1, W2, W3, & W9 — Writing AGLE/Indicator — B1

Writing Conventions and Structures of Language; Response to Text

Student demonstrates command of the structures of sentences, paragraphs, and text, and demonstrates command of appropriate conventions; student demonstrates understanding of plot/ideas/concepts, and makes and supports analytical judgments about literary and informational text by:

Level of Complexity 1 (Grades 4, 7, and 3rd Year HS)	**Level of Complexity 2** (Grades 4, 7, and 3rd Year HS)	**Level of Complexity 3** (Grades 4, 7, and 3rd Year HS)	**Level of Complexity 4** (Grades 4, 7, and 3rd Year HS)
• identifying given signs, symbols, and/or pictures that communicate a fact or thought (e.g., need, name of object, person).	• using signs, symbols, or pictures to communicate understanding of ideas and/or concepts **AND** • using phonemic awareness and letter-sound association to connect letters to sounds.	• showing understanding of text using pictures (pictures may include labels, which might only include beginning sounds and/or end sounds) **AND** **doing one or more of the following:** • using phonemic awareness and letter knowledge to represent initial or final consonant sounds and/or • using prior knowledge or references to text to respond to a question using pictures (pictures may include labels, which might only include beginning sounds and/or end sounds).	• writing recognizable phrases or short sentences to show understanding of text, including using phonemic awareness and letter knowledge to spell independently (phonetic and/or "invented" spelling acceptable) **AND** **doing one or more of the following:** • using prior knowledge or references to text to respond to a question (evidence may take the form of pictures, words, sentences, or some combination) and/or • using a beginning and an ending to organize ideas, given an organizing structure (e.g., graphic organizer, story map).

NECAP GLEs W1, W2, W3, & W9 — Writing AGLE/Indicator — B1

Writing Conventions and Structures of Language; Response to Text

Student demonstrates command of the structures of sentences, paragraphs, and text, and demonstrates command of appropriate conventions; student demonstrates understanding of plot/ideas/concepts, and makes and supports analytical judgments about literary and informational text by:

Level of Complexity 5 (Grade 7 and 3rd Year HS)	**Level of Complexity 6** (Grade 7 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
writing short sentences that incorporate one or more of the following: • using capital letters for names and/or at the beginning of sentences, • using correct end punctuation in simple sentences, • correctly spelling high frequency gr. 2 words, and/or • correctly spelling one-syllable words with these patterns: CVC, CVCe, CCVC, CVCC, **AND** **doing one or more of the following:** • selecting appropriate information to set context or background, • stating a focus (purpose) when responding to a given question, • using details or references to text to support a given focus (Note: support may include prior knowledge), and/or • using a beginning, middle, and concluding statement or sentence to organize ideas, given an organizing structure (e.g., graphic organizer, story map).	**doing one or more of the following:** • writing simple declarative, exclamatory, or interrogative sentences, • recognizing indentations for new paragraphs, • using capital letters at the beginning of names and sentences, • using periods, question marks, or exclamation points correctly in simple sentences, • correctly spelling high-frequency gr. 3 words, and/or • correctly spelling single syllable words with regular long and short vowels, **AND** **doing one or more of the following:** • selecting appropriate information to set context or background, • connecting what has been read (plot, ideas, or concepts) to prior knowledge, which might include other texts, • stating a focus (purpose) when responding to a given question, • making inferences about the content, events, characters, or setting, • using details or references to text to support focus (Note: support may include prior knowledge), and/or • organizing ideas, using basic transition words (e.g., first, next, then, finally), and having a concluding statement.	**doing two or more of the following:** • writing a variety of simple sentences, • writing a variety of compound sentences, • writing a paragraph with a main idea and two supporting details, • identifying grammatical errors when given examples, • applying basic capitalization rules, for the beginning of sentences and in proper nouns or titles, • using commas in dates and in a series, • using end punctuation correctly in a variety of sentence structures, • correctly spelling high-frequency words at gr. 4 level, and/or • recognizing or applying English spelling rules: consonant doubling, changing y to i, dropping silent e, **AND** **doing two or more of the following:** • selecting appropriate information to set context or background, • connecting what has been read (plot, ideas, or concepts) to prior knowledge, which might include other texts, • stating and maintaining a focus (purpose) when responding to a given question, • making inferences about content, events, characters, setting, or common themes, • using specific details and references to text to support focus, and/or • organizing ideas, using transition words or phrases, and writing a conclusion.	**doing two or more of the following:** • using a variety of sentence structures to enhance meaning, • adding phrases and clauses to sentences, • writing a paragraph with a main idea and three or more supporting details, • identifying or correcting grammatical errors, including subject-verb agreement, • applying basic capitalization rules, for the beginning of sentences, and in proper nouns or titles, • using commas, apostrophes, or quotation marks to clarify meaning, • correctly spelling high-frequency words at gr. 5 level, including homophones, and/or • recognizing or applying English spelling rules, **AND** **doing two or more of the following:** • selecting appropriate information to set context or background, • connecting what has been read (plot, ideas, or concepts) to prior knowledge or other texts, by referring to relevant ideas, • stating and maintaining a focus (purpose) when responding to a given question, • making inferences about content, events, characters, setting, or common themes, • using specific details and references to text or citations to support focus, and/or • organizing ideas, using transition words or phrases, and writing a conclusion that provides closure.

NECAP GLEs W4 & W5 — Writing AGLE/Indicator — B2

Narrative

Student organizes and relates a story line/plot/series of events and demonstrates use of narrative strategies by:

Level of Complexity 1 (Grades 4, 7, and 3rd Year HS)	**Level of Complexity 2** (Grades 4, 7, and 3rd Year HS)	**Level of Complexity 3** (Grades 4, 7, and 3rd Year HS)	**Level of Complexity 4** (Grades 4, 7, and 3rd Year HS)
• identifying pictures or symbols to relate an experience, event, or idea.	• composing responses related to an event, experience, or idea.	• using pictures to create an understandable story line with a beginning and end when given a structure (pictures may include labels) **AND** • using pictures to identify and/or create characters.	• creating an understandable story line with a beginning and end when given a structure (may take form of words or pictures or some combination) **AND** • creating character(s)—may take form of words or pictures or some combination.

NECAP GLEs W4 & W5 — Writing AGLE/Indicator — B2

Narrative

Student organizes and relates a story line/plot/series of events and demonstrates use of narrative strategies by:

Level of Complexity 5 (Grade 7 and 3rd Year HS)	**Level of Complexity 6** (Grade 7 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
See Instructional AGLEs	**See Instructional AGLEs**	**See Instructional AGLEs**	**See Instructional AGLEs**

NECAP GLEs W6, W7, & W8 — Writing AGLE/Indicator — B3

Expository and Informational Writing

Student conveys purpose and demonstrates ability to organize ideas or concepts and use a range of elaboration strategies in reports and informational writing by:

Level of Complexity 1 (Grades 4, 7, 3rd Year HS)	**Level of Complexity 2** (Grades 4, 7, and 3rd Year HS)	**Level of Complexity 3** (Grades 4, 7, and 3rd Year HS)	**Level of Complexity 4** (Grades 4, 7, and 3rd Year HS)
doing one or more of the following: • identifying signs, symbols, pictures, or words to convey simple needs related to specific tasks or procedures and/or • using pictures, signs, or symbols to communicate or identify information.	**doing one or more of the following:** • composing and sharing related responses to convey simple needs and/or • matching objects, people, places, or events to related information.	**doing one or more of the following:** • naming or labeling objects or pictures that have a common characteristic, • representing facts through pictures, and/or • using pictures to illustrate details or information related to topic (pictures may have labels).	**doing one or more of the following:** • sorting facts within a given category, • representing facts through pictures, words, sentences, or some combination, and/or • using pictures to create meaning, **AND** • including details or information relevant to topic (details or information may take the form of pictures with captions, words, sentences, or some combination).

NECAP GLEs W6, W7, & W8 — Writing AGLE/Indicator — B3
Expository and Informational Writing

Student conveys purpose and demonstrates ability to organize ideas or concepts and use a range of elaboration strategies in reports and informational writing by:

Level of Complexity 5 (Grade 7 and 3rd Year HS)	**Level of Complexity 6** (Grade 7 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
doing one or more of the following: • establishing a topic, • restating a given focus or controlling idea on a topic (purpose), • using a given organizational structure for grouping facts, and/or • selecting facts to set context or background, **AND** **doing one or more of the following:** • including details or information relevant to topic and/or focus, and/or • using sufficient details or pictures to illustrate facts.	**doing one or more of the following:** • establishing a topic, • stating a focus or controlling idea on a topic, • using a template to group facts and ideas, • selecting appropriate facts to set context or background, • using basic transition words when appropriate (e.g., first, then, next, finally), and/or • providing a concluding statement, **AND** **doing one or more of the following:** • including details or information relevant to topic and/or focus, and/or • including sufficient details for appropriate depth of information: naming, describing, explaining, comparing, use of visual images.	**See Instructional AGLEs**	**See Instructional AGLEs**

Mathematics Alternate Grade Level Expectations

NECAP GLE M(N&O) — 1 — Mathematics AGLE/Indicator — A1

Numbers and Operations – Whole Numbers

Student demonstrates conceptual understanding of rational numbers by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• indicating or labeling a collection of up to 3 items.	• indicating or labeling a collection of up to 10 items.	**doing one or more of the following:** • reading, writing, and counting numbers up to 99 and/or • recognizing the place value (tens and ones) of numbers.	**doing one or more of the following:** • reading, writing, and counting numbers up to 199, • recognizing the place value (ones, tens, and/or hundreds) of numbers, and/or • skip counting by 2s, 5s, and 10s (may use a hundreds chart).
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
See Instructional AGLEs	**See Instructional AGLEs**	**See Instructional AGLEs**	**See Instructional AGLEs**

NECAP GLE M(N&O) — 1 — Mathematics AGLE/Indicator — A2

Numbers and Operations – Fractions

Student demonstrates conceptual understanding of rational numbers by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• indicating that one-half is less than one whole.	• indicating that two halves make a whole.	• indicating that two halves, three thirds, and/or four fourths make a whole.	• indicating $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$.
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
• indicating and/or illustrating $\frac{1}{2}$, $\frac{1}{3}$, and/or $\frac{1}{4}$. **AND** • compare $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$	• indicating, comparing, and/or ordering rational numbers (limited to fractions with denominators of 2, 3, 4, and/or 5).	**See Instructional AGLEs**	**See Instructional AGLEs**

NECAP GLEs M(N&O) — 1 & 5 — Mathematics AGLE/Indicator — A3

Numbers and Operations – Decimals (Including Money) and Percents

Student demonstrates conceptual understanding of rational numbers and monetary value by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	Level of Complexity 2 (Grades 2–7, 2nd & 3rd Year HS)	Level of Complexity 3 (Grades 2–7, 2nd & 3rd Year HS)	Level of Complexity 4 (Grades 2–7, 2nd & 3rd Year HS)
• matching coins (penny, nickel, dime, or quarter) to coins of the same value.	• identifying coins (penny, nickel, dime, or quarter).	• identifying coins (penny, nickel, dime, and quarter) and giving the value of coins (a penny and a quarter).	• identifying coins (penny, nickel, dime, and quarter) and giving the value of these coins **AND** • distinguishing between decimal notations (e.g., 0.35) and other numbers (e.g., 35).
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
See Instructional AGLEs	**See Instructional AGLEs**	**See Instructional AGLEs**	**See Instructional AGLEs**

NECAP GLE M(N&O) — 2
Numbers and Operations – Magnitude of Numbers

Mathematics AGLE/Indicator — A4

Student demonstrates understanding of the relative magnitude of numbers by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• determining which group has more or less when given two groups of objects (real or pictured).	• determining which group has the most or the least when given three groups of objects (real or pictured).	• ordering and comparing whole numbers from 0–49.	• ordering and comparing whole numbers from 0–99.
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
• ordering and comparing whole numbers from 0–199.	• ordering and comparing whole numbers from 0–999.	**See Instructional AGLEs**	**See Instructional AGLEs**

NECAP GLEs M(N&O) — 3 & 4 — Mathematics AGLE/Indicator — A5

Numbers and Operations – Understanding of Mathematical Operations, Calculations,and Solving Problems

Student demonstrates conceptual understanding of mathematical operations and problem solving by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• matching a set of 2–4 objects with an equivalent set of 2–4 objects.	• adding and subtracting whole numbers (sums up to 6 and the corresponding subtraction counterparts) using manipulatives.	• adding and subtracting whole numbers (sums up to 10 and the corresponding subtraction counterparts) and showing or explaining strategies for such problems.	• adding and subtracting whole numbers (sums up to 20 and the corresponding subtraction counterparts) and showing or explaining strategies for such problems.
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
doing one or more of the following: • adding and subtracting whole numbers (sums up to 99 and the corresponding subtraction counterparts) and showing or explaining strategies for such problems, and/or • describing or illustrating the inverse relationship between addition and subtraction and/or the relationship between repeated addition and multiplication.	• adding and subtracting whole numbers (sums up to 199 and the corresponding subtraction counterparts) and showing or explaining strategies for such problems, **AND** **doing one or more of the following:** • multiplying (limited to one-digit numbers) and dividing (limited to one-digit divisors and two-digit dividends) whole numbers, and/or • describing or illustrating the inverse relationship between multiplication and division (without remainders) and/or the relationship between repeated subtraction and division.	**doing one or more of the following:** • multiplying (one digit by two digits and/or two digits by two digits) and dividing (limited to one-digit divisors) whole numbers and/or • solving problems involving fractions, decimals, percents, and/or ratios.	**doing two or more of the following:** • using each of the four operations on whole numbers (division up to two-digit divisors), • solving problems involving fractions, decimals, percents, and/or ratios, and/or • solving problems involving proportional reasoning.

NECAP GLEs M(G&M) — 1, 2, & 3 — Mathematics AGLE/Indicator — B1

Geometry and Measurement – Properties of 2- and 3-Dimensional Shapes and Apply Theorems

Student uses properties or attributes of angles, sides, and/or figures to:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• select, from two choices, a shape (circle, triangle, and/or square) that matches a given model or picture.	• match two shapes (circle, triangle, and/or square) when given a variety of models or pictures.	• identify circles, triangles, and squares.	• identify and classify two-dimensional shapes as circles, triangles, squares, or rectangles.
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
• identify circles, triangles, squares, rectangles, and parallelograms, **AND** • classify two-dimensional shapes.	**do two or more of the following:** • identify the number of angles in a polygon, • identify angles as more than, less than, or equal to 90 degrees, and/or • identify circles, triangles, squares, rectangles, parallelograms, and/or trapezoids.	**See Instructional AGLEs**	**See Instructional AGLEs**

NECAP GLEs M(G&M) — 4 & 5 — Mathematics AGLE/Indicator — B2

Geometry and Measurement – Congruency and Similarities

Student demonstrates conceptual understanding of congruency and similarity by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	Level of Complexity 2 (Grades 2–7, 2nd & 3rd Year HS)	Level of Complexity 3 (Grades 2–7, 2nd & 3rd Year HS)	Level of Complexity 4 (Grades 2–7, 2nd & 3rd Year HS)
• matching figures with the same shape and the same size (e.g., matching two rectangles of the same size).	• identifying congruent figures when given three choices.	• identifying congruent figures from slides (translations).	• identifying congruent figures **AND** • identifying similar figures.
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
See Instructional AGLEs	**See Instructional AGLEs**	**See Instructional AGLEs**	**See Instructional AGLEs**

NECAP GLE M(G&M) — 6 Mathematics AGLE/Indicator — B3

Geometry and Measurement – Perimeter, Area, Volume, and Circumference

Student demonstrates conceptual understanding of perimeter, area, volume, and circumference by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	Level of Complexity 2 (Grades 2–7, 2nd & 3rd Year HS)	Level of Complexity 3 (Grades 2–7, 2nd & 3rd Year HS)	Level of Complexity 4 (Grades 2–7, 2nd & 3rd Year HS)
• comparing two items based on length.	**doing one or more of the following:** • comparing two items based on length and/or • comparing two containers based on capacity.	**doing one or more of the following:** • comparing two items based on length and/or • comparing two items based on capacity, **AND** • comparing 2 two-dimensional figures based on area (e.g., placing one object on top of another to determine which takes up more space).	• measuring length using nonstandard units (e.g., paper clips) and standard units (limited to whole inches).
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
See Instructional AGLEs	**See Instructional AGLEs**	**See Instructional AGLEs**	**See Instructional AGLEs**

NECAP GLE M(G&M) — 7 Mathematics AGLE/Indicator — B4

Geometry and Measurement – Measure and Converting Between Units

Student measures and uses units of measures appropriately and consistently and makes conversions within systems when solving problems, including:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• comparing two items or events based on length or temperature by identifying, for example, which item/event is longer/ shorter or hotter/colder.	• comparing two items based on weight, for example, by identifying which item is heavier/ lighter, **AND** • comparing two items based on capacity, for example, by identifying which item has or holds more/less	• estimating and measuring length, temperature, weight, time, or capacity.	• estimating and measuring length, temperature, weight, time, and capacity.
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
doing one or more of the following: • measuring length (whole inches, feet, and/or centimeters), • telling time (hour to 15-minute intervals), and/or • reading temperature (degrees Fahrenheit).	**doing three or more of the following:** • measuring length (half and/or whole inches, feet, and/or centimeters), • telling time (hour to 10-minute intervals), • reading temperature (degrees Fahrenheit), and/or • computing equivalencies (12 inches = 1 foot and/or 24 hours = 1 day).	**See Instructional AGLEs**	**See Instructional AGLEs**

NECAP GLEs M(F&A) — 1 & 2 — Mathematics AGLE/Indicator — C1
Functions and Algebra – Patterns

Student demonstrates understanding of patterns and linear and nonlinear relationships by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• copying simple repeating patterns.	• extending simple repeating patterns of objects to the next step.	• extending a variety of patterns represented in sequences to the next step.	• extending a variety of patterns represented in tables/charts or sequences to the next one or two steps.
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
• extending a variety of patterns represented in tables/charts or sequences to the next one, two, or three steps or finding a missing step (e.g., 2, 4, 6, __, 10).	• extending a variety of patterns represented in models, tables/ charts, or sequences.	**doing one or more of the following:** • identifying and extending to specific cases a variety of linear patterns represented in models, tables/charts, sequences, or problem situations, and/or • writing a rule in words and symbols for finding specific cases of a linear or nonlinear relationship.	**doing two or more of the following:** • identifying and/or describing a constant rate of change between successive elements in a pattern in a variety of situations (e.g., when looking at a graph, student identifies the rate of change as being constant), • identifying and extending to specific cases a variety of patterns (linear and nonlinear) represented in models, tables/ charts, sequences, or problem situations, and/or • writing a rule in words and symbols for finding specific cases of a linear or nonlinear relationship.

Functions and Algebra – Equality and Algebraic Expressions

Student demonstrates conceptual understanding of equality and algebraic expressions by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• matching quantities that are equal (e.g., matching a set of 3 blocks to another set of 3 blocks).	• using concrete materials to represent a mathematical situation.	• using concrete materials and numeric symbols to represent sums and differences.	• finding the value that will make an open sentence true (limited to addition).
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
• finding the value that will make an open sentence true (limited to addition and subtraction).	• finding the value that will make an open sentence true (limited to addition, subtraction, and multiplication).	**doing one or more of the following:** • representing unknown quantities with letters to write linear algebraic expressions involving addition, subtraction, or multiplication or evaluating linear algebraic expressions using whole numbers, and/or • simplifying numerical expressions.	• representing unknown quantities with letters to write linear algebraic expressions involving any two of the four operations or evaluating linear algebraic expressions using whole numbers **AND** • showing equivalence between two expressions using models or different representations of expressions by solving one-step linear equations.

NECAP GLEs M(DSP) — 1 & 3 — Mathematics AGLE/Indicator — D1

Data, Statistics, and Probability – Interpreting Data

Student demonstrates ability to work with data, interprets a given representation, and identifies or describes representations or elements of representations that best display a given set of data or situation by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• collecting data.	• collecting and organizing data.	• collecting, organizing, and interpreting data.	• interpreting data in tables/charts.
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
• constructing and interpreting data in tables/charts.	• interpreting a given representation (table/chart, bar graph, or pictograph) and/or • constructing a representation (table/chart, bar graph, or pictograph) of given data	• answering questions related to data presented in a table/chart, frequency chart, bar graph, circle graph, or line graph **AND** • analyzing data presented in a table/chart, frequency chart, bar graph, circle graph, or line graph to formulate or justify conclusions, make predictions, or solve problems.	• answering questions related to data presented in a table/chart, frequency chart, bar graph, circle graph, or line graph, • analyzing data presented in a table/chart, frequency chart, bar graph, circle graph, or line graph to formulate or justify conclusions, make predictions, or solve problems, **AND** • describing representations or elements of representations that best display a given set of data or situation (e.g., when to use a bar graph vs. a line graph or the best intervals for the axes).

NECAP GLE M(DSP) — 2 — Mathematics AGLE/Indicator — D2

Data, Statistics, and Probability – Analyzing Data

Student analyzes patterns, trends, or distributions in data in a variety of contexts, including:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• using "more" or "less" when given a set of 3–6 objects (e.g., 6 marbles is more than 3 marbles).	• using "more" or "less" when given a set of 5–10 objects (e.g., 6 marbles is less than 8 marbles).	• using "more" or "less" to analyze data presented in charts and pictographs.	• using "more" or "less" to analyze data or solve problems based on data presented in charts and graphs.
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
• using "more," "less," or "equal" to analyze data or solve problems.	• using "most frequent" (mode), "least frequent," "largest/greatest," or "smallest/fewest" to analyze data or solve problems.	**See Instructional AGLEs**	**See Instructional AGLEs**

NECAP GLE M(DSP) — 5 — Mathematics AGLE/Indicator — D4

Data, Statistics, and Probability – Probability

For a probability event in which the sample space may or may not contain equally likely outcomes, student determines the probability of an event by:

Level of Complexity 1 (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 2** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 3** (Grades 2–7, 2nd & 3rd Year HS)	**Level of Complexity 4** (Grades 2–7, 2nd & 3rd Year HS)
• identifying appropriate outcomes after observing a simple event/ trial.	• identifying whether an outcome is "possible" or "impossible" after observing a simple event/trial with two possible outcomes.	• identifying whether an outcome is "more likely" or "less likely" after observing a simple event/ trial with two possible outcomes.	• recording the outcomes of simple events/trials and identifying the "more likely" and "less likely" outcomes.
Level of Complexity 5 (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 6** (Grades 6, 7, 2nd & 3rd Year HS)	**Level of Complexity 7** (2nd & 3rd Year HS)	**Level of Complexity 8** (2nd & 3rd Year HS)
• determining the likelihood of the occurrence of an event (with between five and ten outcomes) using "more likely," "less likely," and "equally likely."	• determining the likelihood of the occurrence of an event using "certain," "likely," "unlikely," and "impossible."	• determining the experimental or theoretical probability of an event and expressing the result as part-to-whole (e.g., two out of five).	• determining the experimental and theoretical probability of an event and expressing the result.

Science Alternate Grade Level Expectations

Based on Maine's *Accountability Standards, Chapter 131*

Maine's Accountability Standards, Chapter 131 — Science AGLE/Indicator — D1**
The Physical Setting – Universe and Solar System

Student understands the universal nature of matter, energy, force, and motion, and identifies how these relationships are exhibited in Earth Systems, in the solar system, and throughout the universe by:

Level of Complexity 1 (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 2** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 3** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 4** (Grades 5, 8, and 3rd Year HS)
describing or otherwise demonstrating understanding of the positions or apparent motions of different objects in our solar system and what these objects look like from Earth by...			
doing the following: • identifying night and day.	**doing <u>both</u> of the following:** • identifying pictures of night and day, **AND** • identifying the Sun and Earth's Moon.	**doing <u>one</u> or more of the following:** • identifying the position of the sun at different times by drawing or otherwise describing the movement of the Sun across the sky, and or • drawing or identifying different phases of the Moon.	**doing <u>both</u> of the following:** • identifying the position of the sun at different times by drawing or otherwise describing the movement of the Sun across the sky, and or **AND** • drawing or identifying different phases of the Moon.
Level of Complexity 5 (Grade 8 and 3rd Year HS)	**Level of Complexity 6** (Grade 8 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
See Instructional AGLEs	**See Instructional AGLEs**	**See Instructional AGLEs**	**See Instructional AGLEs**

Maine's Accountability Standards, Chapter 131 — Science AGLE/Indicator — D2**
The Physical Setting – Earth

Student understands the universal nature of matter, energy, force, and motion, and identifies how these relationships are exhibited in Earth Systems, in the solar system, and throughout the universe by:

Level of Complexity 1 (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 2** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 3** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 4** (Grades 5, 8, and 3rd Year HS)
describing the properties of Earth's surface materials, the processes that change them, and cycles that affect Earth by...			
doing the following: • identifying sunny, rainy, snowy, and/or windy weather through observation.	**doing the following:** • matching pictures to the type of weather they depict.	**doing the following:** • identifying the different forms that water can take in the weather.	**doing <u>one</u> of the following:** • matching weather to the effects it can have on the surface of Earth (erosion or weathering), and/or • identifying factors that can influence temperature in the environment (day/night cycle, cloud cover, and presence of a star).
Level of Complexity 5 (Grade 8 and 3rd Year HS)	**Level of Complexity 6** (Grade 8 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
See Instructional AGLEs	**See Instructional AGLEs**	**See Instructional AGLEs**	**See Instructional AGLEs**

Maine's Accountability Standards, Chapter 131 — Science AGLE/Indicator — D3
The Physical Setting – Matter and Energy

Student understands the universal nature of matter, energy, force, and motion, and identifies how these relationships are exhibited in Earth Systems, in the solar system, and throughout the universe by:

Level of Complexity 1 (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 2** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 3** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 4** (Grades 5, 8, and 3rd Year HS)
describing properties of objects and materials before and after they undergo a change or interaction by...			
doing the following: • matching objects based on one physical property.	**by doing the following:** • identifying which object in a group has a specific physical property.	**doing the following:** • sorting objects into groups using one or more physical properties.	**doing <u>both</u> of the following:** • describing the physical properties of objects and materials **AND** • using observable characteristics to describe changes in the physical properties of materials when mixed, heated, frozen, or cut.
Level of Complexity 5 (Grade 8 and 3rd Year HS)	**Level of Complexity 6** (Grade 8 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
describing physical and chemical properties of matter, interactions and changes in matter, and transfer of energy through matter by...		**describing the structure, behavior, and interactions of matter at the atomic level and the relationship between matter and energy by...**	
doing <u>both</u> of the following: • identifying chemical changes **AND** • identifying physical changes.	**doing <u>both</u> of the following:** • comparing the properties of original materials and their properties after undergoing chemical or physical change **AND** • observing and drawing conclusions about how the weight of an object compares to the sum of the weights of its parts.	**doing <u>both</u> of the following:** • explaining that all materials are made of small particles **AND** • identifying examples of chemical and physical changes.	**doing <u>both</u> of the following:** • explaining that adding heat causes the small particles in matter to move faster **AND** • demonstrating understanding that the properties of a material may change but the total amount of material remains the same.

Maine's Accountability Standards, Chapter 131 — Science AGLE/Indicator — D4**
The Physical Setting – Force and Motion

Student understands the universal nature of matter, energy, force, and motion, and identifies how these relationships are exhibited in Earth Systems, in the solar system, and throughout the universe by:

Level of Complexity 1 (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 2** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 3** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 4** (Grades 5, 8, and 3rd Year HS)
summarizing how various forces affect the motion of objects by...			
doing the following: • identifying or demonstrating **one** way (e.g., forward, backward, straight, zigzag, up, down, fast, slow) an object can move.	**doing the following:** • identifying or demonstrating **two** ways (e.g., forward, backward, straight, zigzag, up, down, fast, slow) an object can move.	**doing <u>both</u> of the following:** • describing or demonstrating **three** ways (e.g., forward, backward, straight, zigzag, up, down, fast, slow) an object can move **AND** • identifying that the way an object moves can be changed by pushing or pulling it.	**doing the following:** • demonstrating understanding of how given objects move.
Level of Complexity 5 (Grade 8 and 3rd Year HS)	**Level of Complexity 6** (Grade 8 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
describing the force of gravity, the motion of objects, the properties of waves, and the wavelike property of energy in light waves by...		**See Instructional AGLEs**	**See Instructional AGLEs**
doing the following: • identifying or describing wave motions, earthquakes, vibrations, and/or water waves.	**doing <u>one</u> or more of the following:** • giving examples of how gravity pulls objects, • giving examples of how magnets pull and push objects, and/or • describing similarities in motion of sound vibration and earthquakes, and water waves.		

Maine's Accountability Standards, Chapter 131 — Science AGLE/Indicator — E1
The Living Environment — Biodiversity

Student understands that cells are the basic unit of life, that all life as we know it has evolved through genetic transfer and natural selection to create a great diversity of organisms, and that these organisms create interdependent webs through which matter and energy flow. Student understands the similarities and differences between humans and other organisms and the interconnections of these interdependent webs by:

Level of Complexity 1 (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 2** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 3** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 4** (Grades 5, 8, and 3rd Year HS)
comparing living things based on their behaviors, external features, and environmental needs by...			
doing the following: • identifying pictures or descriptions of given animals or plants.	**doing the following:** • identifying given organisms as plants or animals based on external features.	**doing the following:** • identifying organisms that are similar and different based on external features, behaviors, and/or needs.	**doing <u>two</u> of the following:** • describing how plants and/or animals look, • describing the things that plants and/or animals do, and/or • describing ways in which the needs of a plant and/or animal are met by its environment.
Level of Complexity 5 (Grade 8 and 3rd Year HS)	**Level of Complexity 6** (Grade 8 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
differentiating among organisms based on biological characteristics and identifying patterns of similarity by...		**describing and analyzing the evidence for relatedness among and within diverse populations of organisms and the importance of biodiversity by...**	
sorting living things based on: • external features or behaviors	**doing <u>one</u> or more of the following:** • identifying how external (or internal) features can influence how an animal or plant gets food and/or • differentiate among living things that make their food, living things that eat their food, and those that do not clearly belong in one group or the other.	**doing <u>both</u> of the following:** • describing environments that have many different types of organisms and those that have fewer types of organisms,. **AND** • identifying ways that organisms are related using physical evidence, such as presence or absence of a backbone.	**doing the following:** • predicting possible changes that could result if the numbers of different types of organisms were to be drastically reduced.

Maine's Accountability Standards, Chapter 131 — Science AGLE/Indicator — E2**
The Living Environment — Ecosystems

Student understands that cells are the basic unit of life, that all life as we know it has evolved through genetic transfer and natural selection to create a great diversity of organisms, and that these organisms create interdependent webs through which matter and energy flow. Student understands the similarities and differences between humans and other organisms and the interconnections of these interdependent webs by:

Level of Complexity 1 (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 2** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 3** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 4** (Grades 5, 8, and 3rd Year HS)
describing ways organisms depend upon, interact within, and change the living and nonliving environment as well as ways the environment affects organisms by...			
doing the following: • identifying pictures or descriptions of given animals or plants.	**doing the following:** • identifying animals or plants that live in given environments.	**doing the following:** • identifying plants, animals, and/or components of their environments in which given animals depend on for food and shelter.	**doing the following:** • comparing animals and plants that live in different environments to demonstrate understanding of how animals and plants depend on each other and the environments in which they live.
Level of Complexity 5 (Grade 8 and 3rd Year HS)	**Level of Complexity 6** (Grade 8 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
See Instructional AGLEs	**See Instructional AGLEs**	**See Instructional AGLEs**	**See Instructional AGLEs**

Maine's Accountability Standards, Chapter 131 — Science AGLE/Indicator — E3**
The Living Environment — Cells

Student understands that cells are the basic unit of life, that all life as we know it has evolved through genetic transfer and natural selection to create a great diversity of organisms, and that these organisms create interdependent webs through which matter and energy flow. Student understands the similarities and differences between humans and other organisms and the interconnections of these interdependent webs by:

<table>
<tr><th>Level of Complexity 1
(Grades 5, 8, and 3rd Year HS)</th><th>Level of Complexity 2
(Grades 5, 8, and 3rd Year HS)</th><th>Level of Complexity 3
(Grades 5, 8, and 3rd Year HS)</th><th>Level of Complexity 4
(Grades 5, 8, and 3rd Year HS)</th></tr>
<tr><td colspan="4">describing how living things are made up of one or more cells and the ways cells help organisms meet their basic needs by...</td></tr>
<tr><td>doing the following:
• identifying given parts of the human body.</td><td>doing the following:
• matching animals and/or plants to their parts.</td><td>doing the following:
• identifying parts that allow living things to meet basic needs.</td><td>doing the following:
• identifying structures and/or processes that help given organisms stay alive.</td></tr>
<tr><th>Level of Complexity 5
(Grade 8 and 3rd Year HS)</th><th>Level of Complexity 6
(Grade 8 and 3rd Year HS)</th><th>Level of Complexity 7
(3rd Year HS)</th><th>Level of Complexity 8
(3rd Year HS)</th></tr>
<tr><td colspan="2">describing the hierarchy of organization and function in organisms, and the similarities and differences in structure, function, and needs among and within organisms by...</td><td rowspan="2">See Instructional AGLEs</td><td rowspan="2">See Instructional AGLEs</td></tr>
<tr><td>by doing one of the following:
• identifying that some living things are made of one cell and some living things are made of many cells, and/or
• identifying that all living things (single-celled and multi-celled) must have ways to get food and get rid of wastes.</td><td>doing <u>both</u> of the following:
• identifying that some living things are made of one cell and some living things are made of many cells
AND
• identifying that all living things (single-celled and multi-celled) must have ways to get food and get rid of wastes.</td></tr>
</table>

Maine's Accountability Standards, Chapter 131 — Science AGLE/Indicator — E4**
The Living Environment — Heredity and Reproduction

Student understands that cells are the basic unit of life, that all life as we know it has evolved through genetic transfer and natural selection to create a great diversity of organisms, and that these organisms create interdependent webs through which matter and energy flow. Student understands the similarities and differences between humans and other organisms and the interconnections of these interdependent webs by:

Level of Complexity 1 (Grades 5, 8, and 3rd Year HS)	Level of Complexity 2 (Grades 5, 8, and 3rd Year HS)	Level of Complexity 3 (Grades 5, 8, and 3rd Year HS)	Level of Complexity 4 (Grades 5, 8, and 3rd Year HS)
describing characteristics of organisms and the reason why organisms differ from or are similar to their parents by...			
doing the following: • identifying parents and their offspring by matching pictures of a baby organism to an adult of the same organism.	**doing the following:** • identifying things about offspring that are like and not like their parents.	**doing the following:** • demonstrating understanding of life cycles by explaining, drawing, or otherwise communicating knowledge of stages in given life cycles.	**doing <u>both</u> of the following:** • naming similarities between the adults and offspring of varied organisms **AND** • identifying and describing, drawing, or otherwise communicating knowledge of stages in a life cycle.
Level of Complexity 5 (Grade 8 and 3rd Year HS)	**Level of Complexity 6** (Grade 8 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
describing the general characteristics and mechanisms of reproduction and heredity in organisms, including humans, and ways in which organisms are affected by their genetic traits by...		**See Instructional AGLEs**	**See Instructional AGLEs**
doing the following: • identifying the characteristics of offspring and parents based on similarities and differences.	**doing <u>both</u> of the following:** • identifying living things that reproduce by getting all their inherited information from one parent **AND** • identifying living things that reproduce by getting all their inherited information from two parents.		

Maine's Accountability Standards, Chapter 131 — Science AGLE/Indicator — E5
The Living Environment — Evolution

Student understands that cells are the basic unit of life, that all life as we know it has evolved through genetic transfer and natural selection to create a great diversity of organisms, and that these organisms create interdependent webs through which matter and energy flow. Student understands the similarities and differences between humans and other organisms and the interconnections of these interdependent webs by:

Level of Complexity 1 (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 2** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 3** (Grades 5, 8, and 3rd Year HS)	**Level of Complexity 4** (Grades 5, 8, and 3rd Year HS)
describing fossil evidence and present explanations that help us understand why there are differences among and between present and past organisms by...			
doing the following: • identifying organisms from the local environment.	**doing the following:** • matching pictures of organisms to the environment in which they live.	**doing <u>both</u> of the following:** • identifying organisms that no longer live today **AND** • describing features that organisms no longer living today share with organisms now alive and features that differ from those of organisms now alive.	**doing <u>both</u> of the following:** • describing features that allow or allowed present and past organisms to live in their environment **AND** • identifying organisms that once lived on Earth but no longer exist.
Level of Complexity 5 (Grade 8 and 3rd Year HS)	**Level of Complexity 6** (Grade 8 and 3rd Year HS)	**Level of Complexity 7** (3rd Year HS)	**Level of Complexity 8** (3rd Year HS)
describing the evidence that evolution occurs over many generations, allowing species to acquire many of their unique characteristics or adaptations, by...		**describing the interactions between and among species, populations, and environments that lead to natural selection and evolution, by...**	
doing <u>both</u> of the following: • identifying examples of fossils **AND** • demonstrating understanding of how fossils are formed.	**doing the following:** • explaining how fossils are used to help us understand the past.	**doing the following:** • presenting explanations that help us understand similarities and differences among and between past and present organisms.	**doing <u>both</u> of the following:** • explaining why some organisms survive to the next generation **AND** • explaining why some organisms have traits that provide no apparent survival advantage.