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# Minnesota Test of Academic Skills (MTAS)

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Mathematics  
Reading  
Science

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Achievement Level  
Descriptors

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Document revised: July 2014

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**Minnesota** Department of  
**Education** 

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Minnesota Test of Academic Skills (MTAS)

**Achievement Level Descriptors**

for

Mathematics, Grades 3–8 and 11

Reading, Grades 3–8 and 10

Science, Grades 5, 8 and High School

For a copy in an alternate format, contact:

Minnesota Department of Education

Division of Statewide Testing

1500 Highway 36 West

Roseville, MN 55113-4266

Phone: 651-582-8200

Fax: 651-582-8874

Email: [mde.testing@state.mn.us](mailto:mde.testing@state.mn.us)

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July 2014

## Contents

Achievement Level Descriptors for the Minnesota Assessments .....	i
Mathematics, Grades 3–8.....	1
Grade 3 Mathematics MTAS Achievement Level Descriptors .....	2
Grade 4 Mathematics MTAS Achievement Level Descriptors .....	3
Grade 5 Mathematics MTAS Achievement Level Descriptors .....	4
Grade 6 Mathematics MTAS Achievement Level Descriptors .....	5
Grade 7 Mathematics MTAS Achievement Level Descriptors .....	6
Grade 8 Mathematics MTAS Achievement Level Descriptors .....	7
Mathematics, Grade 11 .....	9
Grade 11 Mathematics MTAS Achievement Level Descriptors .....	10
Reading, Grades 3–8 and 10.....	13
Grade 3 Reading MTAS Achievement Level Descriptors.....	14
Grade 4 Reading MTAS Achievement Level Descriptors.....	16
Grade 5 Reading MTAS Achievement Level Descriptors.....	18
Grade 6 Reading MTAS Achievement Level Descriptors.....	20
Grade 7 Reading MTAS Achievement Level Descriptors.....	22
Grade 8 Reading MTAS Achievement Level Descriptors.....	24
Grade 10 Reading MTAS Achievement Level Descriptors.....	26
Science, Grades 5, 8 and High School .....	29
Grade 5 Science MTAS Achievement Level Descriptors .....	30
Grade 8 Science MTAS Achievement Level Descriptors .....	32
High School Science MTAS Achievement Level Descriptors .....	34

# Achievement Level Descriptors for the Minnesota Assessments

## Overview

The Series III Minnesota assessments are based on the most recent academic content standards in Mathematics, Reading and Science. The academic standards are revised according to a schedule set forth by statute M.S. 120B.023. Two or three years after standards are revised and adopted, a new series of assessments is ready for operational administration. The Grade 11 Mathematics assessments were an exception to this timeline. Their implementation was delayed to allow students who were in Grade 8 at the time new standards were adopted in 2007 to take a grade 11 Mathematics assessment based on the 2003 standards. Most of these students' instruction prior to the grade 11 assessment was based on the 2003 standards. The schedule of standards revisions and first administrations of new assessments is shown in Table 1.

**Table 1: Standards and assessments revision schedule**

Activity	Mathematics	Science	English Language Arts
Standards revision	2006–2007	2008–2009	2009–2010
First operational administration of Series III assessments	Spring 2011: Grades 3–8  Spring 2014: Grade 11	Spring 2012: Grades 5, 8 and High School	Spring 2013: Grades 3–8 and 10 Reading assessment

## Achievement Levels

Following the first administration of new assessments, the Minnesota Department of Education must convene content area experts and stakeholders to determine, through a standard setting process, the levels of performance that are reported to students, parents and schools. Standard setting committees set the cut scores that delineate four levels of achievement on Minnesota statewide assessments. The achievement levels for the Minnesota assessments are:

- Exceeds the Achievement Standards
- Meets the Achievement Standards
- Partially Meets the Achievement Standards
- Does Not Meet the Achievement Standards

Students who achieve the “Meets” and “Exceeds” levels are considered proficient with regard to the knowledge, skills and abilities (KSAs) described in the academic standards, or in the case of alternate assessments, the extended standards presented in the test specifications.

The Achievement Level Descriptors (ALDs) for the Minnesota assessments provide a description of grade-level student performance for each of the achievement levels. The standards outline the goals teachers and students work toward over the course of an academic year. The Minnesota assessments measure students' attainment of these goals, and the ALDs explain grade-level student performance in each level of achievement based upon assessment results. Students who are proficient on the Minnesota assessments are considered to be on a trajectory for postsecondary success, and this high

expectation is reflected in the ALDs for performance in the “Meets” and “Exceeds” achievement levels. Students who are proficient by this measure are on a path to leave high school well prepared for the next phase of their education, training or entrance in the workforce.

There is a range of student performance represented within each achievement level described by the ALDs. As they wrote the descriptors for each grade and at each achievement level, the ALD development team members envisioned a student whose performance falls in the middle of the range. To capture the KSAs that differentiate student performance at one level from another, it was also necessary to keep in mind the upper and lower thresholds of the range within an achievement level in order to adequately distinguish the level from adjacent levels.

### ***Development of the Achievement Level Descriptors***

The ALD development teams included Minnesota Department of Education (MDE) staff with expertise in academic content standards and in assessment. The teams sought the advice of Minnesota educators when needed. After the teams wrote draft ALDs, the drafts were submitted for review to HumRRO, an independent organization. HumRRO has done extensive work in the evaluation of achievement and performance level descriptors, as well as the alignment of test items to content standards. A revised draft of the ALDs and HumRRO’s evaluation were then presented to Minnesota’s Technical Advisory Committee for review. If necessary, the draft ALDs were further revised to incorporate recommendations from the Technical Advisory Committee. This was the version used during the standard setting process.

Because the ALDs are essential to the standard setting process, the ALD development teams relied primarily on the academic standards and the test specifications to create the descriptions of student performance. Several questions were critical to the process:

- To what degree do students master each of the standards at each of the achievement levels?
- For which KSAs is it possible to describe gradations of performance across four levels and for which KSAs is it not feasible?
- How, according to the test specifications, are students able to show their mastery of KSAs?

By keeping these questions in mind, the ALD developers are certain they created descriptors that can be supported by evidence in the test design and in student performance on both statewide and classroom assessments. Understanding how test items can tease out partial mastery of standards and benchmarks is vital to the process of creating ALDs. Variables that can be managed in test items include the degree of specificity or abstraction to which students must drill down, the amount of scaffolding provided directly or through carefully chosen wording, and the alignment to measures of cognitive complexity. It is also necessary to understand how the level of granularity of standards and benchmarks determines the extent to which they can be described across a continuum of performance levels. It is possible to distinguish four levels of performance in many benchmarks, but in others it is not. For example, for some benchmarks, we expect students to demonstrate mastery at the “Meets” level and the KSAs of the benchmarks will not be carried through to the “Exceeds” descriptor. In another instance, a benchmark may not lend itself to fine distinctions in levels of performance. In this case, the KSAs of the benchmark may appear only at the “Meets” level, and students are either able to do it or not. In Reading, ALDs may repeat across grades as a result of more rigorous text complexity across grades and does not suggest laxity in performance expectations.

The ALD development team drafted the ALDs over the course of multiple working sessions. During these sessions, the team referred frequently to the academic standards and the test specifications, as noted above. With the exception of the alternate assessments, teams also relied on the language of Webb's Depth of Knowledge scale to describe cognitive complexity. The ALD team began work on each grade level by first describing performance that "Meets the Standards." The "Meets" level separates proficient performance from performance that is partially proficient or not proficient. Because the assessments are targeted to make the distinction between proficient and less than proficient, there is more evidence of student performance to draw upon at this achievement level. It is also important to develop an accurate description of the "Meets" level since it is critical for purposes of accountability. After describing "Meets the Standards," the ALD team turned its attention to "Exceeds the Standards," and then worked its way down the scale to "Partially Meets" and "Does Not Meet."

The draft ALDs that resulted from these sessions were subsequently reviewed and revised by MDE's assessment specialists to ensure that each team's intentions and commentary were accurately reflected in the descriptors. They also reviewed the articulation of the descriptors across achievement levels within a grade as well as the articulation of each of the four achievement levels across grades. In other words, did descriptions of what students know and can do increase appropriately from "Does Not Meet the Achievement Standards" to "Exceeds the Achievement Standards" within a grade? And did descriptions of what students know and can do at a level such as "Meets the Achievement Standards" increase appropriately across the grades?

### ***Finalizing the ALDs***

The ALDs were presented to standard setting committees as a policy document following the first operational administration of a new assessment. It is the State's intention that students who achieve a given proficiency level can demonstrate the knowledge, skills and abilities described in these ALDs, and the purpose of standard setting is not to review or revise the ALD document but to apply it in the determination of cut scores. The standard setting committees were required to create threshold or "just barely meets" descriptors from these ALDs and to apply them to the performance they saw demonstrated in the standard setting materials. The threshold descriptors and the associated cut scores represent the minimum performance required to meet a given achievement level's expectations. The committees recommended no substantive changes to the performance descriptions at each level of the ALDs while engaged in the process of creating threshold descriptors and setting cut scores. The ALDs were finalized when the Commissioner of Education approved the cut scores recommended by the standard setting committees.

## **Achievement Level Descriptors**

### **Minnesota Test of Academic Skills (MTAS)**

#### **Mathematics, Grades 3–8**

Standards revision:	2007
First operational test administration:	Spring 2011
Achievement Level Descriptors approved:	July 2011

## Grade 3 Mathematics MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 3

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports:

- Recognize numbers 1–10
- Recognize operation symbols such as + and -
- Recognize squares, circles and triangles
- Recognize a pictograph

### Partially Meets the Alternate Achievement Standards

Grade 3

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports:

- Order whole numbers
- Identify repeating and growing patterns
- Identify shapes based on the number of sides
- Recognize parts of a pictograph and bar graph

### Meets the Alternate Achievement Standards

Grade 3

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports:

- Compare whole numbers 1 – 20
- Identify rules to represent patterns, such as +1 and -1
- Identify shapes based on the number of sides and the number of angles
- Interpret data in a pictograph

### Exceeds the Alternate Achievement Standards

Grade 3

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports:

- Compare whole numbers up to 100
- Identify and apply rules to represent patterns
- Identify parallel and perpendicular lines in a shape
- Interpret a simple bar graph

## Grade 4 Mathematics MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 4

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports:

- Count objects represented graphically
- Indicate “one more” of a number
- Recognize basic symbols (+, -, and =) in number sentences
- Identify squares
- Identify pictographs and bar graphs

### Partially Meets the Alternate Achievement Standards

Grade 4

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports:

- Add and subtract one-digit numbers
- Identify a real-world situation that corresponds to a number sentence involving multiplication
- Classify squares and rectangles
- Interpret data in a pictograph

### Meets the Alternate Achievement Standards

Grade 4

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports:

- Multiply one-digit numbers with graphical support
- Identify a real-world situation that corresponds to a number sentence involving multiplication or division
- Describe squares, rectangles, and parallelograms
- Interpret data in a table

### Exceeds the Alternate Achievement Standards

Grade 4

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports:

- Divide one-digit numbers with graphical support
- Find an unknown value in a number sentence involving multiplication
- Describe and classify quadrilaterals
- Interpret a bar graph or line plot

## Grade 5 Mathematics MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 5

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports:

Add one-digit numbers represented graphically (e.g.,

$$\square\square\square + \square\square\square\square = \square\square\square\square$$

Locate whole numbers on a number line

Identify a real-world situation that corresponds to a simple equation

Recognize some two-dimensional shapes

Identify different types of data displays, including double-bar graphs and line graphs

### Partially Meets the Alternate Achievement Standards

Grade 5

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports:

Add and subtract one- and two-digit numbers

Recognize numbers written as decimals

Represent real-world situations with simple equations

Identify three-dimensional shapes such as cubes, cones and cylinders

Read tables

### Meets the Alternate Achievement Standards

Grade 5

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports:

Solve two-step addition and subtraction problems

Identify equivalent fractions represented graphically

Identify the value of one variable in simple equations

Count faces on three-dimensional shapes

Read line graphs

### Exceeds the Alternate Achievement Standards

Grade 5

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports:

Solve simple multiplication problems

Order fractions on a number line

Evaluate an expression for a given value of a variable

Count edges on three-dimensional shapes

Interpret double-bar graphs

## Grade 6 Mathematics MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 6

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports:

- Order whole numbers on a number line
- Recognize that both sides of an equation have equal value
- Identify inches, feet, and yards
- Recognize that some events are more likely to occur than others

### Partially Meets the Alternate Achievement Standards

Grade 6

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports:

- Identify points on a coordinate grid
- Identify a variable as a quantity that can change
- Recognize that geometric measurement units and capacity units measure different things
- Recognize probability as likelihood of an event

### Meets the Alternate Achievement Standards

Grade 6

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports:

- Identify ordered pairs on a coordinate grid
- Recognize variables change as other quantities change
- Solve simple conversion problems, such as 3 feet = 1 yard
- Represent probabilities as fractions

### Exceeds the Alternate Achievement Standards

Grade 6

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports:

- Locate ordered pairs on a coordinate grid
- Represent the relationship between two varying quantities with a table
- Solve conversion problems involving geometric measurement, capacity, and time units
- Represent probabilities as fractions or ratios

## Grade 7 Mathematics MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 7

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports:

- Add positive and negative integers
- Recognize an equation
- Identify an example of a scale drawing
- Identify a real-world situation involving probability, such as in a weather forecast

### Partially Meets the Alternate Achievement Standards

Grade 7

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports

- Add and subtract positive and negative integers
- Recognize that a real-world situation can be represented with an equation
- Recognize the relationship between scale drawings and full-size drawings
- Identify probability as the likelihood of an event occurring

### Meets the Alternate Achievement Standards

Grade 7

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports:

- Add and subtract integers and fractions
- Find solutions to equations with proportional relationships with graphical support
- Solve problems involving scale drawings
- Select a fraction to represent probability with graphical support

### Exceeds the Alternate Achievement Standards

Grade 7

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports:

- Multiply and divide integers
- Represent a situation with an equation or inequality that involves a variable
- Solve equations involving proportional relationships
- Use proportions to solve problems involving scale drawings
- Calculate simple probabilities by representing outcomes as fractions

## Grade 8 Mathematics MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 8

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports:

- Identify a point on a number line
- Recognize that a variable can be used to represent a quantity that changes
- Recognize slope in real objects such as ramps
- Identify scatterplots

### Partially Meets the Alternate Achievement Standards

Grade 8

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports:

- Locate fractions on a number line
- Recognize that one or more values can replace a variable
- Identify parallel lines
- Recognize line of best fit on scatterplots

### Meets the Alternate Achievement Standards

Grade 8

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports:

- Compare rational numbers
- Evaluate an algebraic expression when the value of one variable is given
- Recognize that parallel lines have the same slope
- Estimate line of best fit on scatterplots

### Exceeds the Alternate Achievement Standards

Grade 8

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports:

- Compare rational numbers, including fractions that do not have common denominators
- Evaluate algebraic expressions when values of variables are given
- Identify the slope of a line when given the slope of a parallel line
- Use line of best fit to make predictions on a scatterplot



**Achievement Level Descriptors**  
**Minnesota Test of Academic Skills (MTAS)**  
**Mathematics, Grade 11**

Standards revision	2007
First operational test administration	Spring 2014
Achievement Level Descriptors approved	July 2014

## Grade 11 Mathematics MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 11

Students at this level succeed at a limited number of the most fundamental skills represented by the alternate achievement standards for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the extensive use of supports:

#### Algebra

- Identifies the context of the graph of a function
- Identifies a graph and a table
- Recognizes a coordinate grid

#### Geometry & Measurement

- Recognizes that decomposition does not change the area of a two-dimensional figure
- Finds the middle of a line segment
- Uses side lengths or angle measures to sort triangles

#### Data Analysis & Probability

- Recognizes a scatterplot
- Connects likelihood to real world events (e.g., rain)

### Partially Meets the Alternate Achievement Standards

Grade 11

Students at this level succeed at some of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the frequent use of supports:

#### Algebra

- Identifies a linear function
- Given a function in graphical or tabular form, finds the next value
- Finds a point on a graph of a linear function

#### Geometry & Measurement

- Identifies the steepness of a line
- Identifies equilateral and scalene triangles based on side lengths
- Identifies right triangles

#### Data Analysis & Probability

- When given a data set, adds the values
- Understands mathematical probability concepts (e.g., some events are more likely to occur than others)
- Identifies positive and negative trends in a scatterplot

Students at this level succeed at many of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with the occasional use of supports:

**Algebra**

- Distinguishes between a function and other relations
- Identifies the domain of a function when provided real-world context
- Identifies the graph of a function based on a function table

**Geometry & Measurement**

- Calculates area of a two-dimensional figure
- Identifies 30-60-90 and 45-45-90 triangles
- Identifies graphic representations of reflections and translations on a coordinate grid
- Identifies the slope of a line that is parallel to another line

**Data Analysis & Probability**

- Finds the median and range in a sequentially ordered data set
- Names the two variables that determine data points on a scatterplot
- Applies probability concepts to real-world situations and expresses simple probability of an event as a fraction

Students at this level succeed at most of the skills represented by the alternate achievement standards set for the Minnesota Academic Standards in mathematics. The following are some of the skills these students demonstrate with little to no use of supports:

**Algebra**

- Interprets information from the graph of a linear function
- Solves mathematical problems involving linear functions using substitution

**Geometry & Measurement**

- Uses graphic representations to identify scale factor
- Calculates slope using rise/run when given two points on a line
- Uses decomposition of a two-dimensional figure to determine area

**Data Analysis & Probability**

- Makes predictions based on regression lines in scatterplots
- Given a whole number data set, calculates mean
- Uses a tree diagram to determine number of possible outcomes (sample space)



**Achievement Level Descriptors**  
**Minnesota Test of Academic Skills (MTAS)**  
**Reading, Grades 3–8 and 10**

Standards revision	2010
First operational test administration	Spring 2013
Achievement Level Descriptors approved	July 2013

## Grade 3 Reading MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 3

Students at this level succeed at a limited number of the most fundamental skills on the extended standards of the Minnesota Academic Standards in Reading. Given extensive verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Identify topic of a reading passage
- Recognize a primary character in a story or poem

#### **Craft and Structure (Standard 4)**

- Recognize literal meanings of known words
- Recognize the meaning of common content area vocabulary

### Partially Meets the Alternate Achievement Standards

Grade 3

Students at this level succeed at some of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given frequent verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Recognize clearly stated main idea/central message and some details in a reading passage
- Identify a primary character in a story or poem
- Recognize the actions of a primary character in a story or poem
- Recognize some steps in a basic sequence of events or in a process

#### **Craft and Structure (Standard 4)**

- Identify literal meanings of known words by using explicit context clues
- Identify the meaning of grade-level, content area vocabulary

### Meets the Alternate Achievement Standards

Grade 3

Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Identify main idea/central message and details in a reading passage
- Identify main characters in a story or poem
- Identify the actions of characters in a story or poem
- Identify basic sequence of events or steps in a process
- Recognize an effect when given a cause

#### **Craft and Structure (Standard 4)**

- Determine literal meanings of known words by using explicit context clues
- Determine the meaning of grade-level, content area vocabulary

Students at this level succeed at most of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given little or no verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

**Key Ideas and Details (Standards 1, 2, 3)**

- Make connections between main idea/central message and key details of a reading passage
- Identify the actions and emotions of characters in a story or poem
- Answer literal questions about a story or poem
- Sequence events or steps in a process
- Identify an effect when given a cause

**Craft and Structure (Standard 4)**

- Determine literal meanings of new words by using context clues
- Determine the meaning of new grade-level, content area vocabulary

## Grade 4 Reading MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 4

Students at this level succeed at a limited number of the most fundamental skills on the extended standards of the Minnesota Academic Standards in Reading. Given extensive verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Identify topic of a reading passage
- Recognize a primary character in a story or poem

#### **Craft and Structure (Standard 4)**

- Recognize literal meanings of known words
- Recognize the meaning of common content area vocabulary

### Partially Meets the Alternate Achievement Standards

Grade 4

Students at this level succeed at some of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given frequent verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Recognize clearly stated main idea/central message and some details in a reading passage
- Identify a primary character in a story or poem
- Recognize the actions of a primary character in a story or poem
- Recognize some steps in a basic sequence of events or in a process
- Answer literal questions about a story or poem

#### **Craft and Structure (Standard 4)**

- Identify literal meanings of new words by using explicit context clues
- Recognize the meaning of grade-level, content area vocabulary

### Meets the Alternate Achievement Standards

Grade 4

Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Identify main idea/central message and details in a reading passage
- Identify main characters in a story or poem
- Identify the key actions and emotions of characters in a story or poem
- Answer literal questions about a story, poem or informational text
- Identify basic sequence of events or steps in a process
- Recognize setting in a story or poem
- Summarize parts of a text (e.g., paragraph)
- Recognize an effect when given a cause

**Craft and Structure (Standard 4)**

- Determine literal meanings of new words by using explicit context clues
- Determine the meaning of grade-level, content area vocabulary

**Exceeds the Alternate Achievement Standards****Grade 4**

Students at this level succeed at most of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given little or no verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

**Key Ideas and Details (Standards 1, 2, 3)**

- Make connections between main idea/central message and key details of a reading passage
- Identify the actions, emotions and behavior of characters in a story or poem
- Answer literal and basic inferential questions about a story, poem or informational text
- Sequence events or steps in a process
- Make connections between characters and setting
- Summarize whole text
- Identify a cause and/or effect
- Draw a simple conclusion based on information in a reading passage
- Make basic inferences based on a reading passage

**Craft and Structure (Standard 4)**

- Determine literal meanings of new and/or multiple meaning words by using context clues
- Determine the meaning of new grade-level, content area vocabulary

## Grade 5 Reading MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 5

Students at this level succeed at a limited number of the most fundamental skills on the extended standards of the Minnesota Academic Standards in Reading. Given extensive verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Identify topic of a reading passage
- Recognize a primary character in a story or poem

#### **Craft and Structure (Standard 4)**

- Recognize literal meanings of known words
- Recognize the meaning of common content area vocabulary

### Partially Meets the Alternate Achievement Standards

Grade 5

Students at this level succeed at some of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given frequent verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Recognize clearly stated main idea/central message and some details in a reading passage
- Identify a primary character in a story or poem
- Recognize the actions of a primary character in a story or poem
- Recognize some steps in a basic sequence of events or in a process
- Answer literal questions about a story or poem
- Identify setting in a story or poem

#### **Craft and Structure (Standard 4)**

- Identify literal meanings of new words by using explicit context clues
- Recognize the meaning of grade-level, content area vocabulary

### Meets the Alternate Achievement Standards

Grade 5

Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Identify main idea/central message and supporting details in a reading passage
- Identify the key actions, emotions and behavior of characters in a story or poem
- Answer literal questions about a story, poem or informational text
- Identify basic sequence of events or steps in a process
- Identify explicit connections between characters and setting in a story or poem
- Summarize parts of a text (e.g., paragraph)
- Recognize an effect when given a cause

Draw a simple conclusion based on information in a reading passage  
Make basic inferences based on a reading passage

**Craft and Structure (Standard 4)**

Determine literal meanings of new words by using context clues  
Determine the meaning of grade-level, content area vocabulary

**Exceeds the Alternate Achievement Standards**

**Grade 5**

Students at this level succeed at most of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given little or no verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

**Key Ideas and Details (Standards 1, 2, 3)**

Make connections between main idea/central message and key details of a reading passage  
Identify multiple traits and behaviors of characters in a story or poem  
Answer literal and basic inferential questions about a story, poem or informational text  
Sequence events or steps in a process  
Make relevant connections between characters and setting  
Summarize whole text  
Identify a cause and/or effect  
Draw appropriate conclusions based on a literal interpretation of a reading passage  
Make logical inferences based on a reading passage

**Craft and Structure (Standard 4)**

Determine literal meanings of new and/or multiple meaning words by using context clues  
Determine the meaning of new grade-level, content area vocabulary

## Grade 6 Reading MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 6

Students at this level succeed at a limited number of the most fundamental skills on the extended standards of the Minnesota Academic Standards in Reading. Given extensive verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Recognize clearly expressed main idea/central message of a reading passage
- Identify a primary character and character's basic emotions in a story or poem

#### **Craft and Structure (Standard 4)**

- Recognize literal meanings of known words
- Recognize the meaning of common content area vocabulary

### Partially Meets the Alternate Achievement Standards

Grade 6

Students at this level succeed at some of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given frequent verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Identify main idea/central message and some details in a reading passage
- Identify primary characters and their actions and basic emotions in a story or poem
- Recognize some steps in a basic sequence of events or in a process
- Answer literal questions about a story or poem
- Identify setting in a story or poem
- Identify an appropriate summary of a reading passage

#### **Craft and Structure (Standard 4)**

- Identify literal meanings of new words by using explicit context clues
- Recognize the meaning of grade-level, content area vocabulary

### Meets the Alternate Achievement Standards

Grade 6

Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

#### **Key Ideas and Details (Standards 1, 2, 3)**

- Identify main idea/central message and relevant, supporting details in a reading passage
- Identify characters and their key actions, emotions and behaviors in a story or poem
- Answer literal questions about a story, poem or informational text
- Identify sequence of key events or steps in a process
- Identify explicit connections between characters and setting in a story or poem
- Summarize parts of a text (e.g., paragraph)
- Recognize cause and effect

Draw a simple conclusion based on information in a reading passage  
Make basic inferences based on a reading passage

**Craft and Structure (Standard 4)**

Determine literal meanings of new words by using context clues  
Determine the meaning of grade-level, content area vocabulary

**Exceeds the Alternate Achievement Standards**

**Grade 6**

Students at this level succeed at most of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given little or no verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

**Key Ideas and Details (Standards 1, 2, 3)**

Make connections between main idea/central message and key details of a reading passage  
Identify multiple traits and behaviors of characters in a story or poem  
Answer literal and basic inferential questions about a story, poem or informational text  
Sequence events or steps in a process  
Make relevant connections between characters and setting in a story or poem  
Summarize whole text  
Identify a cause and/or effect  
Draw appropriate conclusions based on a literal interpretation of a reading passage  
Make logical inferences based on a reading passage  
Identify the plot of a story

**Craft and Structure (Standard 4)**

Determine literal meanings of new and/or multiple meaning words by using context clues  
Determine the meaning of new grade-level, content area vocabulary

## Grade 7 Reading MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 7

Students at this level succeed at a limited number of the most fundamental skills on the extended standards of the Minnesota Academic Standards in Reading. Given extensive verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### Key Ideas and Details (Standards 1, 2, 3)

- Recognize clearly expressed main idea/central message of a reading passage
- Identify a primary character and character's basic emotions in a story or poem
- Make predictions about a reading passage minimally based on explicit information in the text

#### Craft and Structure (Standard 4)

- Recognize literal meanings of known words
- Recognize the meaning of common content area vocabulary

### Partially Meets the Alternate Achievement Standards

Grade 7

Students at this level succeed at some of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given frequent verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### Key Ideas and Details (Standards 1, 2, 3)

- Identify main idea/central message and some details in a reading passage
- Identify primary characters and their actions and basic emotions in a story or poem
- Recognize some steps in a basic sequence of events or in a process
- Answer literal questions about a story or poem
- Identify the setting of a story or poem
- Identify an appropriate summary of a reading passage
- Given a cause, recognize an effect
- Make inferences or predictions about a reading passage partially based on information in the text

#### Craft and Structure (Standard 4)

- Determine literal meanings of new words by using explicit context clues
- Recognize the meaning of grade-level content area vocabulary

### Meets the Alternate Achievement Standards

Grade 7

Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

#### Key Ideas and Details (Standards 1, 2, 3)

- Identify main idea/central message and relevant, supporting details in a reading passage
- Identify characters and their key actions, emotions and behaviors in a story or poem
- Answer literal questions about a story, poem or informational text
- Identify sequence of key events or steps in a process
- Identify explicit connections between characters and setting in a story or poem

- Summarize parts of a text (e.g., paragraph)
- Recognize cause and effect
- Draw simple conclusions based on information in a reading passage
- Make basic inferences and predictions based on a reading passage

**Craft and Structure (Standard 4)**

- Determine literal meanings of new words by using context clues
- Determine the meaning of grade-level content area vocabulary

**Exceeds the Alternate Achievement Standards**

**Grade 7**

Students at this level succeed at most of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given little or no verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

**Key Ideas and Details (Standards 1, 2, 3)**

- Make connections between main idea/central message and key details of a reading passage
- Identify multiple traits and behaviors of characters in a story or poem
- Answer literal and basic inferential questions about a story, poem or informational text
- Sequence events or steps in a process
- Make relevant connections between characters and setting in a story or poem
- Summarize whole text
- Identify cause and effect
- Draw appropriate conclusions based on a literal interpretation of a reading passage
- Make logical inferences, predictions and generalizations based on a reading passage

**Craft and Structure (Standard 4)**

- Determine literal meanings of new and or multiple meaning words by using context clues
- Determine the meaning of new grade-level content area vocabulary

## Grade 8 Reading MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 8

Students at this level succeed at a limited number of the most fundamental skills on the extended standards of the Minnesota Academic Standards in Reading. Given extensive verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### Key Ideas and Details (Standards 1, 2, 3)

- Recognize clearly expressed main idea/central message of a reading passage
- Identify a primary character and character's basic emotions in a story or poem
- Make predictions about a reading passage minimally based on explicit information in the text

#### Craft and Structure (Standard 4)

- Recognize known words
- Recognize common content area vocabulary

### Partially Meets the Alternate Achievement Standards

Grade 8

Students at this level succeed at some of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given frequent verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### Key Ideas and Details (Standards 1, 2, 3)

- Identify main idea/central message and some details in a reading passage
- Identify primary characters and their actions and basic emotions in a story or poem
- Identify one difference between two characters in a story or poem
- Recognize steps in a basic sequence of events or in a process
- Answer literal questions about a story or poem
- Identify the setting in a story or poem
- Identify an appropriate summary of a reading passage
- Given a cause, recognize an effect
- Make inferences or predictions about a reading passage partially based on information in the text
- Recognize the basic plot of a story

#### Craft and Structure (Standard 4)

- Determine literal meanings of new words by using explicit context clues
- Recognize the meaning of grade-level content area vocabulary

### Meets the Alternate Achievement Standards

Grade 8

Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

#### Key Ideas and Details (Standards 1, 2, 3)

- Identify main idea/central message and relevant, supporting details in a reading passage
- Identify characters and their key actions, emotions and behaviors in a story or poem
- Contrast two characters in a story or poem

- Answer literal questions about a story, poem or informational text
- Identify sequence of key events or steps in a process
- Identify explicit connections between characters and setting in a story or poem
- Summarize parts of a text (e.g., paragraph)
- Recognize cause and effect
- Draw simple conclusions based on information in a reading passage
- Make basic inferences and predictions based on a reading passage
- Recognize the general plot of a story

**Craft and Structure (Standard 4)**

- Determine literal meanings of new words by using context clues
- Determine the meaning of grade-level content area vocabulary

**Exceeds the Alternate Achievement Standards**

**Grade 8**

Students at this level succeed at most of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given little or no verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

**Key Ideas and Details (Standards 1, 2, 3)**

- Make connections between main idea/central message and key details of a reading passage
- Identify multiple traits and behaviors of characters in a story or poem
- Compare and contrast characters in a story or poem
- Answer literal and basic inferential questions about a story, poem or informational text
- Sequence events or steps in a process
- Make relevant connections between characters and setting in a story or poem
- Summarize whole text
- Identify cause and effect
- Draw appropriate conclusions based on a literal interpretation of a reading passage
- Make logical inferences, predictions and generalizations based on a reading passage
- Identify the plot of a story

**Craft and Structure (Standard 4)**

- Determine literal meanings of new words or multiple meaning words by using context clues
- Determine the meaning of new grade-level content area vocabulary

## Grade 10 Reading MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 10

Students at this level succeed at a limited number of the most fundamental skills on the extended standards of the Minnesota Academic Standards in Reading. Given extensive verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### Key Ideas and Details (Standards 1, 2, 3)

- Recognize clearly expressed main idea/central message of a reading passage
- Identify a primary character and character's basic emotions in a story or poem
- Make predictions about a reading passage minimally based on explicit information in the text

#### Craft and Structure (Standard 4)

- Recognize known words
- Recognize common content area vocabulary

### Partially Meets the Alternate Achievement Standards

Grade 10

Students at this level succeed at some of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given frequent verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

#### Key Ideas and Details (Standards 1, 2, 3)

- Identify main idea/central message and details in a reading passage
- Identify primary characters and their actions and basic emotions in a story or poem
- Identify one difference between two characters in a story or poem
- Recognize steps in a basic sequence of events or in a process
- Answer literal questions about a story or poem
- Identify the setting of a story or poem
- Identify an appropriate summary of a reading passage
- Given a cause, recognize an effect
- Make inferences or predictions about a reading passage partially based on information in the text
- Recognize the basic plot of a story

#### Craft and Structure (Standard 4)

- Determine literal meanings of new words by using explicit context clues
- Recognize the meaning of grade-level content area vocabulary

### Meets the Alternate Achievement Standards

Grade 10

Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

#### Key Ideas and Details (Standards 1, 2, 3)

- Identify main idea/central message and relevant, supporting details in a reading passage
- Identify characters and their key actions, emotions and behaviors in a story or poem
- Contrast two characters in a story or poem

- Answer literal questions about a story, poem or informational text
- Identify sequence of key events or steps in a process
- Identify explicit connections between characters and setting in a story or poem
- Summarize parts of a text (e.g., paragraph)
- Recognize cause and effect
- Draw conclusions based on information in a reading passage
- Make basic inferences and predictions based on a reading passage
- Recognize the general plot of a story

**Craft and Structure (Standard 4)**

- Determine literal meanings of new words by using context clues
- Determine the meaning of grade-level content area vocabulary

**Exceeds the Alternate Achievement Standards Grade 10**

Students at this level succeed at most of the skills on the extended standards of the Minnesota Academic Standards in Reading. Given little or no verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

**Key Ideas and Details (Standards 1, 2, 3)**

- Make connections between main idea/central message and key details of a reading passage
- Identify multiple traits and behaviors of characters in a story or poem
- Compare and contrast characters in a story or poem
- Answer literal and basic inferential questions about a story, poem or informational text
- Sequence events or steps in a process
- Make relevant connections between characters and setting in a story or poem
- Summarize whole text
- Identify cause and effect
- Draw appropriate conclusions based on a reasonable interpretation of a reading passage
- Make logical inferences, predictions and generalizations based on a reading passage
- Identify the plot of a story

**Craft and Structure (Standard 4)**

- Determine literal meanings of new and multiple meaning words by using context clues
- Determine the meaning of new grade-level content area vocabulary



**Achievement Level Descriptors**  
**Minnesota Test of Academic Skills (MTAS)**  
**Science, Grades 5, 8 and High School**

Standards revision	2009
First operational test administration	Spring 2012
Achievement Level Descriptors approved	July 2012

## Grade 5 Science MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 5

Students at this level succeed at a limited number of the most fundamental skills on the extended standards of the Minnesota Academic Standards in Science. Given extensive verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

- Recognize tools used in scientific investigations
- Identify common solids and liquids
- Know forms of precipitation such as snow and rain
- Recognize materials that can be recycled
- Name common plants and animals
- Know some of the most common methods of personal hygiene that prevent illness

### Partially Meets the Alternate Achievement Standards

Grade 5

Students at this level succeed at some of the skills on the extended standards of the Minnesota Academic Standards in Science. Given frequent verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

- Identify the purpose of a tool used in scientific investigations
- Classify examples of solids, liquids, and gases
- Identify where precipitation occurs within the water cycle
- Recognize some examples of recycling, reducing, and reusing materials
- Sort plants and/or animals based on their physical characteristics
- Know some methods of personal hygiene that contribute to health

### Meets the Alternate Achievement Standards

Grade 5

Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Science. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

- Select the tool appropriate for a given scientific investigation
- Know how temperature affects changes in states of matter (solid to liquid, liquid to gas, liquid to solid)
- Distinguish precipitation and collection within a water cycle
- Identify recycling as a solution to the environmental problem of solid waste
- Classify plants and animals based on physical characteristics
- Identify several methods of personal hygiene that help prevent germs from entering the body

### Exceeds the Alternate Achievement Standards

Grade 5

Students at this level succeed at most of the skills on the extended standards of the Minnesota Academic Standards in Science. Given little or no verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

- Select the tools appropriate for scientific investigations in a variety of contexts

Understand the role of temperature in changes in states of matter (solid to liquid, liquid to gas, liquid to solid, and gas to liquid)

Know that the amount of precipitation impacts the amount of collection within a water cycle

Identify recycling, reducing, and reusing as appropriate solutions to the environmental problem of solid waste

Classify multiple characteristics of plants and animals

Understand how methods of personal hygiene contribute to health

## Grade 8 Science MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

Grade 8

Students at this level succeed at a limited number of the most fundamental skills on the extended standards of the Minnesota Academic Standards in Science. Given extensive verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

- Identify common engineered systems
- Recognize common examples of solids, liquids, or gases
- Recognize a push or pull as a force
- Understand that landforms can change
- Recognize that the human body contains organs
- Know that diseases exist

### Partially Meets the Alternate Achievement Standards

Grade 8

Students at this level succeed at some of the skills on the extended standards of the Minnesota Academic Standards in Science. Given frequent verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

- Identify ways that people use common engineered systems
- Recognize when matter has undergone a physical change
- Understand that forces cause a change in motion
- Identify how weathering changes landforms
- Understand that the human body contains organs that have different functions
- Recognize that diseases are caused by organisms

### Meets the Alternate Achievement Standards

Grade 8

Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Science. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

- Identify common engineered systems that benefit daily life
- Recognize when matter has undergone a chemical change
- Show that an object will move in the direction of an applied force
- Understand that an object may change speed when a force is applied
- Identify the effects of weathering, erosion, and deposition on landforms
- Identify organs in the respiratory, circulatory, and digestive systems (e.g., lungs, stomach, heart)
- Understand that some organisms cause diseases in humans

Students at this level succeed at most of the skills on the extended standards of the Minnesota Academic Standards in Science. Given little verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

- Identify multiple ways that common engineered systems benefit daily life

- Identify property characteristics of matter that have undergone a chemical change

- Understand that unseen forces, such as friction or gravity, can change an object's speed or direction

- Classify forces as balanced and unbalanced

- Identify the effects of weathering, erosion, and deposition on landforms over time

- Understand the functions of organs in the respiratory, circulatory, and digestive systems (e.g., lungs, stomach, heart)

- Recognize that the human body may appear healthy although it contains disease-causing organisms

## High School Science MTAS Achievement Level Descriptors

### Does Not Meet the Alternate Achievement Standards

High School

Students at this level succeed at a limited number of the most fundamental skills on the extended standards of the Minnesota Academic Standards in Science. Given extensive verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

- Recognize a scientific experiment
- Identify data within an experiment
- Recognize that animals need to eat food
- Know that an animal can impact its environment
- Distinguish between two different familiar animals
- Understand that plants and animals need water to survive
- Recognize that human activity can impact plants and animals

### Partially Meets the Alternate Achievement Standards

High School

Students at this level succeed at some of the skills on the extended standards of the Minnesota Academic Standards in Science. Given frequent verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

- Identify a scientific hypothesis
- Understand that data can be useful in sharing findings from an experiment
- Know that animals obtain energy by eating food
- Identify the mouth as a structure used for eating food
- Understand that animals may be introduced to an ecosystem
- Match parent organisms to their offspring
- Recognize that human activity can have a positive or negative effect on the environment

### Meets the Alternate Achievement Standards

High School

Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Science. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

- Know that a hypothesis can guide a scientific investigation
- Identify relevant data collection and a conclusion in a scientific experiment
- Understand that plants and animals use different structures to obtain energy
- Recognize that structures used to obtain energy may include mouths for animals and leaves for plants
- Recognize that a new species can change an ecosystem
- Identify traits that are transmitted from parents to offspring
- Know that the ability to get food will affect the survival rate of animals
- Determine risks and benefits of human activity to the environment and the community

Students at this level succeed at most of the skills on the extended standards of the Minnesota Academic Standards in Science. Given little verbal, visual, and/or tactile supports which provide extra context about the task to be completed, the students may demonstrate skills that include:

- Demonstrate that scientific experiments can produce different data and different conclusions
- Identify the different ways that animals and plants obtain energy through the use of specialized structures
- Recognize that the ability to get food, water, and shelter may affect the survival rate of organisms
- Understand how specialized body structures may help organisms survive
- Identify the harmful effect(s) that a new species can have on an ecosystem
- Identify risks and benefits of human activity on the environment