

## **IMAST Science Sample Items (Grades 4, 6)** (Beginning in Spring 2010)

The purpose of this Item Sampler is to provide examples of the types of questions that will appear on the science portions of IMAST beginning in the spring of 2010. Each grade-level science IMAST assessment will consist of multiple-choice items *only*.

This Item Sampler displays assessment items in both an ISTEP+ format and an IMAST format. In creating IMAST, modifications were made to assessment items with the intent of maintaining grade-level standard alignment while providing more accessibility for students.

Possible item modifications in science are listed below:

- Reduce length of text
- Simplify text
- Bullet text
- Add **bold** font for essential words
- Clarify question or directive
- Use active voice
- Eliminate negative stem
- Add visual
- Simplify visual(s)
- Eliminate visual(s)
- Eliminate implausible distractor(s)
- Eliminate distractor(s)
- Change order of choices
- Increase white space
- Increase font size
- Reduce the number of variables and simplify digits
- Limit the number of steps in multi-step problems

### **ISTEP+ Grade 4 Multiple Choice Item (Standard 3)**

Which event is caused by Earth rotating on its axis?

- A. four different seasons
- B. the changing of the phases of the moon
- C. one day and one night in every 24 hours
- D. 365 days in a year

**IMAST Grade 4 Multiple Choice Item (Standard 3)**

Which event is caused by Earth rotating on its axis?

- A. the changing of the phases of the moon
- B. one day and one night in every 24 hours
- C. 365 days in a year

Modification:

- Eliminate distractor(s)

**ISTEP+ Grade 6 Multiple Choice Item (Standard 2)**

Jenna rolled a small glass marble and a large glass marble down a ramp at the same time to see if the large marble would roll further than the small one. She repeated this investigation four times. The table below shows her results.

**Distances Rolled by  
Marbles of Different Sizes**

<b>Trial</b>	<b>Small Marble (centimeters)</b>	<b>Large Marble (centimeters)</b>
1	305	300
2	306	304
3	299	309
4	301	298

Which statement CORRECTLY describes information found in Jenna's table?

- A. The small marble rolled further than the large marble in trials 2 and 3.
- B. The large marble rolled further than the small marble in trials 1 and 4.
- C. The difference in distances rolled by the small marble is less than 8 centimeters.
- D. The difference in distances rolled by the large marble is less than 8 centimeters.

### IMAST Grade 6 Multiple Choice Item (Standard 2)

- A small glass marble and a large glass marble were rolled down a ramp at the same time to see if the large marble would roll further than the small one.
- This investigation was repeated four times.
- The table below shows the results.

**Distances Rolled by  
Marbles of Different Sizes**

<b>Trial</b>	<b>Small Marble (centimeters)</b>	<b>Large Marble (centimeters)</b>
1	306	300
2	307	304
3	300	309
4	302	299

Which describes information found in the table?

- A. The small marble rolled further than the large marble in trials 2 and 3.
- B. The large marble rolled further than the small marble in trials 1 and 4.
- C. The difference in distances rolled by the small marble is less than 8 centimeters.
- D. The difference in distances rolled by the large marble is less than 8 centimeters.

Modifications:

- Simplify text
- Bullet text
- Clarify question or directive
- Reduce the number of variables and simplify digits

## Item Sampler Answer Key

### ISTEP+ Grade 4 Multiple Choice Item

C. one day and one night in every 24 hours

### IMAST Grade 4 Multiple Choice Item

B. one day and one night in every 24 hours

### ISTEP+ Grade 6 Multiple Choice Item

C. The difference in distances rolled by the small marble is less than 8 centimeters.

### IMAST Grade 6 Multiple Choice Item

C. The difference in distances rolled by the small marble is less than 8 centimeters.