RIT Reference Charts

For Common Core and Science
Measures of Academic Progress® (MAP®) and MAP for Primary Grades (MPG)

Included in this book:
• Reading
• Language Usage
• Mathematics 2 – 5
• Mathematics 6+
• MPG for Reading
• MPG for Mathematics
• Science

NWEA
Northwest Evaluation Association
Partnering to help all kids learn®
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference Chart for Reading</td>
<td>3</td>
</tr>
<tr>
<td>Word Meaning and Vocabulary Knowledge</td>
<td>4</td>
</tr>
<tr>
<td>Literature: Understand and Integrate Key Ideas and Details</td>
<td>5</td>
</tr>
<tr>
<td>Literature: Understand and Interpret Craft and Structure</td>
<td>6</td>
</tr>
<tr>
<td>Informational Texts: Understand and Integrate Key Ideas and Details</td>
<td>7</td>
</tr>
<tr>
<td>Informational Texts: Understand and Interpret Craft and Structure</td>
<td>8</td>
</tr>
<tr>
<td>Reference Chart for Language Usage</td>
<td>9</td>
</tr>
<tr>
<td>Writing: Plan, Organize, Develop, Revise, Research</td>
<td>10</td>
</tr>
<tr>
<td>Language: Understand, Edit for Grammar, Usage</td>
<td>11</td>
</tr>
<tr>
<td>Language: Understand, Edit Mechanics</td>
<td>12</td>
</tr>
<tr>
<td>Reference Chart for Mathematics 2 – 5</td>
<td>13</td>
</tr>
<tr>
<td>Operations and Algebraic Thinking</td>
<td>14</td>
</tr>
<tr>
<td>Numbers and Operations</td>
<td>15</td>
</tr>
<tr>
<td>Measurement and Data</td>
<td>16</td>
</tr>
<tr>
<td>Geometry</td>
<td>17</td>
</tr>
<tr>
<td>Reference Chart for Mathematics 6+</td>
<td>18</td>
</tr>
<tr>
<td>Operations and Algebraic Thinking</td>
<td>19</td>
</tr>
<tr>
<td>The Real and Complex Number Systems</td>
<td>20</td>
</tr>
<tr>
<td>Geometry</td>
<td>21</td>
</tr>
<tr>
<td>Statistics and Probability</td>
<td>22</td>
</tr>
<tr>
<td>Reference Chart for MPG Reading</td>
<td>23</td>
</tr>
<tr>
<td>Literature and Informational</td>
<td>24</td>
</tr>
<tr>
<td>Vocabulary Use and Functions</td>
<td>25</td>
</tr>
<tr>
<td>Foundational Skills</td>
<td>26</td>
</tr>
<tr>
<td>Language and Writing</td>
<td>27</td>
</tr>
<tr>
<td>Reference Chart for MPG Mathematics</td>
<td>28</td>
</tr>
<tr>
<td>Operations and Algebraic Thinking</td>
<td>29</td>
</tr>
<tr>
<td>Number and Operations</td>
<td>30</td>
</tr>
<tr>
<td>Measurement and Data</td>
<td>31</td>
</tr>
<tr>
<td>Geometry</td>
<td>32</td>
</tr>
<tr>
<td>Reference Chart for Science</td>
<td>33</td>
</tr>
<tr>
<td>Physical Sciences</td>
<td>34</td>
</tr>
<tr>
<td>Life Sciences</td>
<td>35</td>
</tr>
<tr>
<td>Earth and Space Sciences</td>
<td>36</td>
</tr>
</tbody>
</table>
MAP tests produce scores that make it possible to monitor student growth from year to year along developmental curriculum scales or continua. The chart inside shows examples of the kinds of work students can do at various points along the MAP RIT scale, assuming they have been exposed to content. This type of information is helpful in supporting appropriate instruction.

Please note that each subject area has a unique alignment to the RIT scale. As a result, scores between subjects are not equivalent.

How to use the charts:

1. Find the column containing the student’s score for a particular subject. For example, if the student’s score in “Word Meaning and Vocabulary Knowledge” is 188, refer to the column labeled 181-190.

2. Read the column(s) from left to right to locate a sample test question for a given reporting area, such as “Word Meaning and Vocabulary Knowledge.” A student’s score suggests that, currently, he or she is likely to get about half of the questions of this difficulty correct.

3. Now look at the questions in the column(s) to the left, and higher on the page. The student is likely to get most of these correct, assuming he or she has been instructed in these skills and concepts.

4. The questions further down the page will probably require new learning on the student’s part.

Please note:

Test items in this booklet are sample items, and many are not calibrated or field-tested. For purposes of this document, RIT scale alignment is an approximation.

Some passages have been truncated due to space considerations.
Word Meaning and Vocabulary Knowledge

Students can decode words and recognize and understand word relationships and structures. They can use context cues to decipher word meaning.

Read the words.

ball
doll
puzzle
top

To which group do these words belong?
1. animals
2. colors
3. places
✓ 4. toys

Read the sentences.

Jackie couldn’t believe how much fun she had on the field trip. She kept replaying the day’s events in her mind on the bus ride back to school.

In the word “replaying,” what does the prefix re- mean?
1. not
2. two
✓ 3. again
4. after

Read the sentences.

Lightning struck the trunk of the lilac tree. Please put the limb of old costumes in the attic.

Which word will fit in both spaces?
✓ 1. trunk
2. branch
3. limb
4. root

Read the paragraph and dictionary entries.

Mrs. Franz had just given her students a piece of clay the size of her hand. She told them to create something. (passage continues)

scuba (skoo-buh) n. equipment used to breathe under water
scullery (skuhl-er-ee) n. a small room near the kitchen
sculpture (skuhlp-chur) n. an object created by carving or molding
scum (skuhm) n. a covering on the surface of a liquid

Based on the information in the paragraph, what is the meaning of the word sculpture?
1. slimy film
2. large pantry
✓ 3. piece of art
4. swimming gear

Read the sentence.

Although the storm outside was ferocious, Nate left the comfort of the cabin and trudged toward home.

Which word best matches the connotative meaning of “ferocious” as it is used in the sentence?
1. barbaric
2. inhuman
✓ 3. intense
4. untamed

Read the sentence and dictionary entry.

The lives saved when the volcano exploded vindicated the expensive early warning system.

vindicate (vin-di-keyt) v.
1. to clear from an accusation
2. to justify by evidence or argument
3. to defend against opposition
4. to claim for oneself or another

Which definition of vindicate is used in the sentence above?
1. definition 1
2. definition 2
✓ 3. definition 3
4. definition 4

Based on your knowledge of Latin roots, what is the meaning of “ambidextrous”?
1. lives on land and in water
2. walks quickly
3. before the flood
✓ 4. can use both hands equally
Literature: Understand and Integrate Key Ideas and Details

Students can read and comprehend literature, make inferences and predictions, and draw conclusions. They can determine key ideas, analyze the development of themes and ideas, and summarize.

下面161

阅读本文。

母亲已经准备好。她有彩带和气球。她烤了一个蛋糕。她邀请桑迪的朋友。她让他们不要告诉桑迪。桑迪会从学校回家。她的朋友们会大声呼喊当她打开灯的时候！

桑迪的妈妈在计划什么？
1. 桑迪的第一天在学校
2. 野餐在后院
✓ 3. 桑迪的惊喜派对
4. 一次去面包店

161-170

阅读本文。

我迫不及待地想开始寒假！每一天都像节日一样！我喜欢和朋友们打雪仗，在院子里堆雪人。

作者对寒假的感受是怎样的？
1. 平静
2. 兴奋
✓ 3. 紧张
4. 累

171-180

阅读本文。

戈登喜欢去他叔叔和阿姨在佛蒙特的家。他每年夏天都去拜访他们。他们住在湖上的一艘房船上。

本文的主要论点是什么？
1. 河流支持了河岸的生命。
2. 逆流而上是很困难的。
✓ 3. 河流从海洋流到海洋是不变的。
4. 地球将继续绕太阳旋转。
**Literature: Understand and Interpret Craft and Structure**

Students can analyze the structure of literary texts and evaluate the author’s craft and purpose. They can interpret figurative language and analyze literary devices.

<table>
<thead>
<tr>
<th>161-170</th>
<th>171-180</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Read the poem.</strong></td>
<td><strong>Read the passage.</strong></td>
</tr>
<tr>
<td><strong>The Movie</strong></td>
<td>Dave and Mike had a great time sledding. They pulled their sleds up the big hill and went down face-first. (passage continues)</td>
</tr>
<tr>
<td>The movie theater is cool and dark. I can’t wait for the movie to start. (poem continues)</td>
<td><strong>What did Mike and Dave do right after playing outside?</strong></td>
</tr>
<tr>
<td><strong>Which word tells how the theater sounds?</strong></td>
<td>1. They pulled their sleds up the big hill.</td>
</tr>
<tr>
<td>1. cool</td>
<td>2. They raced down the hill.</td>
</tr>
<tr>
<td>2. dark</td>
<td>✓ 3. They had grilled cheese and soup.</td>
</tr>
<tr>
<td>3. soft</td>
<td>4. They fell asleep on the couch.</td>
</tr>
<tr>
<td>✓ 4. loud</td>
<td><strong>Read the passage.</strong></td>
</tr>
<tr>
<td><strong>Read the passage.</strong></td>
<td>The clouds lifted, and the pilot sighted the tower of the Jefferson City airport. He had already radioed ahead that he was arriving. (passage continues)</td>
</tr>
<tr>
<td>Laura’s teacher asked to see her science project. “But Mrs. Thompson, I forgot it was due today!” Laura said. Then she asked if she could call her mom. “Mom, can you bring my science project to school? It’s due today!” She listened to her mother for a moment. (passage continues)</td>
<td><strong>What is the best title for this passage?</strong></td>
</tr>
<tr>
<td><strong>How do readers learn about Laura?</strong></td>
<td>1. Jefferson City Airport</td>
</tr>
<tr>
<td>1. from what other characters say</td>
<td>2. One Cloudy Night</td>
</tr>
<tr>
<td>✓ 2. from what she says to others</td>
<td>✓ 3. A Safe Landing</td>
</tr>
<tr>
<td>3. from what she looks like</td>
<td>4. A Pilot’s Life</td>
</tr>
<tr>
<td>4. from descriptions of her feelings</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>181-190</th>
<th>191-200</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Read the story.</strong></td>
<td><strong>Read the passage.</strong></td>
</tr>
<tr>
<td>Maria ate a big bowl of cereal. After breakfast, Maria put her book in her backpack. (passage continues)</td>
<td>The clouds lifted, and the pilot sighted the tower of the Jefferson City airport. He had already radioed ahead that he was arriving. (passage continues)</td>
</tr>
<tr>
<td><strong>What did Maria do first?</strong></td>
<td><strong>What did Mike and Dave do right after playing outside?</strong></td>
</tr>
<tr>
<td>✓ 1. eat her breakfast</td>
<td>1. They pulled their sleds up the big hill.</td>
</tr>
<tr>
<td>2. put her book in her backpack</td>
<td>2. They raced down the hill.</td>
</tr>
<tr>
<td>3. put on her coat</td>
<td>✓ 3. They had grilled cheese and soup.</td>
</tr>
<tr>
<td>4. walk to the bus stop</td>
<td>4. They fell asleep on the couch.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>211-220</th>
<th>221-230</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Read the passage.</strong></td>
<td><strong>Read the poem.</strong></td>
</tr>
<tr>
<td>Many years ago, a young man named Takoda decided to go on foot to Dark Mountain, a three-day journey from his village. Two days into his journey, he paused for nourishment in a narrow valley. (passage continues)</td>
<td>It sifts from leaden sieves, it powders all the wood, it fills with alabaster wool The wrinkles of the road. (poem continues)</td>
</tr>
<tr>
<td><strong>How does the setting contribute to Takoda’s main problem in the story?</strong></td>
<td>(&quot;The Snow&quot; by Emily Dickinson)</td>
</tr>
<tr>
<td>1. He is unable to see clearly through dust from the valley floor.</td>
<td><strong>How does the use of alliteration in line 13 build meaning in the poem?</strong></td>
</tr>
<tr>
<td>2. He is unable to find shelter on the valley floor from threatening weather.</td>
<td>1. It highlights the eeriness of the snow’s frosty appearance.</td>
</tr>
<tr>
<td>3. The valley does not provide him with the nourishment he needs for his journey.</td>
<td>2. It emphasizes the images of destruction caused by the snow.</td>
</tr>
<tr>
<td>✓ 4. The valley does not provide him with an easy way to avoid the buffalo stampede.</td>
<td>✓ 3. It accentuates the completeness of the snow’s coverage, layer by layer.</td>
</tr>
<tr>
<td><strong>Read the passage.</strong></td>
<td>4. It contrasts the quietness of the fallen snow with the sounds of harvest.</td>
</tr>
<tr>
<td>Hope is the thing with feathers That perches in the soul, And sings the tune without the words, And never stops at all. (poem continues)</td>
<td>(&quot;Hope&quot; by Emily Dickinson)</td>
</tr>
<tr>
<td><strong>Which statement best expresses the meaning of the extended metaphor that compares hope to a bird throughout the poem?</strong></td>
<td>✓ 1. Hope is a constant presence and gives people comfort.</td>
</tr>
<tr>
<td>✓ 1. Hope is the thing with feathers</td>
<td>2. Hope flies away like a bird during storms and difficult times.</td>
</tr>
<tr>
<td>That perches in the soul,</td>
<td>3. Hope is demanding, like a bird that constantly needs to be cared for.</td>
</tr>
<tr>
<td>And sings the tune without the words,</td>
<td>4. Hope tries to sing songs that are uplifting, but forgets the words to them.</td>
</tr>
<tr>
<td>And never stops at all. (poem continues)</td>
<td>(&quot;Hope&quot; by Emily Dickinson)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>above 230</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Read the passage.</strong></td>
<td><strong>Read the poem.</strong></td>
</tr>
<tr>
<td>It sifts from leaden sieves, it powders all the wood, it fills with alabaster wool The wrinkles of the road. (poem continues)</td>
<td>Hope is the thing with feathers</td>
</tr>
<tr>
<td>(&quot;The Snow&quot; by Emily Dickinson)</td>
<td>That perches in the soul,</td>
</tr>
<tr>
<td><strong>How does the use of alliteration in line 13 build meaning in the poem?</strong></td>
<td>And sings the tune without the words,</td>
</tr>
<tr>
<td>1. It highlights the eeriness of the snow’s frosty appearance.</td>
<td>And never stops at all. (poem continues)</td>
</tr>
<tr>
<td>2. It emphasizes the images of destruction caused by the snow.</td>
<td>(&quot;Hope&quot; by Emily Dickinson)</td>
</tr>
<tr>
<td>✓ 3. It accentuates the completeness of the snow’s coverage, layer by layer.</td>
<td><strong>Which statement best expresses the meaning of the extended metaphor that compares hope to a bird throughout the poem?</strong></td>
</tr>
<tr>
<td>4. It contrasts the quietness of the fallen snow with the sounds of harvest.</td>
<td>✓ 1. Hope is a constant presence and gives people comfort.</td>
</tr>
</tbody>
</table>

---

**READING**

LITERATURE: UNDERSTAND AND INTERPRET CRAFT AND STRUCTURE

---

**Reading the sentences.**

Scott opened his eyes and looked at the clock. He pulled the blankets over his head to keep the sun out. He yawned and closed his eyes. He just wanted to go back to sleep.

**What does the author want you to think about Scott?**

1. He is lazy.
2. He is tired. **✓**
3. He is hungry.
4. He is scared.

---

**Reading the story.**

Maria ate a big bowl of cereal. After breakfast, Maria put her book in her backpack.

**What did Maria do first?**

1. eat her breakfast
2. put her book in her backpack
3. put on her coat
4. walk to the bus stop

---

**Reading the passage.**

Laura’s teacher asked to see her science project. “But Mrs. Thompson, I forgot it was due today!” Laura said. Then she asked if she could call her mom. “Mom, can you bring my science project to school? It’s due today!” She listened to her mother for a moment.

**How do readers learn about Laura?**

1. from what other characters say
2. from what she says to others **✓**
3. from what she looks like
4. from descriptions of her feelings

---

**Reading the passage.**

The clouds lifted, and the pilot sighted the tower of the Jefferson City airport. He had already radioed ahead that he was arriving.

**What is the best title for this passage?**

1. Jefferson City Airport
2. One Cloudy Night
3. A Safe Landing **✓**
4. A Pilot’s Life

---

**Reading the passage.**

Many years ago, a young man named Takoda decided to go on foot to Dark Mountain, a three-day journey from his village. Two days into his journey, he paused for nourishment in a narrow valley.

**How does the setting contribute to Takoda’s main problem in the story?**

1. He is unable to see clearly through dust from the valley floor.
2. He is unable to find shelter on the valley floor from threatening weather.
3. The valley does not provide him with the nourishment he needs for his journey.
4. **✓** The valley does not provide him with an easy way to avoid the buffalo stampede.

---

**Reading the poem.**

It sifts from leaden sieves, it powders all the wood, it fills with alabaster wool The wrinkles of the road. (poem continues) ("The Snow" by Emily Dickinson)

**How does the use of alliteration in line 13 build meaning in the poem?**

1. It highlights the eeriness of the snow’s frosty appearance. **✓**
2. It emphasizes the images of destruction caused by the snow.
3. It accentuates the completeness of the snow’s coverage, layer by layer.
4. It contrasts the quietness of the fallen snow with the sounds of harvest.
Informational Texts: Understand and Integrate Key Ideas and Details

Students can read and comprehend literary texts, making inferences and predictions, drawing conclusions, and citing textual support. They can determine central ideas, analyze the development of arguments, and summarize.

**161-170**

Read the passage.

Many kinds of dogs live in the world. Some have been around for a long time. (passage continues)

What do Mudis like?

1. other dogs
2. having work to do
3. living in the city
4. sleeping all day

What type of weather is needed to make mud pies?

✓ 1. a sunny day
2. a rainy day
3. a snowy day
4. a cloudy day

**171-180**

Read the paragraph.

A hen lays about one egg a day. A chick takes three weeks to be born from an egg. (passage continues)

When do chicks start peeping?

1. after one week
2. after two weeks
✓ 3. after three weeks
4. after four weeks

**181-190**

Read the passages.

**Passage 1**

Cotton is a type of plant. The cotton plant grows from seeds. Then the plants grow flowers. After the flowers fall off, green pods, or bolls, are left. The bolls dry out in the sun. They burst open. White fluffy cotton pops out.

**Passage 2**

Cotton is a soft cloth that comes from a plant. White bolls of cotton are washed and stretched into long strings. The strings are twisted together to make a thread. (passage continues)

What is the main idea of both paragraphs?

1. plants
2. clothes
✓ 3. cotton
4. flowers

**191-200**

Read the directions.

Making mud pies is fun. Find some nice sticky mud. Shape it into little pies. Set the pies in the warm sun to dry.

**201-210**

Read the paragraph.

Weasels are hunters. They prey on mice, rats, insects, and birds. They will attack larger animals too, such as rabbits and chickens. (passage continues)

What does the weasel do when it gets more food than it needs?

1. It eats until it is sick.
2. It shares the food with others.
✓ 3. It stores the food for later.
4. It lets the food go to waste.

**211-220**

Read the passage.

More Than a Writer

Many people today use bifocals, eyeglasses that aid people’s vision for objects both near and far away. Some people use cast-iron wood-burning stoves to heat their homes. (passage continues)

Which aspect of the passage best supports the idea that Franklin was a creative visionary?

1. the danger associated with Franklin’s famous kite-flying experiment
2. the example of the wide range of inventions that Franklin developed
✓ 3. the mention of Franklin’s role in writing the Declaration of Independence
4. the similarities between today’s bifocals and the bifocals that Franklin invented

**221-230**

Read the passage.

We observe today not a victory of party but a celebration of freedom—symbolizing an end as well as a beginning—signifying renewal as well as change. For I have sworn before you and Almighty God the same solemn oath our forbears prescribed nearly a century and three-quarters ago. (passage continues)

Which statement best describes the main idea of this passage?

1. The past generations have secured freedom for the future.
✓ 2. The responsibilities of freedom rest with the individual.
3. Global alliances are the key to freedom for all people.
4. Well-equipped armies will fight to defend freedom.

**above 230**

Read the passage.

The efficiency of a book is like that of a man, in one important respect: its attitude toward its subject is the first source of its power. A book may be full of good ideas well expressed, but if its writer views his subject from the wrong angle even his excellent advice may prove to be ineffective. (passage continues)

Which conclusion about becoming an effective speaker can be drawn from the passage?

1. Effective speaking is the result of study followed by earnest practice.
2. Effective speaking requires training in and adherence to a specific set of rules
✓ 3. Effective speaking requires self-discipline and personal conviction about the topic.
4. Effective speaking is the result of practicing the speeches and styles of noted speakers.
Informational Texts: Understand and Interpret Craft and Structure

Students can analyze the structure of texts and evaluate a text for bias and for the quality of claims and evidence. Students can evaluate the author’s craft, determining author’s point of view and purpose.

Read the chart.

<table>
<thead>
<tr>
<th>Favorite Sports</th>
<th>Baseball</th>
<th>Basketball</th>
<th>Soccer</th>
<th>Swimming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max</td>
<td>Samuel</td>
<td>Sarah</td>
<td>Addison</td>
<td></td>
</tr>
<tr>
<td>Neva</td>
<td>Jessica</td>
<td>Brandon</td>
<td>Coley</td>
<td></td>
</tr>
</tbody>
</table>

Which sport do the most children like?

1. baseball
2. basketball
✓ 3. soccer
4. swimming

What types of music have the most in common?

1. country and jazz
✓ 2. country and rock
3. jazz and pop
4. pop and rock

Which organization structure is used in this passage?

1. sequence of events
2. order of importance
3. cause and effect
✓ 4. compare and contrast

161-200

Read the passage.

There are many differences between the ancient Olympics and the Olympics of today. In ancient times, the games were held only during the summer, but today there are summer and winter Olympic Games. (passage continues)

Which organization structure is used in this passage?

1. sequence of events
2. order of importance
3. cause and effect
✓ 4. compare and contrast

171-180

Read the report excerpt.

Changes in climate have also been manifested in altered precipitation patterns. Over the last century, the amount of precipitation has increased significantly across eastern parts of North America. (passage continues)

Which feature of this text most assures the validity of the information?

✓ 1. the use of citations
2. the vocabulary
3. the use of percents
4. the author’s tone

181-190

Read the passage.

The best place to go on vacation is Florida. There are beautiful beaches, luxury hotels, good restaurants, and interesting shops. (passage continues)

What is the author’s opinion of Florida?

1. The weather is too hot.
2. Florida has no variety.
3. Only boaters will enjoy Florida.
✓ 4. Florida is a great place to visit.

191-200

Read the chart.

<table>
<thead>
<tr>
<th>Music</th>
<th>Piano</th>
<th>Drum</th>
<th>Base</th>
<th>Guitar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pop</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rock</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What types of music have the most in common?

1. country and jazz
✓ 2. country and rock
3. jazz and pop
4. pop and rock

201-210

Read the paragraphs.

Review 1

Happy Birthday, Maudie is a delightful movie. The characters are believable, and the plot is a tender love story. (passage continues)

Based on the descriptions in the two reviews, on which topic are the two reviewers most likely to agree?

1. the main character’s personality
2. the quality of the plot
✓ 3. the details of the setting
4. the overall quality of the movie

211-230

Read the passage written by a company that organizes scientific research into a database.

Our Mission: Our database of more than 3,000 articles of documented investigations is an easy-to-use tool for scientific research. Users may look for a general topic or narrow their search through the use of three topic code parameters. (passage continues)

How does the chart complement the text?

1. It summarizes the text.
✓ 2. It provides detail not in the text.
3. It serves to contrast information in the text.
4. It provides transition between the two parts of the text.
MAP tests produce scores that make it possible to monitor student growth from year to year along developmental curriculum scales or continua. The chart inside shows examples of the kinds of work students can do at various points along the MAP RIT scale, assuming they have been exposed to content. This type of information is helpful in supporting appropriate instruction.

Please note that each subject area has a unique alignment to the RIT scale. As a result, scores between subjects are not equivalent.

How to use the charts:

1. Find the column containing the student’s score for a particular subject. For example, if the student’s score is 188 in “Language: Understand, Edit Mechanics,” refer to the column labeled 181-190.

2. Read the column(s) from left to right to locate a sample test question for a given reporting area, such as “Language: Understand, Edit Mechanics.” A student’s score suggests that, currently, he or she is likely to get about half of the questions of this difficulty correct.

3. Now look at the questions in the column(s) to the left, and higher on the page. The student is likely to get most of these correct, assuming he or she has been instructed in these skills and concepts.

4. The questions further down the page will probably require new learning on the student’s part.

Please note:

Test items in this booklet are sample items, and many are not calibrated or field-tested. For purposes of this document, RIT scale alignment is an approximation.

Some passages have been truncated due to space considerations.
Writing: Plan, Organize, Develop, Revise, Research

Students use skills to plan, develop, and revise writing and research.

below 161

161-170

Which group of words would be best to use to tell about the Moon?
1. soft, small, blue
2. close, green, cold
✓ 3. white, round, full
4. wet, black, square

above 230

Your class just finished studying rivers. Your teacher has assigned you to write a research paper that further explores rivers.

Which of the following would be the best research question?
1. What is your favorite river?
2. How are the Nile and Amazon rivers different?
3. Where is the world’s longest river?
4. How many times has the Nile River flooded?

Which revision of the underlined sentences best provides appropriate transition?
1. In addition to that, I knew I needed to stay on the front for, about a minute, but my legs drained immediately, and I began gasping in the humid air.
2. In either case, I knew I needed to stay on the front for, about a minute, and my legs drained immediately, and I began gasping in the humid air.
3. Eventually, I knew I needed to stay on the front for, about a minute, my legs drained immediately, and I began gasping in the humid air.
✓ 4. Although I knew I needed to stay on the front for, about a minute, my legs drained immediately, and I began gasping in the humid air.
Language: Understand, Edit for Grammar, Usage

Students understand the conventions of grammar and usage.

<table>
<thead>
<tr>
<th>Choose the missing word.</th>
<th>Choose the missing word.</th>
<th>Click on the word in each box that correctly completes each sentence.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The dog ______ in the house.</td>
<td>Can you watch the movie with ______?</td>
<td>The ice cream truck comes to our apartments every Friday. My mom says buying ice cream from the ice cream truck was one of her favorite parts of childhood. We run outside when we hear the truck playing its song. Mom buys an ice cream sandwich, and we split it in half. Then we sit in the sunshine to eat our ice cream sandwich. It fills us both with happier, happiness to share an ice cream.</td>
</tr>
<tr>
<td>1. am</td>
<td>1. we</td>
<td>✓ 4. I</td>
</tr>
<tr>
<td>✓ 2. is</td>
<td>2. us</td>
<td>3. he</td>
</tr>
<tr>
<td>3. are</td>
<td>4. I</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Read the sentence.</th>
<th>Read the sentence.</th>
<th>Read the sentence fragment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>My mom wakes me up __________ on weekdays than on the weekend.</td>
<td>The student wrote a report __________ James Madison, the fourth president.</td>
<td>Each penguin in the pool.</td>
</tr>
<tr>
<td>Which word correctly completes the sentence?</td>
<td>Which preposition best completes the sentence?</td>
<td>Which is a complete sentence?</td>
</tr>
<tr>
<td>1. early</td>
<td>1. in</td>
<td>1. Each penguin in the deep pool.</td>
</tr>
<tr>
<td>✓ 2. earlier</td>
<td>2. from</td>
<td>2. Each and every penguin in the pool.</td>
</tr>
<tr>
<td>3. more early</td>
<td>✓ 3. about</td>
<td>✓ 3. Each penguin in the pool swam.</td>
</tr>
<tr>
<td>4. most early</td>
<td>4. with</td>
<td>4. Each little penguin in the deep pool.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Click on the word in the parentheses that correctly completes each sentence.</th>
<th>Read the draft of Talia’s paragraph.</th>
<th>Which sentence shows clear pronoun-antecedent agreement?</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have a sister (who, which) is training to be an airline pilot.</td>
<td>The tallest mountain in the world is Mount Everest. Its elevation is 29,029 feet. It was summited in 1953 for the first time. Talia wants to combine these statements into one sentence. Which best combines these sentences?</td>
<td>1. We unpacked our books from the boxes and then returned them to the office.</td>
</tr>
<tr>
<td>I do not like riding roller coasters (which, that) flip upside down.</td>
<td>1. The tallest mountain, at 29,029, feet, in the world is Mount Everest and it was first summited in 1953.</td>
<td>2. As soon as the monkeys left their cages, the janitors cleaned them.</td>
</tr>
<tr>
<td>My brother is the only person on the team (who, which) scored a goal.</td>
<td>2. The tallest mountain in the world, Mount Everest (29,029 feet elevation), first successfully was summited in 1953. ✓ 3. Mount Everest, the tallest mountain in the world with an elevation of 29,029 feet, was summited in 1953 for the first time.</td>
<td>3. If anybody wants to play professional basketball, you have to practice the fundamentals.</td>
</tr>
<tr>
<td>My family took me to the ocean, (which, that) is where I learned to swim.</td>
<td>✓ 4. First successfully summited in 1953, the tallest mountain, Mount Everest, in the world has an elevation of 29,029 feet.</td>
<td>✓ 4. For English class, the students had to memorize a monologue by their favorite playwright.</td>
</tr>
</tbody>
</table>
Which sentence is punctuated correctly?

1. Do flowers bloom in the spring!
2. Do flowers bloom in the spring?
3. Do flowers bloom in the spring,
4. Do flowers bloom in the spring.

✓ 2. Do flowers bloom in the spring?

Click on the word in the sentence that should begin with a capital letter.

My art teacher gave the note to Mrs. Begay.

1. I plan to spend Groundhog Day looking for holes in the park with my friend Doug.
2. I plan to spend Groundhog Day looking for holes in the park with my friend Doug.
3. I plan to spend groundhog Day looking for holes in the park with my friend Doug.
4. I plan to spend Groundhog Day looking for holes in the park with my friend Doug.

Read the sentence.

I plan to spend groundhog Day looking for holes in the park with my friend Doug.

Which word in the sentence should begin with a capital letter?

1. plan
2. groundhog
✓ 2. groundhog
3. park
4. friend

What is the correct spelling for more than one cherry?

1. cherrys
2. cherries
✓ 2. cherries
3. cherrys
4. cherryes

Which sentence correctly uses quotation marks?

✓ 1. "Mom said, "Brush your teeth before bed."
2. "What did you say? I asked."
3. "My sister said, I need a bedtime story."
4. "Mom," I asked, can I have a glass of water?"

Which sentence correctly uses quotation marks?

✓ 1. "Mom said, "Brush your teeth before bed."
2. "What did you say? I asked."
3. "My sister said, I need a bedtime story."
4. "Mom," I asked, can I have a glass of water?"

Drag the comma to the correct place in the sentence with dialogue.

Lily studied for her science test all evening. "I think I will do well on my test today." Lily told her mother the next morning.

Which underlined word should be capitalized?

✓ 1. southwest
2. north
3. northern
4. northeast

Proofread Carla’s paragraph.

I live in an area known as the great southwest—in Taos, New Mexico. Taos is a town well known for its art, history, and recreation. Located just north of the Santa Fe National Forest, Taos offers visitors the chance to ski during the winter months. There are also several museums whose goal it is to preserve artwork from the northern part of New Mexico. There are even more options for exploration nearby; Taos is only 40 miles northeast of Santa Fe, the capital of New Mexico.

Which underlined word should be capitalized?

✓ 1. southwest
2. north
3. northern
4. northeast
MAP tests produce scores that make it possible to monitor student growth from year to year along developmental curriculum scales or continua. The chart inside shows examples of the kinds of work students can do at various points along the MAP RIT scale, assuming they have been exposed to content. This type of information is helpful in supporting appropriate instruction.

Please note that each subject area has a unique alignment to the RIT scale. As a result, scores between subjects are not equivalent.

**How to use the charts:**

1. Find the column containing the student’s score for a particular subject. For example, if the student’s score in “Geometry” is 188, refer to the column labeled 181-190.

2. Read the column(s) from left to right to locate a sample test question for a given reporting area, such as “Geometry.” A student’s score suggests that, currently, he or she is likely to get about half of the questions of this difficulty correct.

3. Now look at the questions in the column(s) to the left, and higher on the page. The student is likely to get most of these correct, assuming he or she has been instructed in these skills and concepts.

4. The questions further down the page will probably require new learning on the student’s part.

**Please note:**

Test items in this booklet are sample items, and many are not calibrated or field-tested. For purposes of this document, RIT scale alignment is an approximation.
Operations and Algebraic Thinking

Students can represent and solve problems involving the four operations, understand and apply properties of operations, generate and analyze patterns, and write and interpret numerical expressions.

Operations and Algebraic Thinking

Which set contains all the factors of 20?

A. (5, 10, 15, 20)
B. (2, 4, 5, 10)
✓C. (1, 2, 4, 5, 10, 20)

There are 8 hot dog buns in a package. Shay wants to buy the LEAST number of packages to have enough buns for 50 hot dogs.

Which statement is true?

A. Shay should buy 6 packages. She will have exactly the correct number of buns.
B. Shay should buy 6 packages. She will have 2 buns left over.
C. Shay should buy 7 packages. She will have exactly the correct number of buns.
✓D. Shay should buy 7 packages. She will have 6 buns left over.

Click on all the sets that have an odd number of basketballs.

Two children will share the dolls equally. How many dolls will each get?

A. 1
B. 2
✓C. 4

Jill sold bags of raisins. The first day she sold 6 bags, and the second day she sold 12. On the third day she sold 18.

If Jill continues to sell bags following the same pattern, how many bags will she sell on the sixth day?

A. 54
B. 48
✓C. 36

Which set contains all the factors of 20?

A. (5, 10, 15, 20)
B. (2, 4, 5, 10)
✓C. (1, 2, 4, 5, 10, 20)

What is the value of the expression?

A. 20
B. 30
✓C. 35
D. 38
E. 58
Numbers and Operations

Students understand the place value system by counting, representing, comparing, rounding, and performing operations with multidigit whole numbers, fractions, and decimals.

A. 31
B. 37
C. 71
D. 97
E. 98

How many?
A. 4
✓B. 5
C. 6
D. 7
E. 8

What is the product?
A. 30
B. 65
✓C. 300
D. 365

A. 34
B. 42
✓C. 43
D. 53
E. 155

99
- 56

A. 34
B. 42
✓C. 43
D. 53
E. 155

60
× 5

A. 30
B. 65
✓C. 300
D. 365

5
7
3
7

A. 4\frac{1}{7}
B. 2
✓C. 2\frac{2}{7}
D. 0
E. 7

0.32 ÷ 8 =

A. 4.3
B. 0.15
✓C. 0.04
D. 0.4
E. 43.75

Drag the numbers to the boxes to make two different fractions equal to \(\frac{1}{3}\).
Measurement and Data
Students understand and solve measurement problems involving length, mass, liquid volume, time, money, area, perimeter, volume, and angle. They can generate, represent, and interpret data.

The pencil is about how many centimeters long?
A. 4 cm
B. 5 cm
C. 6 cm
D. 7 cm
✓E. 8 cm

Who has the most candy?
A. Liz
B. Ari
C. Cam
D. Lee
E. Cleo

What is the area of the figure?
A. 18 square units
B. 9 square units
C. 20 square units
D. 16 square units
E. 5 square units

Drag the squares to make a bar graph of the data.

What is the perimeter of this rectangle?
A. 12 inches
B. 20 inches
C. 144 inches
D. 80 inches
E. 36 inches

The list shows how students in a class spent free time.
4 students made art.
2 students played with blocks.
5 students read books.
3 students completed puzzles.

4 yards =
A. 16 feet
B. 20 feet
C. 144 inches
D. 80 inches
E. 36 inches

Regina needs 2 1/2 pounds of fertilizer for her plants. How many ounces is 2 1/2 pounds?
A. 16 ounces
B. 20 ounces
C. 30 ounces
D. 40 ounces
E. 48 ounces
Geometry

Students understand and reason with geometric concepts by identifying, describing, creating, and classifying two- and three-dimensional figures. They can solve mathematical problems by graphing points on the coordinate plane.

Which shape does NOT have any corners?

A.  
B.  
C.  
D.  
E.  

Which of these shapes is a triangle?

A.  
B.  
C.  
D.  
E.  

Which shape has symmetry?

A.  
B.  
C.  
D.  
E.  

Which figures show a line of symmetry?

A. 1, 4, and 5  
B. 2, 4, and 5  
C. 4 and 5  
D. 1 and 4  
E. 2, 3, and 4

Which statement about rectangles is true?

A. All rectangles are squares.  
B. All rectangles are trapezoids.  
C. All rectangles are rhombuses.  
D. All rectangles are parallelograms.  
E. All rectangles are parallelograms.

Which shape is a parallelogram?

A.  
B.  
C.  
D.  
E.  

Click on all the obtuse angles.

171-180
MAP tests produce scores that make it possible to monitor student growth from year to year along developmental curriculum scales or continua. The chart inside shows examples of the kinds of work students can do at various points along the MAP RIT scale, assuming they have been exposed to content. This type of information is helpful in supporting appropriate instruction.

Please note that each subject area has a unique alignment to the RIT scale. As a result, scores between subjects are not equivalent.

**How to use the charts:**

1. Find the column containing the student’s score for a particular subject. For example, if the student’s score in “Geometry” is 188, refer to the column labeled 181-190.

2. Read the column(s) from left to right to locate a sample test question for a given reporting area, such as “Geometry.” A student’s score suggests that, currently, he or she is likely to get about half of the questions of this difficulty correct.

3. Now look at the questions in the column(s) to the left, and higher on the page. The student is likely to get most of these correct, assuming he or she has been instructed in these skills and concepts.

4. The questions further down the page will probably require new learning on the student’s part.

**Please note:**

Test items in this booklet are sample items, and many are not calibrated or field-tested. For purposes of this document, RIT scale alignment is an approximation.
Operations and Algebraic Thinking

Students can apply and extend previous understandings of arithmetic to algebraic expressions, equations, and inequalities. They can model relationships between quantities using functions and compare, interpret, and build functions in different representations.

201-210

Simplify.

$5 \times (2 + 3^2) - 1$

A. 12
✓B. 15
C. 17
D. 29
E. 99

If $6n = 102$, $n$ equals

A. 12.
✓B. 17.
C. 108.
D. 198.
E. 612.

211-220

Evaluate $gh - b$ if $g = 4$, $h = 9$, $b = 12$.

A. 48
B. 37
C. 25
✓D. 24
E. 1

221-230

Evaluate $gh - b$ if $g = 4$, $h = 9$, $b = 12$.

A. 48
B. 37
C. 25
✓D. 24
E. 1

231-240

Drag a number into each box to represent 64 using exponents.

2 3 4 16 32 60

241-250

Ken works as a salesperson in a local electronics store. He earns $200 each week plus 6% commission on his total sales.

Which equation correctly represents Ken’s weekly earnings, $E$, based on $s$, his total sales?

A. $E = 0.06s + $200
✓B. $E = 6s + $200
C. $E = 0.06s + $200$
D. $E = 6s($200)

above 250

Which expression is equivalent to $\frac{8^8}{8^7}$?

A. $8^2$
✓B. $8^1$
C. $8^3$
D. $8^4$
E. $8^5$
The Real and Complex Number Systems
Students can apply and extend previous understandings of operations to the real and complex number systems by solving problems involving ratio, rate, proportion, rational numbers, irrational numbers, complex numbers, and the coordinate plane.

Which is the simplified form of $2 + 3 \sqrt{-12}$?

A. $8\sqrt{3}$
B. $2 + 6i\sqrt{3}$
C. $-i\sqrt{12}$
D. $2 - 3i\sqrt{12}$
E. $-4i\sqrt{12}$

A $30.00$ pair of jeans is discounted $20\%$. If sales tax is $5\%$, what will be the final price for the jeans?

A. $22.80$
B. $24.00$
C. $24.20$
D. $25.20$
E. $28.35$

Which is closest to $\sqrt{10}$?

A. $3.0$
B. $3.2$
C. $3.5$
D. $5.0$

The sign shows the cost of a bag of apples at Hank’s Fruit Stand.

$20.40$ for a bag of 24 apples

What is the unit price?

A. $0.85$ per apple
B. $0.90$ per apple
C. $1.10$ per apple
D. $1.18$ per apple

Which number line shows how to find the sum of $-8 + (-2)$?

A.
B. $\sqrt{B}$.
C.
D.

Move the point to the coordinates (-5, 6).

The sign shows the cost of a bag of apples at Hank’s Fruit Stand.

$20.40$ for a bag of 24 apples

What is the unit price?

A. $0.85$ per apple
B. $0.90$ per apple
C. $1.10$ per apple
D. $1.18$ per apple

Which is closest to $\sqrt{10}$?

A. $3.0$
B. $3.2$
C. $3.5$
D. $5.0$

A $30.00$ pair of jeans is discounted $20\%$. If sales tax is $5\%$, what will be the final price for the jeans?

A. $22.80$
B. $24.00$
C. $24.20$
D. $25.20$
E. $28.35$

Which is the simplified form of $2 + 3 \sqrt{-12}$?

A. $8\sqrt{3}$
B. $2 + 6i\sqrt{3}$
C. $-i\sqrt{12}$
D. $2 - 3i\sqrt{12}$
E. $-4i\sqrt{12}$
Geometry

Students can solve problems involving area, circumference, surface area, volume, and angle measure. They understand congruence and similarity in terms of transformations and apply theorems involving properties of circles and right triangles.

**201-210**

Use the scale drawing of the building to answer the question.

![Scale drawing of building](image)

What is the actual height of the building?

A. 2 m  
B. 6 m  
C. **72 m**  
D. 144 m

**211-220**

Use the graph to answer the question.

![Graph](image)

The triangle is reflected across the y-axis and then reflected across the x-axis. P’ is the image of P after both reflections. What are the coordinates of P’?

A. (-9, -9)  
B. (-9, -3)  
C. **(-7, -9)**  
D. (-7, -3)

**221-230**

Which of these nets would fold into a closed cube?

A. ![Net A](image)  
B. ![Net B](image)  
C. ![Net C](image)  
D. ![Net D](image)  
E. ![Net E](image)

**231-240**

Use the formulas C = πd with 3.14 as an approximation for pi.

Find the circumference of this circle to the nearest inch.

A. **157 in.**  
B. 150 in.  
C. 1570 in.  
D. 53.14 in.  
E. 46.86 in.

**241-250**

Calculate the surface area of this rectangular solid.

A. **79 cm²**  
B. 110 cm²  
C. 120 cm²  
D. 128 cm²  
E. **158 cm²**
Statistics and Probability

Students can summarize, represent, and interpret data, including measures of center and variability, and investigate patterns of association in bivariate data. They can understand and evaluate random processes and compute probabilities of events in a uniform probability model.

201-210

A box contains 13 balls. 3 balls are red, 5 are blue, 4 are orange, and 1 is yellow.

What is the probability of picking a red ball?

A. \( \frac{3}{5} \)

B. \( \frac{3}{10} \)

C. \( \frac{1}{13} \)

D. \( \frac{3}{13} \) ✓

211-220

Diana received scores of 100, 63, 80, 85, and 92 on her math tests.

What is her mean (average) score?

A. 83

B. 84 ✓

C. 85

D. 86

E. 87

221-230

At Washington High School, 20% of the teachers coach a sports team, and 12% of the teachers coach a sports team and lead an academic club.

If one teacher chosen at random coaches a sports team, what is the probability that this teacher also leads an academic club?

A. \( \frac{3}{5} \)

B. \( \frac{3}{10} \)

C. \( \frac{1}{13} \)

D. \( \frac{3}{13} \)

231-240

Look at the box-and-whisker plot.

Which number represents the median of the data?

A. 20

B. 30 ✓

C. 32.5

241-250

If Sally studies math for 45 minutes a day at home, predict her math grade based on the scatter plot.

A. 50

B. 60

C. 70 ✓

above 250

At Washington High School, 20% of the teachers coach a sports team, and 12% of the teachers coach a sports team and lead an academic club.

If one teacher chosen at random coaches a sports team, what is the probability that this teacher also leads an academic club?

A. 8%

B. 16%

C. 32%

D. 60% ✓
MAP tests produce scores that make it possible to monitor student growth from year to year along developmental curriculum scales or continua. The chart inside shows examples of the kinds of work students can do at various points along the MAP RIT scale, assuming they have been exposed to content. This type of information is helpful in supporting appropriate instruction.

Please note that each subject area has a unique alignment to the RIT scale. As a result, scores between subjects are not equivalent.

How to use the charts:

1. Find the column containing the student’s score for a particular subject. For example, if the student’s score in “Foundational Skills” is 188, refer to the column labeled 181-190.

2. Read the column(s) from left to right to locate a sample test question for a given reporting area, such as “Foundational Skills.” A student’s score suggests that, currently, he or she is likely to get about half of the questions of this difficulty correct.

3. Now look at the questions in the column(s) to the left, and higher on the page. The student is likely to get most of these correct, assuming he or she has been instructed in these skills and concepts.

4. The questions further down the page will probably require new learning on the student’s part.

Please note:

Test items in this booklet are sample items, and many are not calibrated or field-tested. For purposes of this document, RIT scale alignment is an approximation.
Literature and Informational

Students understand what they read or hear read aloud. They can make inferences, cite textual evidence, and determine central ideas, main topics, or themes. They can identify and use various text features and determine or clarify the meaning of unknown words in context.

Listen to the story.

Which picture shows where the story probably takes place?
(This is a listening comprehension item. The passage is not presented here.)

Maureen wants to learn more about taking care of dogs.

Click on the book that she should read.

Why does the bus stop in this picture?

It is raining.
A train is passing.
A bike is passing.
The people want to ride.

Listen to the story.

What does Jayna do before she eats breakfast?
(This is a listening comprehension item. The passage is not presented here.)

Listen to the story.

What is the main idea of the passage?
(Passage is not read aloud.)

Skating is the best sport for kids.
Hockey is a team sport on skates.
In speed skating, racers try to finish first.
Figure skating is the most fun.

What is the main idea of the passage?

Birds are one of the few animals that can fly, so they go places other animals cannot. Robins build their nests high up in trees. There is a good reason for this. Robin parents stay in their nests with the babies as much as possible. But they must leave to find food. Sometimes baby birds must be left alone. This would be dangerous if the nests were on the ground because other animals could get to the baby birds. But since the nests are in trees, few animals can reach them. Baby robins are safer up in the trees than on the ground.

Read the passage.
Click on ALL the sentences that are facts.

Mr. Lee made lunch for his sons each day. Each son liked some foods best. The oldest son liked nuts and fruit. The middle son liked fruit and string cheese. The youngest son liked soup, fruit, and juice.

Mr. Lee made lunch for his sons each day. Each son liked some foods best. The oldest son liked nuts and fruit. The middle son liked fruit and string cheese. The youngest son liked soup, fruit, and juice.
Vocabulary Use and Functions

Students determine the meaning of unknown and multiple-meaning words and phrases by using context clues and analyzing word parts. They understand figurative language and word relationships. Students can use glossaries and beginning dictionaries to clarify word meanings.

Listen to the sentence: "The boy jumped down the stairs."
Click on the word with an ending that means "in the past."

The boy jumped down the stairs.

Look at the pictures.
Click on the bird.

Which word shows that Jamal had more than just a good time at the party?

Jamal had a good time at his friend's party.

Which means the same as glimpse?

Which pair of words means the same thing?

Jamal had a good time at his friend's party.

Which word shows that Jamal had more than just a good time at the party?

Which pair of words means the same thing?
Foundational Skills

Students understand the organization and basic features of print. They know and apply grade-level phonics and word analysis skills in decoding words. Students demonstrate understanding of spoken words, syllables, and sounds. They can isolate, manipulate, and blend individual sounds to form words.

Listen to the names of the pictures: tag, goat, boat, bus. Click on the two pictures that rhyme.
(Audio plays for the student, but text is not shown on the screen.)

Listen to the word: car.
Which picture has the same beginning sound as “car”?
Bug, cat, light, pan.
(Audio plays for the student, but text is not shown on the screen.)

Listen to the word: coin.
Click on the word “coin.”
(Audio plays for the student, but text is not shown on the screen.)

Listen to the names of the pictures: tag, goat, boat, bus. Click on the two pictures that rhyme.
(Audio plays for the student, but text is not shown on the screen.)

Listen to the word: coin.
Click on the word “coin.”
(Audio plays for the student, but text is not shown on the screen.)

Listen to the word: surprise.
Move the slash to divide the word into its syllables.
Language and Writing

Students understand conventions of standard English capitalization, punctuation, and spelling. They know conventions of standard English grammar and usage. Students develop persuasive, informative, and narrative writing by planning, revising, editing, rewriting, and adding details.

Find the mistake in the sentence. Click on the word that should begin with a capital letter.

The class pet mouse is named Marilyn.

Nick wrote this report about the United States flag for social studies class.

Click on the sentence that should NOT be in Nick’s report for class.

The United States flag has 50 stars.
Each star on the flag stands for one state.
My family and I live in the state of Oregon.
The United States flag has only three colors.
The colors are red, white, and blue.

Read the sentence.

“Many” is not spelled correctly. Use the letters to spell the word correctly.

(Roses can have) thorns.

Nick wrote this report about the United States flag for social studies class.

Click on the sentence that should NOT be in Nick’s report for class.

When they finally got home, they made an apple pie.
Gabe was busy on Sunday afternoon.
First, his mom took him to the park.
At the grocery store, Gabe chose apples.
After the park, they went to the grocery store.

Read the sentences.
Put the sentences in the best order to make a paragraph.
MAP tests produce scores that make it possible to monitor student growth from year to year along developmental curriculum scales or continua. The chart inside shows examples of the kinds of work students can do at various points along the MAP RIT scale, assuming they have been exposed to content. This type of information is helpful in supporting appropriate instruction.

Please note that each subject area has a unique alignment to the RIT scale. As a result, scores between subjects are not equivalent.

How to use the charts:

1. Find the column containing the student’s score for a particular subject. For example, if the student’s score in “Geometry” is 188, refer to the column labeled 181-190.

2. Read the column(s) from left to right to locate a sample test question for a given reporting area, such as “Geometry.” A student’s score suggests that, currently, he or she is likely to get about half of the questions of this difficulty correct.

3. Now look at the questions in the column(s) to the left, and higher on the page. The student is likely to get most of these correct, assuming he or she has been instructed in these skills and concepts.

4. The questions further down the page will probably require new learning on the student’s part.

Please note:

Test items in this booklet are sample items, and many are not calibrated or field-tested. For purposes of this document, RIT scale alignment is an approximation.
Operations and Algebraic Thinking

Students can represent and solve problems involving addition, subtraction, multiplication, and division. They understand and can apply properties of operations, and understand the relationship between operations.

Listen to the story problem:
There are four goats on the hillside. Three goats leave the hillside.

Click on the goats to show how many are on the hillside now.

Listen to the story problem:
There is 1 tree in the yard. 2 more get planted in the yard. Move the trees to the yard to show how many there are altogether.

The domino shows one way to make 5.
Move dots to the empty domino to show a different way to make 5.

The Lions had 47 points at halftime. At the end of the game they had 89.
How many points did the Lions score after halftime?

Bella had 78 shells in her collection. She gave 43 shells away to her friends.
How many shells are left in Bella’s collection?

You can move base ten blocks to help you solve the problem.
Number and Operations
Students can understand place value, the counting sequence, and counting strategies. They can compose and decompose numbers into hundreds, tens, and ones. Students can use place value understanding to compare numbers, perform multi-digit arithmetic, and develop understanding of fractions.

What number do the blocks show?

Look at the coat racks.
Click on the rack that has the fewest coats.

Look at the two groups.
Move cubes to the circles to make the groups equal.

Look at the picture.
How many superheroes are there?

Click on the number that is 1 more than 13.

Look at the number.
What is 100 more than 347?

6 hundreds and 5 ones

Look at the numbers.
Put the correct symbol in each of these problems to make them true.

Which number is described?
Measurement and Data

Students can solve problems involving measurement and estimation of lengths, time, liquid volumes, and masses of objects. They can use geometric measurement to understand area and perimeter. Students can organize, represent, and interpret data in various graphical representations.

Look at the picture.
Click on the shortest student.

Listen to the story: Julia bought a robot toy for 79 cents. She paid for it with one dollar.
Show the change that Julia should receive. Take as many coins as you need from each stack.

Look at the graph.
How many students chose hot dog as their favorite dinner?

Look at the picture of the bus.
Measure the length of the bus using blocks.
How many blocks long is the bus?

Look at the clock.
What time is shown on the clock?

Look at the sticker chart.
Click on the name of the student with the most star stickers.

Look at the group of objects. The objects in this group belong together.
Click on the object that belongs with the group.

What is the perimeter of the rectangle?

Above 191
Geometry

Students can reason with shapes and their attributes. They can identify and describe shapes having specified attributes. Students can partition shapes into equal shares to gain an understanding of fractional parts of a whole.

- Look at the shapes.
  Which shape has only 3 sides?

- Look at the picture.
  Which bird is over the cloud?

- Look at the pictures.
  Which is shaped like a circle?

- Look at the shapes.
  Move ALL the shapes with four corners to the mat.

- Look at the shapes.
  Click on the pyramid.

- Look at the shapes.
  Click on ALL of the shapes that are divided into equal shares.

- Look at the shapes.
  Click on the shapes that have six faces.

- Look at the shapes.
  Click on ALL of the shapes with one-third shaded.
MAP tests produce scores that make it possible to monitor student growth from year to year along developmental curriculum scales or continua. The chart inside shows examples of the kinds of work students can do at various points along the MAP RIT scale, assuming they have been exposed to content. This type of information is helpful in supporting appropriate instruction.

Please note that each subject area has a unique alignment to the RIT scale. As a result, scores between subjects are not equivalent.

**How to use the charts:**

1. Find the column containing the student’s score for a particular subject. For example, if the student’s score in “Physical Sciences” is 188, refer to the column labeled 181-190.

2. Read the column(s) from left to right to locate a sample test question for a given reporting area, such as “Physical Sciences.” A student’s score suggests that, currently, he or she is likely to get about half of the questions of this difficulty correct.

3. Now look at the questions in the column(s) to the left, and higher on the page. The student is likely to get most of these correct, assuming he or she has been instructed in these skills and concepts.

4. The questions further down the page will probably require new learning on the student’s part.

**Please note:**

Test items in this booklet are sample items, and many are not calibrated or field-tested. For purposes of this document, RIT scale alignment is an approximation.

*The MAP for Science assessment is not aligned to the Common Core.*
Physical Sciences

Students demonstrate understanding of the ideas about the interactions of matter, the relationship between force and motion, how energy forms transfer and transform, and the nature and use of waves. Students also demonstrate their understanding of these ideas in the context of the practices of science and engineering.

Which action is an example of melting?

A. heating a block of ice until the ice turns to water
B. warming a pan of water until the water is all gone
C. stirring some sugar in water until the sugar is invisible
D. cooling water in the freezer until the water becomes solid

Which is a solid?

A. air
B. milk
C. rock
D. water

A student experiments with magnets.

Which group of magnets has attractive forces between all 3 magnets?

A. S N N S N N S N
B. S N N M N N S N
C. N S N S N N S N
D. S N N S N N N N

Which group of magnets has attractive forces between all 3 magnets?

A. S N N S N N S N
B. S N N M N N S N
C. N S N S N N S N
D. S N N S N N N N

A physics student has an alarm clock that flashes a beam of white light when the alarm sounds. The student wants a green light from the alarm clock to flash directly into her eyes to help her wake up.

1. Position the mirrors so the light will shine directly into the student’s eyes. Drag the 2 mirrors with the appropriate angles into the diagram.
2. Choose the filter that will change the color of the light. Drag the appropriate filter to the box.

Students designed four pulley systems to lift a box.

Which pulley system will lift the box with the LEAST input force?

A. B. C. D.

Solid steel balls are located on ramps as shown.

Which ball has the greatest gravitational potential energy?

A. B. C. D.

Students made this model of two electrically charged objects.

Model 1

Which model shows objects with more energy stored in the electric field between them compared to Model 1?

A. B. C. D.
Life Sciences

Students demonstrate understanding of the ideas about the structure and processes of organisms, how matter and energy move through ecosystems, how heredity affects organisms, and how biological evolution affects the unity and diversity of life. Students also demonstrate their understanding of these ideas in the context of the practices of science and engineering.

A student plans to cross 2 purebred guinea pigs. One has black fur and one has white fur. The color of a guinea pig’s fur depends on a single gene pair. Black fur is dominant to white fur.

If there are 6 guinea pig offspring, what fur color will they most likely have?

A. 3 with black fur and 3 with white fur
B. 4 with black fur and 2 with white fur
C. 5 with black fur and 3 with white fur
D. 6 with black fur and 0 with white fur

✓D. 6 with black fur and 0 with white fur

Which part is labeled with the X?

A. flower
B. leaf
C. root
D. stem

Which part is labeled with the X?

A. flower
B. leaf
C. root
D. stem

Students are comparing animals in an environment. They need to describe all predators.

Which phrase describes all predators?

A. animals that eat plants and fungi
B. animals that hibernate in the winter
C. animals that hunt other animals for food
D. animals that live in herds with other animals

✓C. animals that hunt other animals for food

Why is DNA the storage molecule for hereditary information?

A. It contains the nitrogenous base uracil.
B. It contains strong covalent bonds.
C. It can be replicated and transcribed.
D. It translates the genetic code.

✓C. It can be replicated and transcribed

Students test how quickly they can hit a button after hearing a sound. The student with the quickest time took 0.17 seconds. They wonder why no one was faster than 0.17 seconds. Students make a model to explain what happens in the nervous system during this time.

Complete the model by dragging statements to the empty boxes. Statements can be used more than once or not at all.

Input
Process
Output

Muscles receive signals.
Signals are processed in the brain.
Signals are processed in the spinal cord.
Finger pushes button.
Signals travel along nerve cells.
Sense receptors in ears respond to sound.

How should they label stages 1, 2, and 3?

A. egg, pupa, and larva
B. larva, egg, and pupa
C. egg, larva, and pupa
D. pupa, larva, and egg

✓C. egg, larva, and pupa

Students made this model of the life cycle of a butterfly.

1
2
3

How should they label stages 1, 2, and 3?

A. egg, pupa, and larva
B. larva, egg, and pupa
C. egg, larva, and pupa
D. pupa, larva, and egg

✓C. egg, larva, and pupa

Which statement did Darwin NOT accept in forming his theories?

A. Variation is a characteristic of all living things.
B. Acquired characteristics can be passed on to offspring.
C. Individuals that are best adapted tend to survive and reproduce.
D. Organisms tend to produce more offspring than the environment can support.

✓B. Acquired characteristics can be passed on to offspring.
Earth and Space Sciences

Students demonstrate understanding of the ideas about the history of Earth in terms of the Universe, the Solar System, and the fossil record; Earth’s systems including the cycling of matter, plate tectonics, weather, and climate; and how Earth is affected by human activity. Students also demonstrate their understanding of these ideas in the context of the practices of science and engineering.

Show the position of the Sun in the sky at 6 a.m., 12 noon, and 6 p.m. in March by dragging the 3 Suns to the correct boxes.

In May, a student observes the constellation Virgo in one area of the sky. One month later, the student observes the constellation Bootes in the same area of the sky.

Why does the student observe the constellation Virgo in May and then Bootes in June?

A. Stars fade in and out.
B. Earth rotates on its axis.
C. Stars revolve around the Sun.
✓D. Earth revolves around the Sun.

How does air in Earth’s atmosphere move while being heated?

A. around in circles
✓B. upward in columns
C. downward in funnels
D. horizontally in layers

Which observation of weather usually indicates rain?

A. The wind speed is low.
✓B. The sky has many clouds.
C. The air temperature is high.
D. The wind direction is from the north.

Which object is shaped most like Earth?

A. an oval egg
B. a round ball
✓C. a flat pancake
D. a square block

Which evidence does NOT support the theory of plate tectonics?

A. the mapping of glacial features on different continents
B. the matching of fossil types in South America and Africa
C. the mid-ocean ridges with alternating magnetic stripes on the seafloor
✓D. the mass extinction of species on a continent within a small period of time

This GIS map shows a region where scientists placed a wind generator within the circled area.

How did the geographic information from this map allow scientists to choose an appropriate location for the wind generator?

A. High winds often occur far from rivers.
B. The lack of vegetation allows high winds to develop.
✓C. High winds are associated with mountain pass areas.
D. The nearby flat plains produce fast-moving air masses.

The diagram represents the water cycle in an area with a lake and plants.

Label the arrows by dragging the names of the processes into the appropriate boxes.

Which evidence does NOT support the theory of plate tectonics?
Founded by educators 40 years ago, Northwest Evaluation Association™ (NWEA™) is a global not-for-profit educational services organization known for our flagship interim assessment, Measures of Academic Progress® (MAP®). More than 7,400 partners in U.S. school districts, education agencies, and international schools trust us to offer pre-kindergarten through grade 12 assessments that accurately measure student growth and learning needs, professional development that fosters educators’ ability to accelerate student learning, and research that supports assessment validity. To better inform instruction and maximize every learner’s academic growth, educators currently use NWEA assessments and items with nearly 10 million students.

Discover the difference that true partnership makes.
Learn more at NWEA.org or call 503-624-1951.