

# Functional Independence

## Fall 2012



**Science**

*Item Descriptors*

**Grade 8**

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

- 1 P.ME.FI.EB.IV.1.m.1a:**  
Describe and compare objects in terms of weight and width

Based on the illustrations, identify the pair of plants having equal amounts of a physical characteristic

- A** selects a pair with unequal amounts of the characteristic
- B** selects a pair with unequal amounts of the characteristic
- C** selects the pair having equal amounts of the characteristic

- 2 R.RO.FI.EB.II.1.e.3ADDm:**  
Identify and/or describe ways in which technology is used in everyday life

Recognize which of 3 listed electronic devices enables a person to accomplish a specified task

- A** selects a device that could provide access to the necessary technology but does not enable task completion
- B** selects the device that enables a person to complete the specified task
- C** selects a device that does not enable a person to complete the specified task

- 3 C.CN.FI.EB.I.1.m.3a:** Identify and/or use tools and equipment appropriate to scientific investigations

Recognize the appropriate tool to use to accomplish a specified task

- A** selects a tool that would not enable a person to complete the specified task
- B** selects a tool that is appropriate for use to complete the specified task
- C** selects a tool that would not enable a person to complete the specified task

- 4 L.CE.FI.EB.III.1.m.1a:**  
Recognize that all living things are made of cells

Distinguish plant cells from other types of cells

- A** selects cells that are not plant cells
- B** selects the drawing that represents plant cells
- C** selects cells that are not plant cells

- 5 L.OR.FI.EB.III.2.m.1a:**  
Compare and/or classify organisms in major groups based on their structure
- Given 3 drawings of different organisms, recognize which organism is a specified type
- A** selects an organism that is not an example of the specified type
  - B** selects the drawing that is an example of the specified type of organism
  - C** selects an organism that is not an example of the specified type
- 6 L.OR.FI.EB.III.2.m.1a:**  
Compare and/or classify organisms in major groups based on their structure
- Recognize which animal is an example of a specified animal classification
- A** selects an animal not included within the specified classification
  - B** selects an animal not included within the specified classification
  - C** selects the animal that is a member of the specified animal classification

- 7 L.OR.FI.EB.III.2.m.2a:**  
Identify stages of the life cycle of flowering plants
- Based on a procedure list, recognize the step in the procedure that follows the step illustrated by the drawing
- A** selects a step that precedes the step illustrated by the drawing
  - B** selects a step that is beyond the step that follows the step illustrated by the drawing
  - C** selects the step in the procedure that immediately follows the step illustrated by the drawing

**8 L.OR.FI.EB.III.2.m.2a:**  
Identify stages of the life cycle of flowering plants

Identify the process a flowering plant, in a specified life-cycle stage, follows to proceed with its development

- A** does not correctly identify the process the plant, in its specified life-cycle stage, follows
- B** recognizes the process that the plant, in this stage of its life-cycle, follows to proceed with its development
- C** does not correctly identify the process the plant, in its specified life-cycle stage, follows

**9 L.OR.FI.EB.III.2.m.4a:**  
Identify how selected systems and processes work together in animals

Recognize which body system primarily carries out the specified purpose

- A** selects a body system that is not primary for the specified purpose
- B** selects a body system that is not primary for the specified purpose
- C** selects the body system that primarily carries out the specified purpose

**10 L.OR.FI.EB.III.2.m.3a:**  
Explain where plants make and store food

Recognize which part of a specified plant is used to store its food

- A** selects a plant part that does not primarily store food
- B** selects the plant part where food is primarily stored
- C** selects a plant part that does not primarily store food

**11 L.OR.FI.EB.III.2.m.3a:**  
Explain where plants make and store food

Recognize which part of a specified plant is used to store its food

- A** selects a plant part that does not primarily store food
- B** selects a plant part that does not primarily store food
- C** selects the plant part where food is primarily stored

**12 R.RO.FI.EB.II.1.m.2a:**

Recognize limitations in personal knowledge

Classify the type of scientific information provided by a given statement

- A** selects the correct type of scientific information provided by the statement
- B** selects a type of scientific information not provided by the statement
- C** selects a type of scientific information not provided by the statement

**14 L.EV.FI.EB.III.4.m.1a:**

Explain how fossils provide evidence about the nature of ancient life

Recognize the best reason to explain how dinosaurs became extinct

- A** selects a statement not supported by evidence
- B** selects a reason that would not lead to extinction of all dinosaurs
- C** selects the most tenable statement for dinosaur extinction

**13 L.EV.FI.EB.III.4.m.1a:**

Explain how fossils provide evidence about the nature of ancient life

Recognize scientific facts that are based on fossil evidence

- A** selects a past process for which fossils do not provide evidence
- B** selects a past process for which fossils do not provide evidence
- C** selects the scientific facts that can be derived from fossils

**15 L.EC.FI.EB.III.5.m.5a:**

Identify how humans use and benefit from plant and animal materials

Given 3 drawings of different products, recognize the product that is made from two types of organisms

- A** selects the product that can be made from both types of organisms
- B** selects the product made from just 1 type of organism
- C** selects the product made from just 1 type of organism

**16 L.EC.FI.EB.III.5.m.2a:**  
Identify and/or describe that organisms acquire energy directly or indirectly from sunlight

Distinguish a producer organism among consumer organisms

- A** selects the organism that is a producer
- B** selects an organism that is a consumer
- C** selects an organism that is a consumer

**17 L.EC.FI.EB.III.5.m.1a:**  
Describe common patterns of relationships among populations

Recognize a relationship between organisms in a food chain under a specified condition

- A** selects a condition not likely to occur based on the specified condition
- B** selects the condition likely to occur for the predator population
- C** selects a condition not likely to occur based on the specified condition

**18 L.EC.FI.EB.III.5.m.5a:**  
Identify how humans use and benefit from plant and animal materials

Recognize type of Earth resource used by human beings to produce the listed products

- A** selects a resource that does not provide material to make the products
- B** selects the resource that provides the raw material used to make the products
- C** selects a resource that does not provide material to make the products

**19 P.ME.FI.EB.IV.1.m.1a:**  
Describe and compare objects in terms of weight and width

Based on the illustration, determine if 1 object weighs more than another object

- A** selects an incorrect conclusion about the weight of the 2 objects
- B** selects an incorrect conclusion about the weight of the 2 objects
- C** selects the correct conclusion about the weight of the 2 objects

**20 P.ME.FI.EB.IV.1.m.2a:**

Identify when length, weight, area, volume, or temperature is appropriate to describe objects or substances

Recognize which property of a substance is measured using the specified tool

- A** selects a property of a substance not measured by the tool
- B** selects the property of a substance measured by the specified tool
- C** selects a property of a substance not measured by the tool

**21 P.ME.FI.EB.IV.1.m.2a:**

Identify when length, weight, area, volume, or temperature is appropriate to describe objects or substances

Recognize the correct measure required to carry out a specified task

- A** selects an incorrect measure for the specified task
- B** selects the correct measure which provides the necessary information for the specified task
- C** selects an incorrect measure for the specified task

**22 C.CN.FI.EB.I.1.m.1a:** Identify and/or generate questions about the world based on observation

Recognize how a measure changes for a specified situation

- A** selects a measured change in the opposite direction of the specified change
- B** selects a measured change in the opposite direction of the specified change
- C** selects the measured change that meets the specified change conditions

**23 P.ME.FI.EB.IV.1.m.6a:**

Investigate electrical devices, using instructions and appropriate safety precautions

Recognize best safety precautions when working with electricity

- A** selects an action that is unrelated to electrical safety
- B** selects the best action to assure safety when working with electricity
- C** selects an action that does not provide the best safety when working with electricity

**24 P.ME.FI.EB.IV.1.m.5a:**

Construct simple circuits and/or identify how they work in terms of the flow of current

Recognize examples of complete and incomplete circuits

- A** selects an incorrect example of a complete circuit
- B** selects the correct example of a complete circuit
- C** selects an incorrect example of a complete circuit

**25 P.ME.FI.EB.IV.1.m.6a:**

Investigate electrical devices, using instructions and appropriate safety precautions

Identify the appropriate behavior for using a specified type of electrical equipment

- A** selects an inappropriate behavior for safety using the specified equipment
- B** selects appropriate behavior for safety using the specified equipment
- C** selects an inappropriate behavior for safety using the specified equipment

**26 P.CM.FI.EB.IV.2.m.1a:**

Describe common physical changes in matter

Recognize the physical change that occurs in a specified substance as temperature changes

- A** selects the change that does occur in the substance as temperature changes
- B** selects a change that involves such a minute amount of matter as to not be perceptible
- C** selects a change that is the opposite of what will occur as temperature changes

**27 P.CM.FI.EB.IV.2.m.4a:**

Identify common energy transformations in everyday situations

Recognize which component is necessary for a physical change to occur

- A** selects a component that is not necessarily applicable for a physical change
- B** selects the component that is necessary in the situation for a physical change in matter to occur
- C** selects a component that is not necessarily applicable for a physical change

**28 P.CM.FI.EB.IV.2.m.1a:**

Describe common physical changes in matter

Recognize the process by which matter changes state in the specified situation

- A** selects a process that would not result in the matter disappearing
- B** selects the process by which the matter disappeared from the focus of the specified situation
- C** selects a process that would not result in the matter disappearing

**29 P.MO.FI.EB.IV.3.m.2a:**

Identify forces (push/pull) that speed up, slow down, stop, or change the direction of moving objects

Recognize the relationship between an object's weight and the force of gravity

- A** selects an object representing a misconception regarding the relationship
- B** selects an object representing a misconception regarding the relationship
- C** selects the object representing a correct understanding of the relationship

**30 P.MO.FI.EB.IV.3.m.3a:**

Identify and/or describe patterns of interaction of magnetic materials

Given magnets experiencing a specified type of force, choose the description of the expected result

- A** selects the correct description
- B** selects a description that has nothing to do with magnetic movement
- C** selects a description that is the opposite result of specified force

**31 P.MO.FI.EB.IV.3.m.5a:**  
Identify which simple machine is best used in a given situation

Recognize the type of simple machine used and described in the drawing provided

- A** selects a simple machine that is not described or used in the drawing
- B** selects the simple machine used as displayed and described in the drawing
- C** selects a simple machine that is not described or used in the drawing

**32 P.WV.FI.EB.IV.4.m.1a:**  
Recognize how sounds travel through different media

Recognize the difference in sound intensity among different sound sources

- A** selects a sound not having the greatest intensity at its source
- B** selects a sound not having the greatest intensity at its source
- C** selects the sound that has the greatest intensity at its source

**33 E.GE.FI.EB.V.1.m.1a:** Identify and/or describe major features of the earth's surface using maps

Based on a map, recognize the Earth-surface feature that is at most of Michigan's borders

- A** selects the Earth surface feature that borders most of Michigan
- B** selects an Earth surface feature that does not border Michigan
- C** selects an Earth surface feature that does not border Michigan

**34 E.GE.FI.EB.V.1.m.2a:** Identify and/or describe major events in the rock cycle

Recognize the process that produces the specified Earth surface change

- A** selects the process that produces the specified Earth surface change
- B** selects a process that does not produce the specified Earth surface change
- C** selects a process that does not produce the specified Earth surface change

**35 E.HY.FI.EB.V.2.m.2a:** Explain the behavior of surface water

Identify the process by which liquid water changed its state of matter in the specified situation

- A** selects the process by which the water changed its state of matter
- B** selects a process by which water did not change its state of matter in the specified situation
- C** selects a process by which water did not change its state of matter in the specified situation

**36 E.HY.FI.EB.V.2.m.4a:** Identify sources of pollution in water

Recognize the pollution consequence of the specified action between 2 different bodies of water

- A** selects an unlikely but possible consequence that does not pollute
- B** selects a likely consequence of how material from 1 body of water could pollute another body of water
- C** selects an unlikely consequence that would be considered an accident and not pollution

**37 E.SS.FI.EB.V.4.m.1a:** Compare and contrast characteristics of the earth and other planets

Recognize planetary conditions necessary for life as we know and understand it

- A** selects a condition on a planet not apparently necessary for life
- B** selects a condition on a planet not apparently necessary for life
- C** selects the condition on a planet that is necessary for life as we know it

**38 E.SS.FI.EB.V.4.m.2a:** Demonstrate a basic and general awareness about the motion of the earth

Recognize a feature of the Sun when compared to the same feature of other objects in its solar system

- A** selects an incorrect statement about the Sun's feature
- B** selects the correct statement about the Sun's feature compared to the same feature of other solar-system objects
- C** selects an incorrect statement about the Sun's feature

**39 E.AW.FI.EB.V.3.m.1a:**  
Interpret temperature,  
precipitation, and cloud cover  
information

Recognize the purpose of a  
specified weather measurement  
tool

- A** selects information  
not provided by the  
measurement tool
- B** identifies the information  
about a weather condition  
that the measurement tool  
provides
- C** selects information  
not provided by the  
measurement tool

**40 E.AW.FI.EB.V.3.e.2ADDm:**  
Identify and/or describe  
seasonal changes in Michigan's  
weather

Identify the season of the  
year most associated with  
occurrence of the specified  
weather condition

- A** selects the season during  
which the specified  
weather condition is most  
likely to occur
- B** selects a season during  
which the specified  
weather condition is less  
frequent
- C** selects a season during  
which the specified  
weather condition is less  
frequent





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