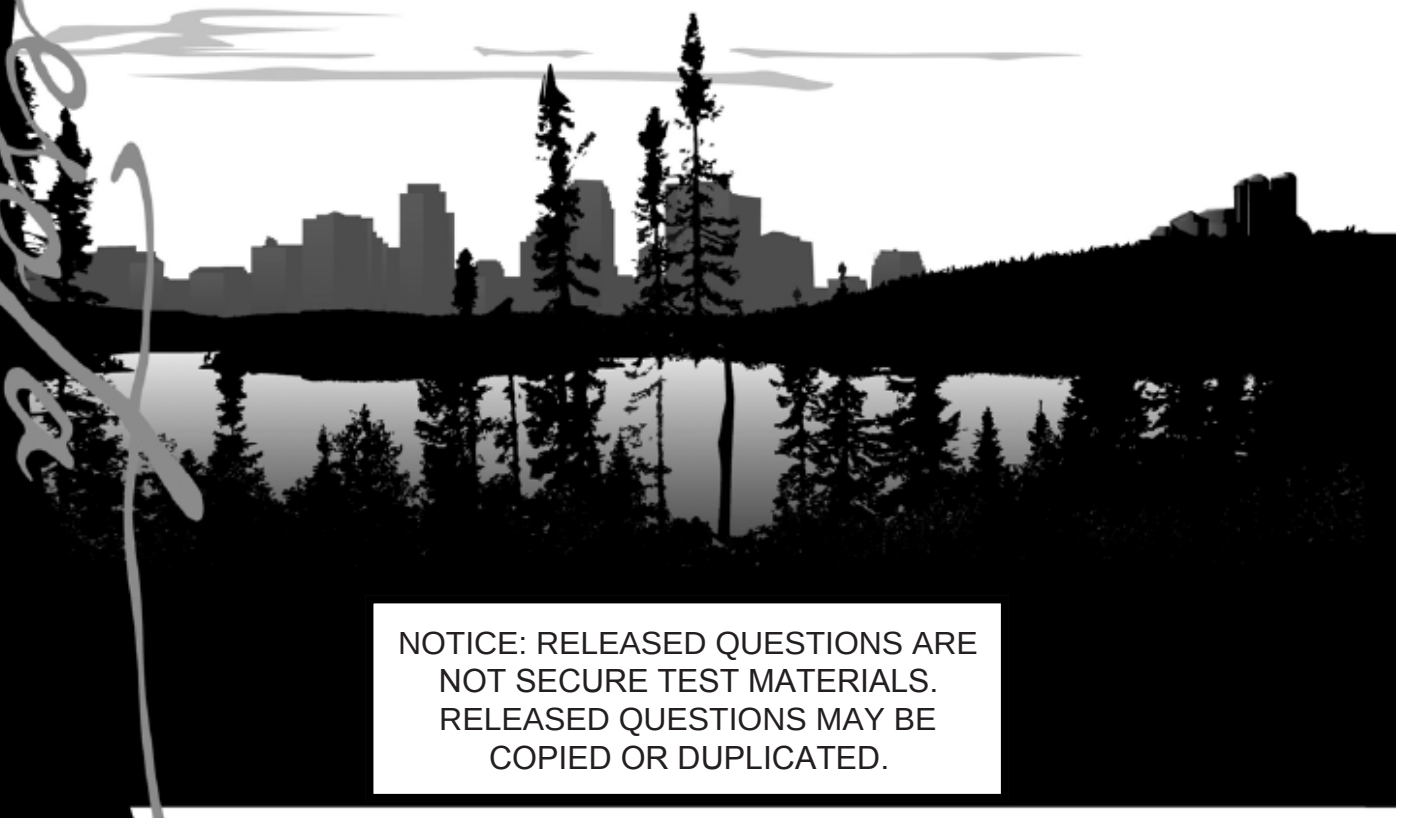
Minnesota Test of Academic Skills (MTAS)
Science Released Questions
Grade 5



NOTICE: RELEASED QUESTIONS ARE NOT SECURE TEST MATERIALS. RELEASED QUESTIONS MAY BE COPIED OR DUPLICATED.

DEPARTMENT OF EDUCATION

Minnesota Test of Academic Skills
Grade 5 Science
Sample Task 1

<table>
<tr><th>Test Administrator Instructions</th><th>Score</th><th>Student Responses</th></tr>
<tr><td colspan="3">Administration notes:
▪ You may use objects when presenting questions and answer options. However, some tasks limit how objects can be used; any limitations will be specified on the task.
▪ Repeat the question exactly as it appears at score 3 as many times as needed until the student responds or until it is clear that the student will not respond.</td></tr>
<tr><td rowspan="2">Present: S5_Sample 1

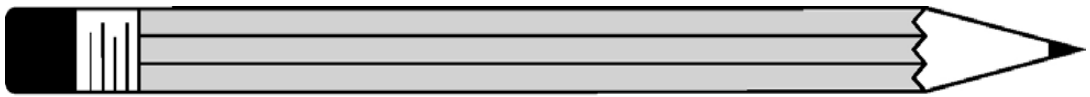
Say: Here is a pencil. Which tool measures the length of the pencil?

Present the answer options in order. Point to each option as you say it.
A. Ruler
B. Hand lens
C. Thermometer</td><td rowspan="2">3</td><td>Ruler</td></tr>
<tr><td>If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 3. If the student chooses an incorrect answer, continue below.</td></tr>
<tr><td colspan="3">Additional administration notes:
▪ If the student responds incorrectly or not at all, present the task with support as scripted.
▪ Once additional support is provided, the task may not be re-administered for a score of 3.</td></tr>
<tr><td rowspan="3">Re-present: S5_Sample 1

Say: One of these tools can show how long the pencil is. Which tool measures the length of the pencil?

Re-present the answer options in order. Point to each option as you say it.
A. Ruler
B. Hand lens
C. Thermometer</td><td rowspan="2">2</td><td>Ruler</td></tr>
<tr><td>If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 1. If the student chooses an incorrect answer, the task should be scored a 1.</td></tr>
<tr><td>1</td><td>Hand lens or Thermometer</td></tr>
<tr><td></td><td>0</td><td>Unrelated or none</td></tr>
</table>

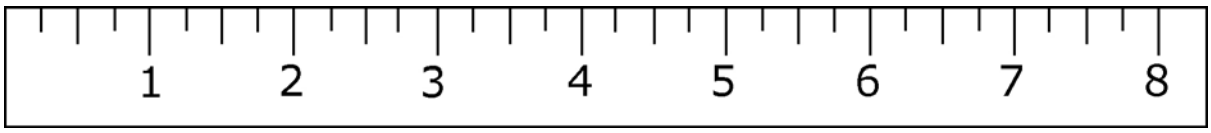
Grade 5 Science 3.1.3.4.1: The student will identify ools appropriate for a given scientific investigation.



Pencil

Which tool measures the length of the pencil?

S5_Sample 1
A

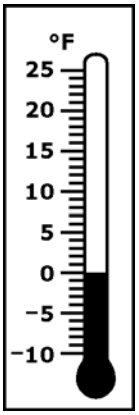


Ruler

S5_Sample 1
B

Hand lens

S5_Sample 1
C



Thermometer

Minnesota Test of Academic Skills
Grade 5 Science
Sample Task 2

<table>
<tr><th>Test Administrator Instructions</th><th>Score</th><th>Student Responses</th></tr>
<tr><td colspan="3">Administration notes:
▪ You may use objects when presenting questions and answer options. However, some tasks limit how objects can be used; any limitations will be specified on the task.
▪ Repeat the question exactly as it appears at score 3 as many times as needed until the student responds or until it is clear that the student will not respond.</td></tr>
<tr><td rowspan="2">Present: S5_Sample 2

Say: A student takes a frozen treat out of the freezer. It melts. Which change happens to the frozen treat?

Present the answer options in order. Point to each option as you say it.
A. Solid to liquid
B. Solid to solid
C. Solid to gas</td><td rowspan="2">3</td><td>Solid to liquid</td></tr>
<tr><td>If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 3. If the student chooses an incorrect answer, continue below.</td></tr>
<tr><td colspan="3">Additional administration notes:
▪ If the student responds incorrectly or not at all, present the task with support as scripted.
▪ Once additional support is provided, the task may not be re-administered for a score of 3.</td></tr>
<tr><td rowspan="4">Re-present: S5_Sample 2

Say: A student takes a frozen treat out of the freezer. The frozen treat gets warm and melts. Which change happens to the frozen treat?

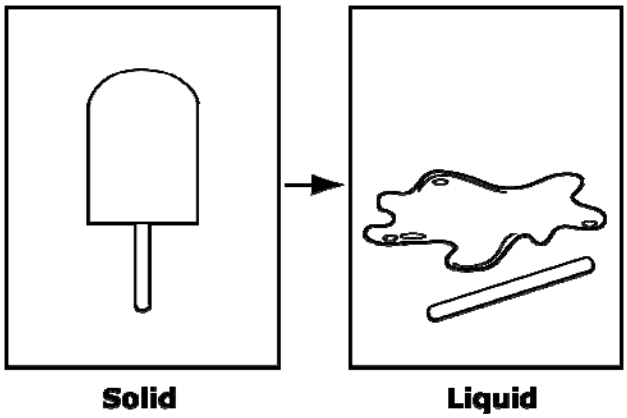
Re-present the answer options in order. Point to each option as you say it.
A. Solid to liquid
B. Solid to solid
C. Solid to gas</td><td rowspan="2">2</td><td>Solid to liquid</td></tr>
<tr><td>If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 2. If the student chooses an incorrect answer, the task should be scored a 1.</td></tr>
<tr><td>1</td><td>Solid to solid or Solid to gas</td></tr>
<tr><td>0</td><td>Unrelated or none</td></tr>
</table>

Grade 5 Science 4.2.1.2.2: The student will identify and describe how states of matter change as a result of heating and cooling.

S5_Sample 2

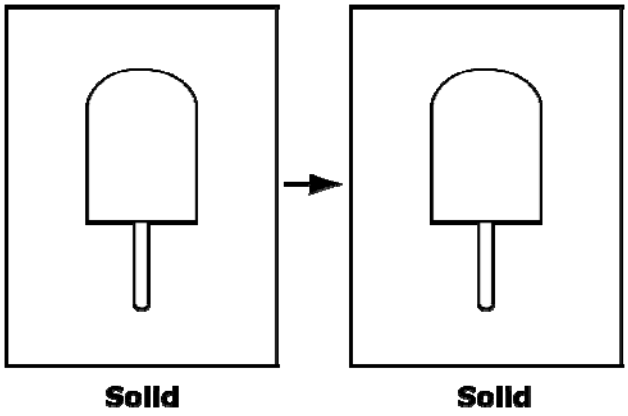
Which change happens to the frozen treat?

S5_Sample 2
A



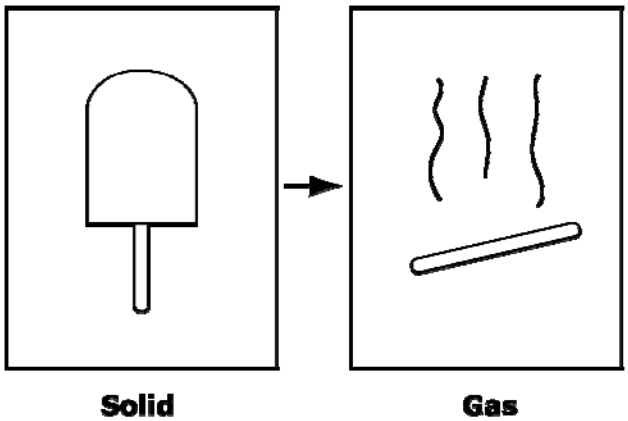
Solid to liquid

S5_Sample 2
B



Solid to solid

S5_Sample 2
C



Solid to gas

Minnesota Test of Academic Skills
Grade 5 Science
Sample Task 3

<table>
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<tr><td colspan="3">Administration notes:
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▪ Repeat the question exactly as it appears at score 3 as many times as needed until the student responds or until it is clear that the student will not respond.</td></tr>
<tr><td rowspan="2">Present: S5_Sample 3

Say: Here are some plants. Which plant belongs with the oak and pine trees?

Present the answer options in order (bean plant, flower, maple tree). Point to each option as you say it.
A. Plant A (bean plant)
B. Plant B (flower)
C. Plant C (maple tree)</td><td rowspan="2">3</td><td>Plant C (maple tree)</td></tr>
<tr><td>If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 3. If the student chooses an incorrect answer, continue below.</td></tr>
<tr><td colspan="3">Additional administration notes:
▪ If the student responds incorrectly or not at all, present the task with support as scripted.
▪ Once additional support is provided, the task may not be re-administered for a score of 3.</td></tr>
<tr><td rowspan="3">Re-present: S5_Sample 3

Say: Here are some plants. Plants that are similar can be grouped together. Which plant belongs with the oak and pine trees?

Re-present the answer options in order (bean plant, flower, maple tree). Point to each option as you say it.
A. Plant A (bean plant)
B. Plant B (flower)
C. Plant C (maple tree)</td><td rowspan="2">2</td><td>Plant C (maple tree)</td></tr>
<tr><td>If you believe the student's correct response was unintentional, reorder the answer options to B, C, A (instead of A, B, C). Repeat the question. If the student chooses the correct answer again, the task should be scored a 2. If the student chooses an incorrect answer, the task should be scored a 1.</td></tr>
<tr><td>1</td><td>Plant A (bean plant)
or
Plant B (flower)</td></tr>
<tr><td></td><td>0</td><td>Unrelated or none</td></tr>
</table>

Grade 5 Science 3.4.1.1.2: The student will group plants and/or animals based on their physical characteristics.

S5_Sample 3

Oak tree

Pine tree

Which plant belongs with the oak and pine trees?

S5_Sample 3
A

Plant A

S5_Sample 3
B

Plant B

S5_Sample 3
C

Plant C

MTAS Science Object List (OPTIONAL)
Science Released Questions

The MTAS Object Lists for mathematics and science include examples of objects and other variations in the presentation of the MTAS tasks. Some common ways to vary the task presentation include (1) using Braille text and tactile graphics, enlarging, or texturizing print and (2) supplementing numbers in tasks with some type of counter. These variations may be used with nearly all math and science tasks unless explicitly prohibited in the task script.

Keep in mind that these lists provide recommendations only; test administrators may use different objects and/or text formats to make tasks more accessible for individual students as long as students are not provided with additional content information. For example, several math tasks incorporate a number line with an unlabeled point. Number lines used in classrooms may not be appropriate for all of the MTAS tasks if all points are labeled.

Please contact MDE (mde.testing@state.mn.us) if you have questions about objects that may be used to represent MTAS tasks.

Task	Objects
Grade 5 Sample 01	**Present task using an object:** 1 pencil **Present answer options using objects or tactile graphics:** 1 ruler 1 hand lens 1 thermometer
Grade 5 Sample 02	**Present task using an object or picture:** 1 frozen treat on a stick such as a popsicle **Present answer options using objects, pictures, or tactile graphics to represent pictures on presentation page:** 4 frozen treats 2 popsicle sticks 2 – 3 tablespoons colored water
Grade 5 Sample 03	**Present task using objects, pictures, or tactile graphics:** 1 oak tree 1 pine tree **Present answer options using objects, pictures, or tactile graphics:** 1 bean plant 1 flower 1 maple tree