



Functional Independence

Science

Official Released Items

Grade 11

Spring 2010
Official Released Items

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The *Grade 11 Functional Independence Science Assessment* was administered for the first time in Spring 2008. This booklet contains released items from the Spring 2010 administration and is intended to be used by districts to assist in their interpretation of item analysis data. The information contained in this booklet may also be used by schools, teachers, and parents as a resource for understanding the content and format of the assessment items. In addition to MI-Access training materials and Extended Benchmarks (EB), the released items may also have utility in informing decisions related to instruction, curriculum, and assessment. These items are **not** secure and may be copied and distributed as needed.

The table below lists the number of core and released items administered on the Spring 2010 *Grade 11 Functional Independence Science Assessment*. Core items are those that count toward students' scores. All released items in this booklet were selected from the pool of core items that appeared on the assessment.

Functional Independence Science Grade 11

| Science Strand | Number of Core Items |
|--------------------------------|--|
| Life | 14 |
| Physical | 15 |
| Earth | 12 |
| Constructing | 2 |
| Reflecting | 2 |
| Total Core Items/Points | 45 |
| Released Items | 9 (Numbers vary by strand and topic.) |

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DIRECTIONS: Read each question. Choose the **BEST** answer for each question.

R1 Why do bees make honey?

- A** They like the taste of honey.
- B** Honey is stored to feed new queen bees.
- C** They store food to prepare for summer.

R2 Terri is not feeling well.

The doctor says that she has a mild viral infection.

What should she expect to happen?

- A** She will need surgery to remove the infection.
- B** She will be fine in a few days.
- C** She will be sent to the hospital.

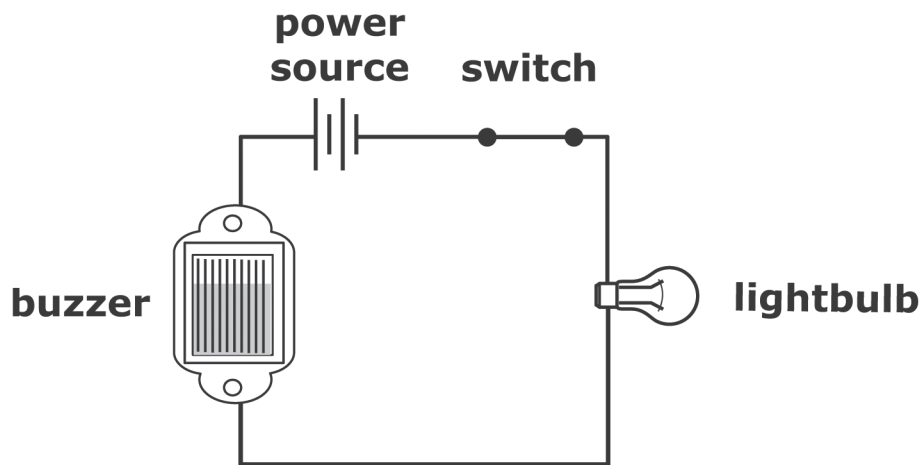
R3 Which **best** describes how rangers might increase the bird population in a state park?

A extend the fishing season

B construct bicycle paths

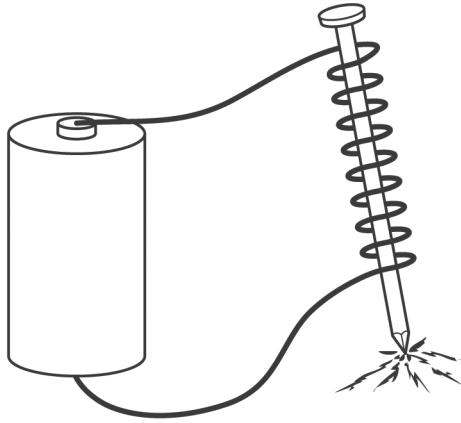
C build nesting boxes

Use the diagram below to answer question **R4**.



- R4** What will happen to the buzzer if the switch is opened when it is making a sound?
- A** It will get louder.
 - B** It will light up.
 - C** It will stop.

R5 Chris wraps a copper wire around a nail.

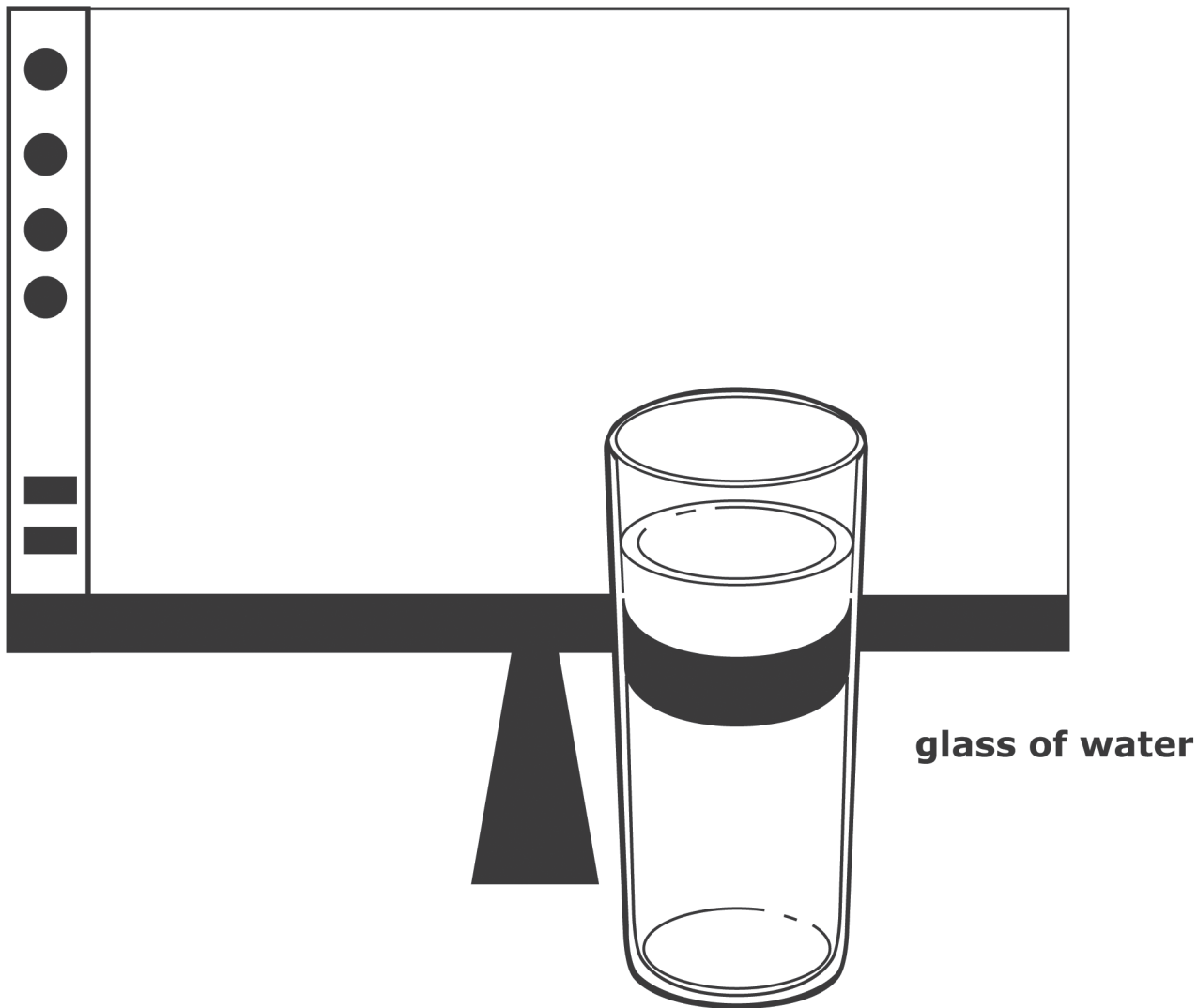


He connects the wire ends to a battery.

What has Chris made?

- A** electromagnet
- B** battery tester
- C** electric meter

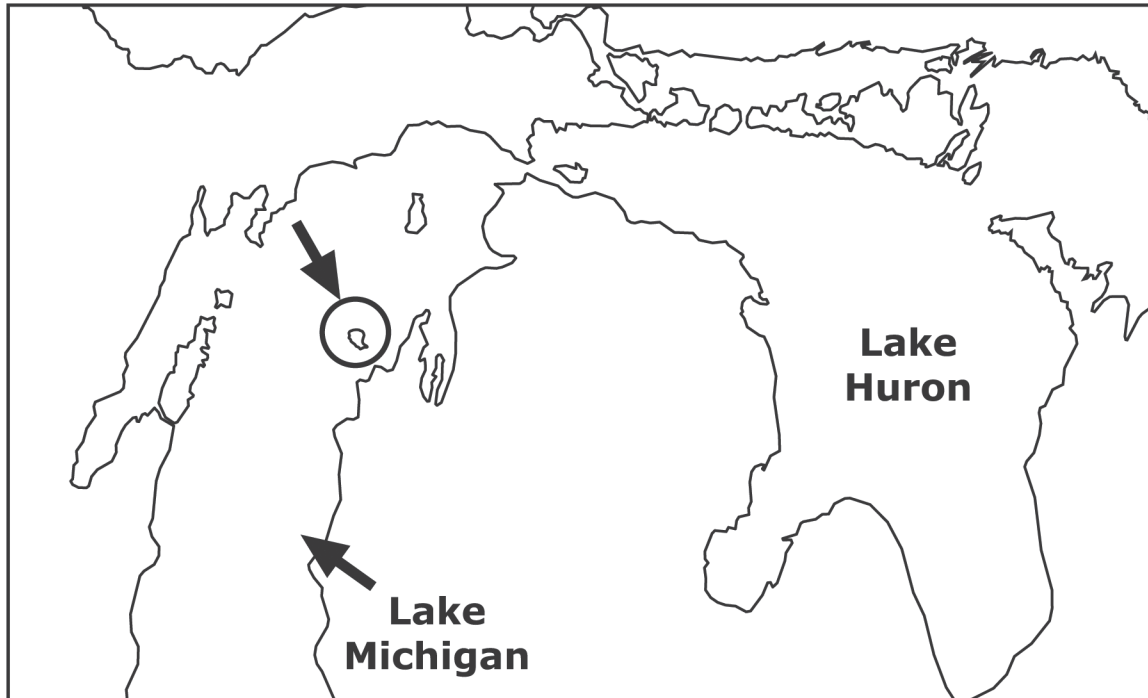
R6 Below is a picture of a glass of water in front of a computer screen.



Why does the light pattern change shape as it passes through the glass of water?

- A** The light is refracted by the glass and water.
- B** The light is reflected off the glass and water.
- C** The light gets lost in the glass and water.

Use the map below to answer question **R7**.



R7 What type of landform is in the circle on the map?

- A** island
- B** mountain
- C** plain

Use the map below to answer question **R8**.



R8 Where does runoff water go after it travels through the St. Lawrence River?

- A** Atlantic Ocean
- B** Lake Superior
- C** Hudson Bay

R9 In Michigan, which month has the **greatest** amount of sunlight each day?

A July

B April

C December

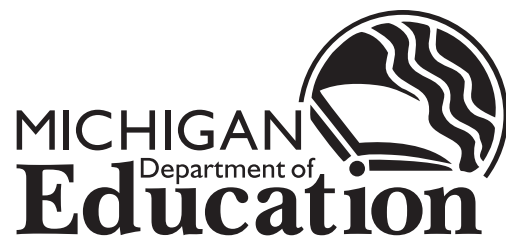


Do Not Continue.

Below is a list of the Extended Benchmarks (EB) for each released item found in this booklet. The chart contains the EB code, a brief description of what is measured, and the correct answer for each released item.

Full descriptions of the EB contained in the chart below are available for review and download at www.mi.gov/mi-access.

| Science | | | |
|------------------------------|-------------------------|---|-------------------|
| Released Items Number | EB Code | Strand or Abbreviated Descriptor/Scoring Focus | Answer Key |
| | | Life | |
| R1 | L.OR.FI.EB.III.2.h.3a | Explain why plants and animals store food | B |
| R2 | L.OR.FI.EB.III.2.h.2a | Identify the life cycle of an organism associated with human disease | B |
| R3 | L.EC.FI.EB.III.5.h.3a | Identify and/or describe general factors that influence population size | C |
| | | Physical | |
| R4 | P.ME.FI.EB.IV.1.h.4a | Identify and/or explore how current is controlled in simple and parallel circuits | C |
| R5 | P.CM.FI.EB.IV.2.h.4a | Identify common energy transformations in everyday situations | A |
| R6 | P.WV.FI.EB.IV.4.m.4ADDh | Identify and/or describe ways in which light interacts with matter | A |
| | | Earth | |
| R7 | E.GE.FI.EB.V.1.m.1ADDh | Identify and/or describe surface features using maps | A |
| R8 | E.HY.FI.EB.V.2.m.2ADDh | Describe how surface water in Michigan reaches the oceans and returns | A |
| R9 | E.AW.FI.EB.V.3.e.2ADDh | Identify and/or describe seasonal changes in Michigan's weather | A |



Michigan Department of Education
Office of Educational Assessment and Accountability
608 West Allegan Street
P.O. Box 30008
Lansing, MI 48909
877-560-8378
www.mi.gov/mi-access