

**Computer-Based Released Items**  
**Grade 5 Science and Technology/Engineering**  
**Spring 2018**

The spring 2018 grade 5 Science and Technology/Engineering (STE) test was administered in two formats: a computer-based version and a paper-based version. The operational items on the test were the same, regardless of whether a student took the computer-based version or the paper-based version.

Released items from the grade 5 test are being made available in both formats:

- **Computer-based versions** of the released items are available online at [mcas.pearsonsupport.com/released-items](http://mcas.pearsonsupport.com/released-items). The computer-based released items are collected in a mini test called an ePAT (electronic practice assessment tool). Items in the ePAT are displayed in TestNav 8, the testing platform for the computer-based tests.
- **Paper-based versions** of the released items are available in PDF format on the Department's website at [www.doe.mass.edu/mcas/testitems.html](http://www.doe.mass.edu/mcas/testitems.html).

This document provides information about each computer-based released item, including: reporting category, standard covered, item type, and correct answer (for multiple-choice items only). Information about unreleased operational items is also presented here, along with scoring rubrics for open-response questions.

**Grade 5 Science and Technology/Engineering  
Spring 2018 Computer-Based Released Operational Items:  
Reporting Categories, Standards, Item Types, and Correct Answers**

CBT Item No.*	ePAT Item No.*	Reporting Category	2006 Standard	2016 Standard	Item Type**	Correct Answer***
1	1	<i>Earth and Space Science</i>	6	3-ESS2-1	MC	D
3	2	<i>Life Science</i>	5	3-LS3-2	MC	B
6	3	<i>Technology/Engineering</i>	2.1	3.3-5-ETS1-1	MC	B
9	4	<i>Life Science</i>	3	3-LS1-1	MC	C
10	5	<i>Life Science</i>	6	3-LS4-3	MC	D
11	6	<i>Technology/Engineering</i>	2.3	4.3-5-ETS1-5(MA)	MC	C
14	7	<i>Life Science</i>	11	5-LS2-1	MC	C
18	8	<i>Physical Science</i>	12	4-PS4-2	MC	A
19	9	<i>Earth and Space Science</i>	4	4-ESS2-1	MC	C
23	10	<i>Life Science</i>	7	3-LS4-4	MC	A
24	11	<i>Physical Science</i>	4	4-PS3-2	MC	A
26	12	<i>Physical Science</i>	9	3-PS2-3	MC	D
27	13	<i>Earth and Space Science</i>	12	4-ESS1-1	MC	C
28	14	<i>Life Science</i>	9	3-LS4-4	MC	A
30	15	<i>Earth and Space Science</i>	15	5-ESS1-2	MC	C
31	16	<i>Life Science</i>	10	3-LS4-4	MC	A
36	17	<i>Technology/Engineering</i>	1.1	5-PS1-3	MC	C
38	18	<i>Life Science</i>	2	4-LS1-1	MC	A
39	19	<i>Technology/Engineering</i>	2.2	3.3-5-ETS1-4(MA)	MC	A
41	20	<i>Physical Science</i>	2	5-PS1-1	OR	
42	21	<i>Earth and Space Science</i>	10	5-ESS2-1	OR	

\*“CBT Item Number” refers to the position of the item on the operational computer-based test. This is the item number that DESE refers to when reporting student results for a CBT item. “ePAT Item Number” refers to the position of the item in the 2018 released item set for grade 5 STE, found online at [mcas.pearsonsupport.com/released-items](http://mcas.pearsonsupport.com/released-items).

\*\*STE item types are: multiple-choice (MC) and open-response (OR).

\*\*\*Answers are provided here for multiple-choice items only. Sample responses and scoring guidelines for any open-response items will be posted to the Department’s website later this year.

**Grade 5 Science and Technology/Engineering  
Spring 2018 Computer-Based Unreleased Operational Items:  
Reporting Categories, Standards, and Item Types**

<b>CBT Item No.*</b>	<b>Reporting Category</b>	<b>2006 Standard</b>	<b>2016 Standard</b>	<b>Item Type**</b>
2	<i>Physical Science</i>	5	4-PS3-2	MC
4	<i>Earth and Space Science</i>	14	5-ESS1-2	MC
5	<i>Earth and Space Science</i>	2	5-PS1-3	MC
7	<i>Physical Science</i>	7	5-PS1-3	MC
8	<i>Earth and Space Science</i>	13	5-ESS1-2	MC
12	<i>Life Science</i>	4	3-LS1-1	MC
13	<i>Life Science</i>	11	5-LS1-1	MC
15	<i>Technology/Engineering</i>	2.1	4.3-5-ETS1-5(MA)	MC
16	<i>Earth and Space Science</i>	10	5-ESS2-1	MC
17	<i>Life Science</i>	6	3-LS4-2	MC
20	<i>Technology/Engineering</i>	2.1	3.3-5-ETS1-2	OR
21	<i>Life Science</i>	2	4-LS1-1	OR
22	<i>Physical Science</i>	6	4-PS3-2	MC
25	<i>Physical Science</i>	4	4-PS3-2	MC
29	<i>Physical Science</i>	3	5-ESS2-1	MC
32	<i>Earth and Space Science</i>	6	3-ESS2-1	MC
33	<i>Earth and Space Science</i>	9	3-ESS2-2	MC
34	<i>Physical Science</i>	2	5-PS1-1	MC
35	<i>Life Science</i>	3	3-LS1-1	MC
37	<i>Earth and Space Science</i>	2	5-PS1-3	MC
40	<i>Earth and Space Science</i>	12	4-ESS1-1	MC

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\*\*STE item types are: multiple-choice (MC) and open-response (OR).

### Rubric for CBT Item #41: Open Response

Scoring Guide	
Score	Description
<b>4</b>	Response demonstrates a thorough understanding of the differences between solids, liquids, and gases based on the basic properties of each of these states of matter. The response correctly identifies the three states of matter and an example of each state of matter present when the candle is burning. The response clearly describes one basic property of each of the three states of matter.
<b>3</b>	Response demonstrates a general understanding of the differences between solids, liquids, and gases based on the basic properties of each of these states of matter.
<b>2</b>	Response demonstrates a limited understanding of the differences between solids, liquids, and gases based on the basic properties of each of these states of matter.
<b>1</b>	Response demonstrates a minimal understanding of the differences between solids, liquids, and gases based on the basic properties of each of these states of matter.
<b>0</b>	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
<b>Blank</b>	No response.

### Rubric for CBT Item #42: Open Response

Scoring Guide	
Score	Description
<b>4</b>	The response demonstrates a thorough understanding of how water on Earth cycles in different forms and in different locations. The response correctly identifies and clearly describes how water changes phases in process 1 and process 2. The response correctly identifies process 3 and clearly describes one effect temperature can have on water in that process. The response clearly explains why the amount of runoff is greatest during the spring in Massachusetts.
<b>3</b>	The response demonstrates a general understanding of how water on Earth cycles in different forms and in different locations.
<b>2</b>	The response demonstrates a limited understanding of how water on Earth cycles in different forms and in different locations.
<b>1</b>	The response demonstrates a minimal understanding of how water on Earth cycles in different forms and in different locations.
<b>0</b>	The response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
<b>Blank</b>	No response.