



Functional Independence

Science

Official Released Items

Grade 11

Spring 2010
Official Released Items

**MICHIGAN STATE BOARD OF EDUCATION
STATEMENT OF ASSURANCE OF COMPLIANCE WITH FEDERAL LAW**

The Michigan State Board of Education complies with all Federal laws and regulations prohibiting discrimination and with all requirements and regulations of the U.S. Department of Education. It is the policy of the Michigan State Board of Education that no person on the basis of race, color, religion, national origin or ancestry, age, sex, marital status, or handicap shall be discriminated against, excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination in any program or activity for which it is responsible or for which it receives financial assistance from the U.S. Department of Education.

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.)

Copyright © 2010, held by the State Administrative Board, State of Michigan. All rights reserved. Printed in U.S.A. **Permission is granted to schools, parents, government agencies and non-profit organizations in Michigan to reproduce and distribute this document for non-commercial use in helping Michigan educators and other citizens in interpreting and using the MI-Access assessment results.**

For all instances other than identified in the previous paragraph, no part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission from the Office of Educational Assessment and Accountability.

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.

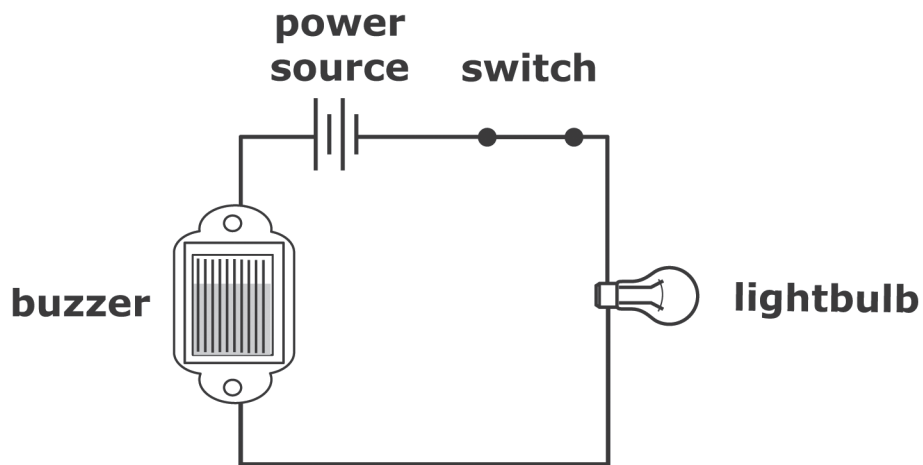
R3 Which **best** describes how rangers might increase the bird population in a state park?

A extend the fishing season

B construct bicycle paths

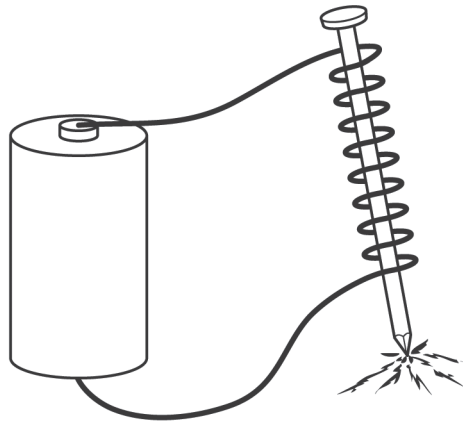
C build nesting boxes

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.

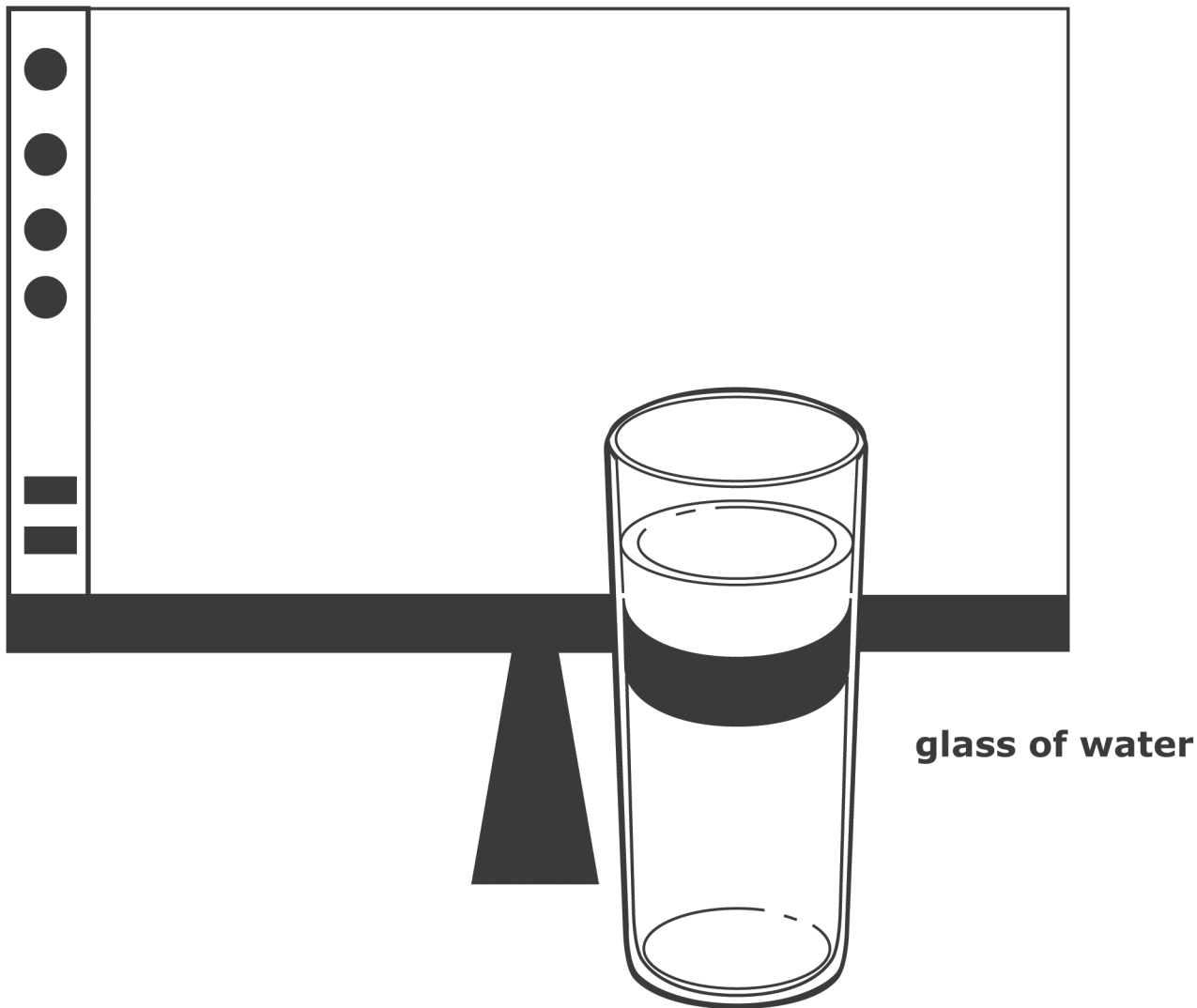


He connects the wire ends to a battery.

What has Chris made?

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

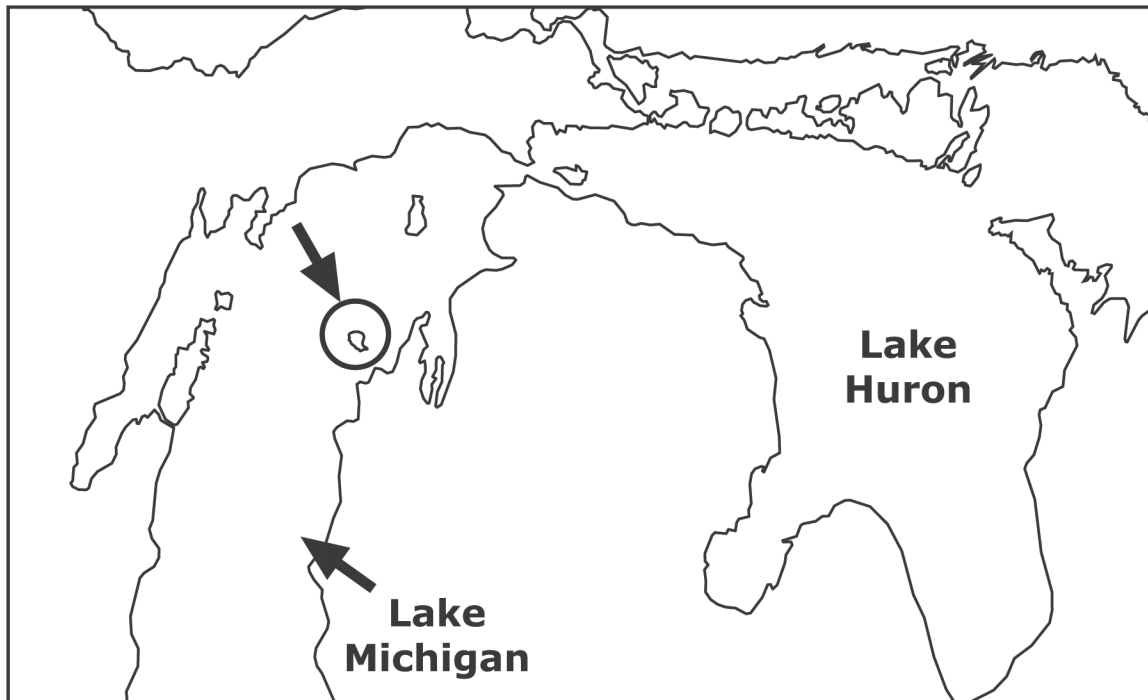
R6 Below is a picture of a glass of water in front of a computer screen.



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