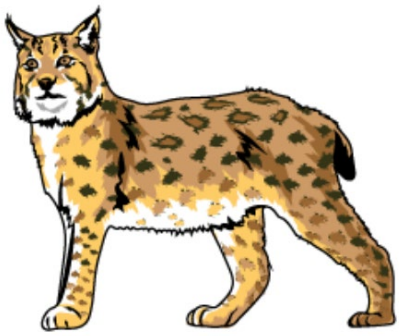
2024 MCAS Informational Webinar on Scoring Constructed-Responses

Sample Constructed-Response Item Training Pack

Science and Technology/Engineering
Grade 5
Lynx Adaptations

This item has two parts.

The picture shows a lynx.



Lynx are wild cats that have spotted fur, sharp claws, furry ears, and wide paws. Lynx live in forests that are cold many months of the year. They hunt rabbits and other small animals.

Part A

From the information given, identify one trait that provides camouflage for the lynx in its environment. Explain how the trait provides camouflage for the lynx.

Part B

Describe one way the claws of the lynx help it survive in its environment.

Scoring Guide

Score	Description
2	The response demonstrates a thorough understanding that animals have external structures that support their survival. The response correctly identifies one trait that provides camouflage for the lynx in its environment and clearly explains how the trait provides camouflage for the lynx. The response also clearly describes one way the claws of the lynx help it survive in its environment.
1	The response demonstrates a partial understanding that animals have external structures that support their survival.
0	The response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Scoring Notes

Part A (1 point)

The fur color (brown) or pattern (spots) will help the lynx blend in with the trees/forest/environment.

Note: For score going from 0–1, a creditable explanation without the identification is acceptable.

Part B (1 point)

A response many include (any one):

- catch/kill prey/get food
- defend itself from attack [by predators]
- climbing (trees, rocks)
- run faster

Each part is worth 1 point.

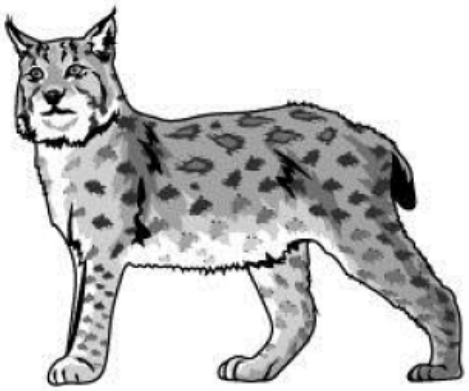
Anchor Set of Student Responses (with scores)

Lynx Adaptations

Anchor Score 2

This question has two parts.

The picture shows a lynx.



Lynx are wild cats that have spotted fur, sharp claws, furry ears, and wide paws. Lynx live in forests that are cold many months of the year. They hunt rabbits and other small animals.

Part A

From the information given, identify one trait that provides camouflage for the lynx in its environment. Explain how the trait provides camouflage for the lynx.

The trait that provides camouflage for the Lynx is it's spotted fur. The reason the Lynx's fur provides camoflage is beacuse the spotted fur can help it blend into the bushes.

Part B

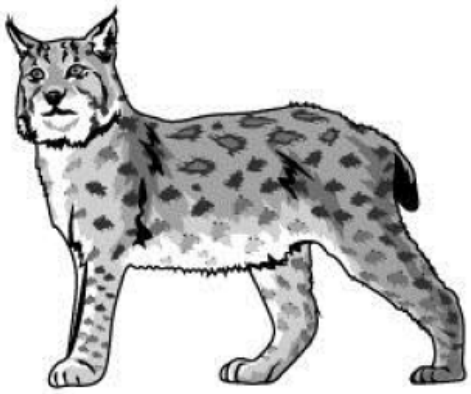
Describe one way the claws of the lynx help it survive in its environment.

The Lynx's claws help fthe Lynx survive by catching prey, for example the Lynx can use it's claws to pounce on it's prey and dig it's claws into the prey.

Anchor Score 1

This question has two parts.

The picture shows a lynx.



Lynx are wild cats that have spotted fur, sharp claws, furry ears, and wide paws. Lynx live in forests that are cold many months of the year. They hunt rabbits and other small animals.

Part A

From the information given, identify one trait that provides camouflage for the lynx in its environment. Explain how the trait provides camouflage for the lynx.

The camofaluge is the snow because when it snows it will get on the Lynx because it is cold weather.

Part B

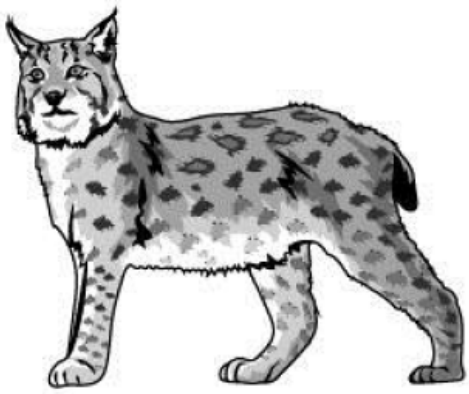
Describe one way the claws of the lynx help it survive in its environment.

The claws of the lynx help survive because it can defend itself or hunt it's prey with there claws.

Anchor Score 0

This question has two parts.

The picture shows a lynx.



Lynx are wild cats that have spotted fur, sharp claws, furry ears, and wide paws. Lynx live in forests that are cold many months of the year. They hunt rabbits and other small animals.

Part A

From the information given, identify one trait that provides camouflage for the lynx in its environment. Explain how the trait provides camouflage for the lynx.

a lynx is a wild cat that has spotted fur,sharp claws,furry ears, and wide paws.

Part B

Describe one way the claws of the lynx help it survive in its environment.

it camoulflages.

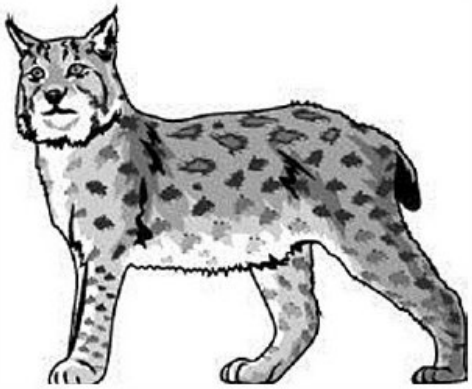
Set of Student Responses without Scores (for educator practice)

Lynx Adaptations

Response A

This question has two parts.

The picture shows a lynx.



Lynx are wild cats that have spotted fur, sharp claws, furry ears, and wide paws. Lynx live in forests that are cold many months of the year. They hunt rabbits and other small animals.

Part A

From the information given, identify one trait that provides camouflage for the lynx in its environment. Explain how the trait provides camouflage for the lynx.

The trait that provides camouflage for the lynx is the spotted fur.

Part B

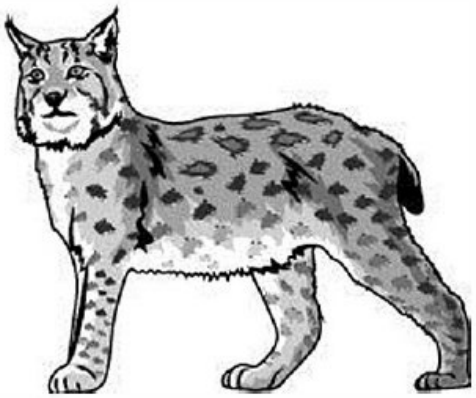
Describe one way the claws of the lynx help it survive in its environment.

The claws help the lynx survive in its environment by helping it catch prey.

Response B

This question has two parts.

The picture shows a lynx.



Lynx are wild cats that have spotted fur, sharp claws, furry ears, and wide paws. Lynx live in forests that are cold many months of the year. They hunt rabbits and other small animals.

Part A

From the information given, identify one trait that provides camouflage for the lynx in its environment. Explain how the trait provides camouflage for the lynx.

his black dots because he can blend in with the wood of the trees

Part B

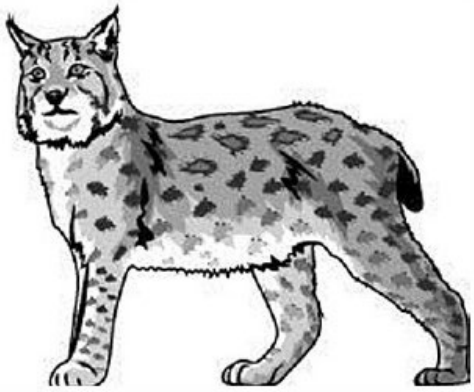
Describe one way the claws of the lynx help it survive in its environment.

it can hold its prey and kill it and it wont slip away.

Response C

This question has two parts.

The picture shows a lynx.



Lynx are wild cats that have spotted fur, sharp claws, furry ears, and wide paws. Lynx live in forests that are cold many months of the year. They hunt rabbits and other small animals.

Part A

From the information given, identify one trait that provides camouflage for the lynx in its environment. Explain how the trait provides camouflage for the lynx.

to hide in dead grass

Part B

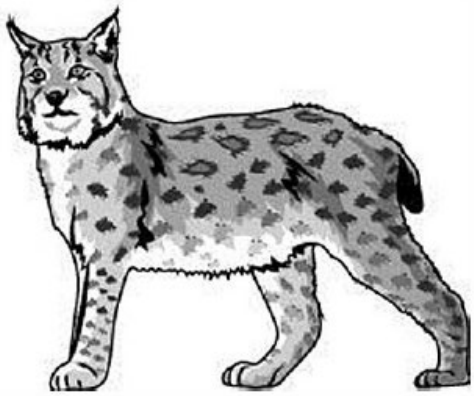
Describe one way the claws of the lynx help it survive in its environment.

to help dig

Response D

This question has two parts.

The picture shows a lynx.



Lynx are wild cats that have spotted fur, sharp claws, furry ears, and wide paws. Lynx live in forests that are cold many months of the year. They hunt rabbits and other small animals.

Part A

From the information given, identify one trait that provides camouflage for the lynx in its environment. Explain how the trait provides camouflage for the lynx.

The coldness can help the lynx get ready for the cold wether

Part B

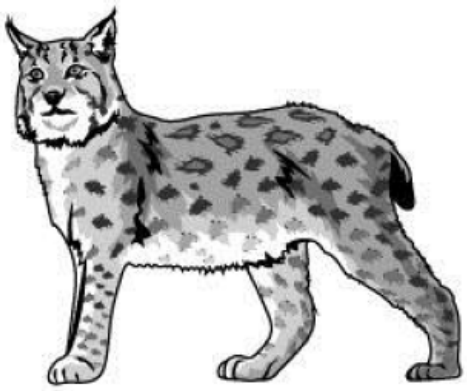
Describe one way the claws of the lynx help it survive in its environment.

Sharp claws and wide paws

Response E

This question has two parts.

The picture shows a lynx.



Lynx are wild cats that have spotted fur, sharp claws, furry ears, and wide paws. Lynx live in forests that are cold many months of the year. They hunt rabbits and other small animals.

Part A

From the information given, identify one trait that provides camouflage for the lynx in its environment. Explain how the trait provides camouflage for the lynx.

One trait that provides camouflage is it's spotted fur. This can be used by hiding throughout the forests.

Part B

Describe one way the claws of the lynx help it survive in its environment.

One way that a lynx's claws is that it can be used as a weapon if other predators attack it.

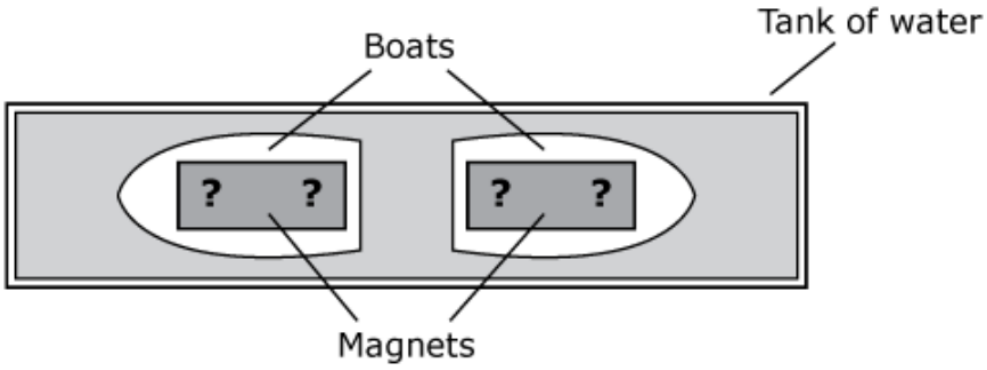
2024 MCAS Informational Webinar on Scoring Constructed-Responses

Sample Constructed-Response Item Training Pack

Science and Technology/Engineering
Grade 5
Magnets–Toy Boat

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

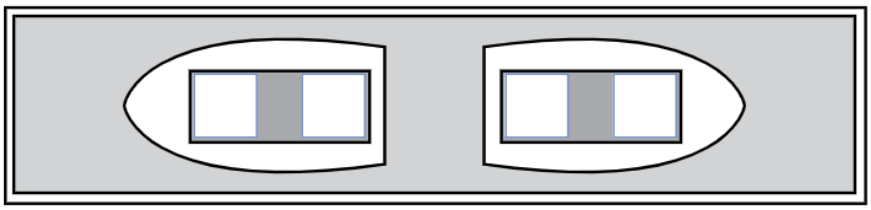


Part A

When the student places the boats near each other in the tank, they move toward each other.

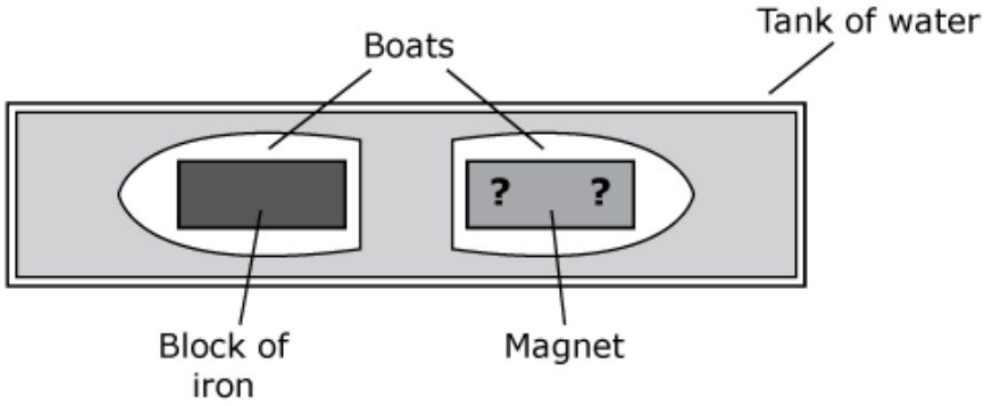
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

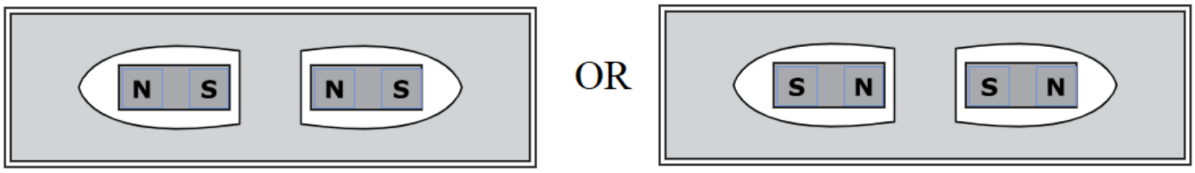
Scoring Guide

Score	Description
3	The response demonstrates a thorough understanding of the forces between two magnets based on their orientations. The response correctly identifies the poles of each magnet. The response clearly describes how the boats will move after one magnet is replaced with a block of iron and clearly explains the reasoning. The response also correctly identifies the form of energy that magnetic energy was converted into and clearly explains the reasoning.
2	The response demonstrates a partial understanding of the forces between two magnets based on their orientations.
1	The response demonstrates a minimal understanding of the forces between two magnets based on their orientations.
0	The response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
Blank	No response.

Scoring Notes

Part A

Machine scored: will show opposite poles facing each other



Part B

The boats will move toward each other because (any one of the following):

- a magnet attracts/pulls iron.
- iron attracts/pulls a magnet.
- iron has a magnetic pull/iron is magnetic.

Part C

The stored magnetic energy was converted into kinetic energy/mechanical energy because the boats were moving.

Note: Accept “motion energy” as kinetic energy.

Each part is worth 1 point.

Note: For a score going from 0-1, a correct description in Part B and identification in Part C, without explanations, is creditable.

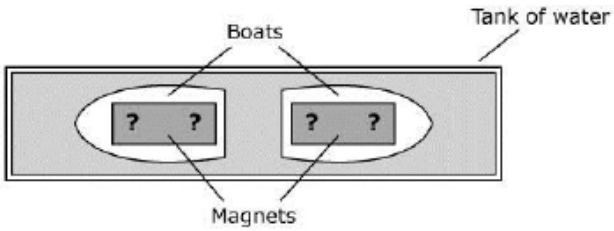
Anchor Set of Student Responses (with scores)

Magnets–Toy Boat

Anchor Score 3

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

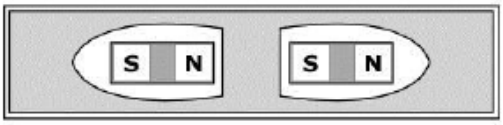


Part A

When the student places the boats near each other in the tank, they move toward each other.

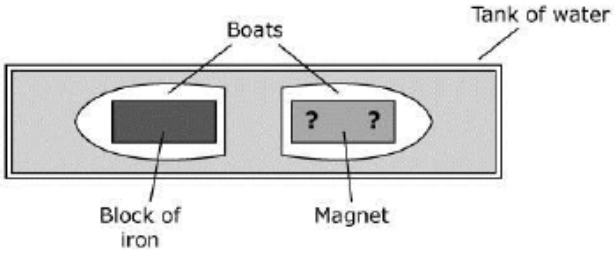
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

The Magnet boat will move toward the boat with the block of iron placed on top of it because the magnet will be attracted to the block of iron.

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

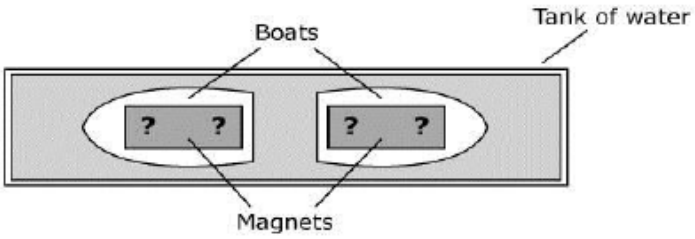
Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

The stored magnetic energy is converted into kinetic energy because the boats start moving towards each other.

Anchor Score 2

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

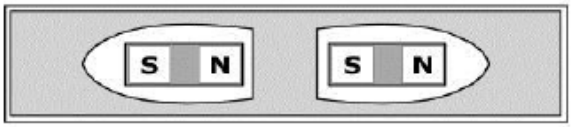


Part A

When the student places the boats near each other in the tank, they move toward each other.

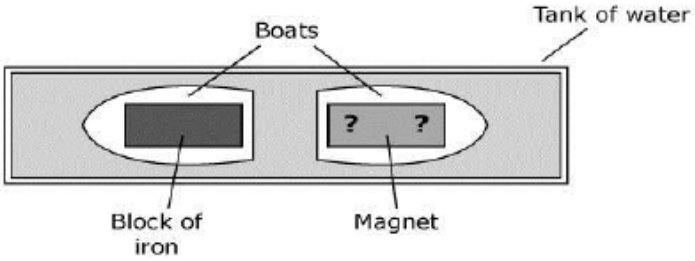
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

The boats will move closer to each other because magnets attract to iron.

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

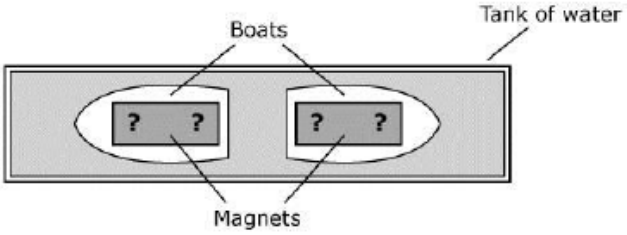
Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

It is converted to push away magnetic energy.

Anchor Score 1

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

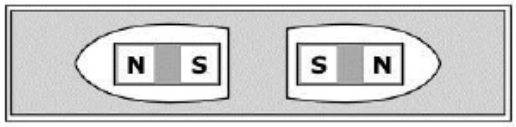


Part A

When the student places the boats near each other in the tank, they move toward each other.

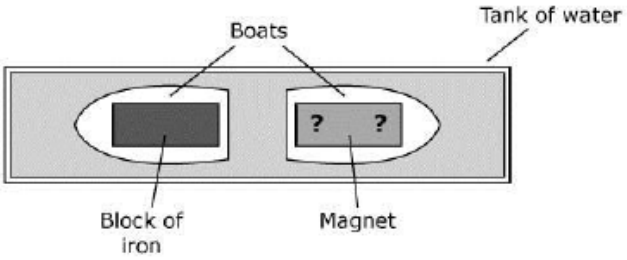
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

The boats move closer together because the magnet attracts the piece of iron.

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

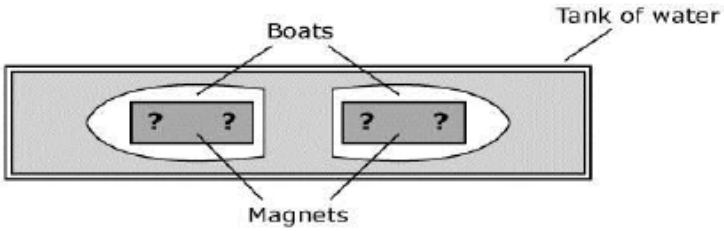
Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

The form of energy that the stored magnetic energy is converted to electricity.

Anchor Score 0

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

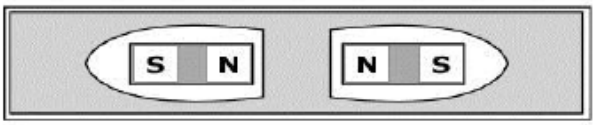


Part A

When the student places the boats near each other in the tank, they move toward each other.

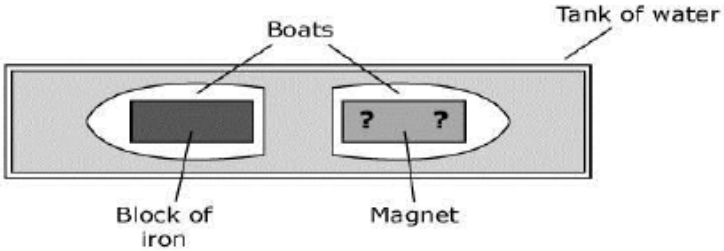
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

I think the boats stay in place because the block of iron and the magnet don´t connect to each other.

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

The magnetic energy converted into no magnetic energy because it had no magnetic energy.

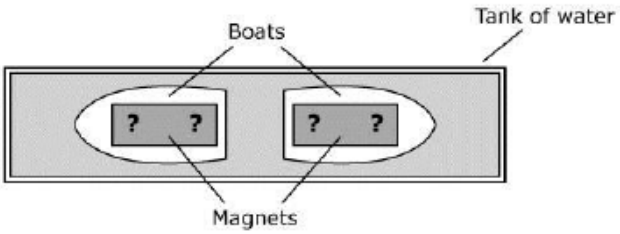
Set of Student Responses without Scores (for educator practice)

Magnets–Toy Boat

Response A

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

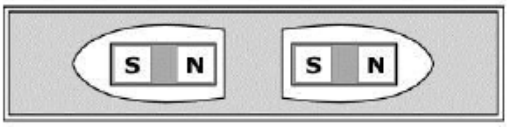


Part A

When the student places the boats near each other in the tank, they move toward each other.

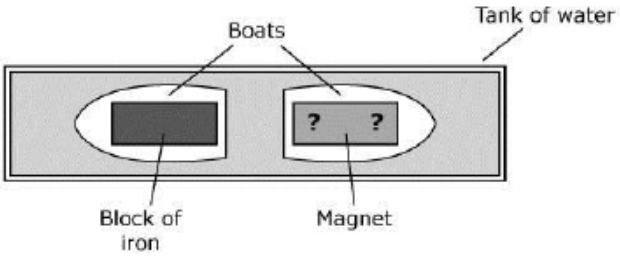
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

I think that the boats will still move toward each other. This is because iron is magnetic.

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

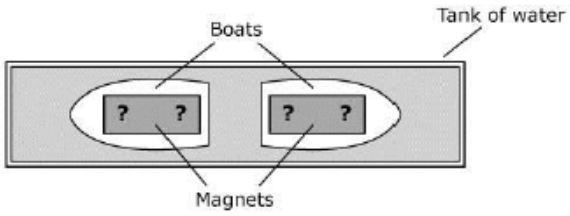
Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

I think stored magnetic energy was converted into electrical energy becuase electricity is used in magnets.

Response B

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

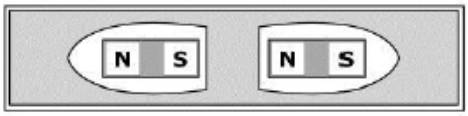


Part A

When the student places the boats near each other in the tank, they move toward each other.

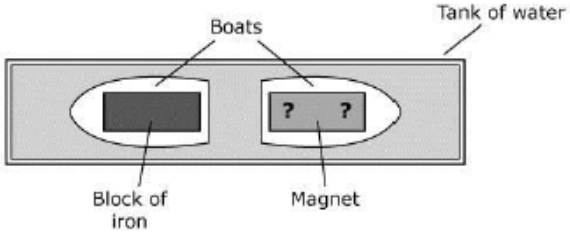
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

The boats will move towards each other. They will move towards each other because iron has a magnetic pull which will make the two boats come near each other.

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

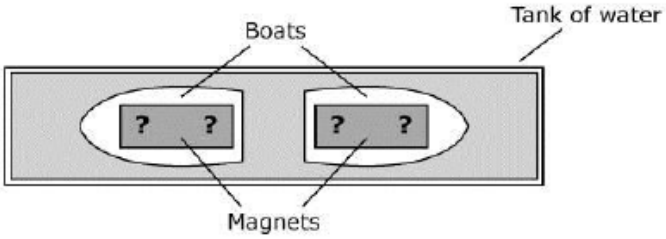
Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

In the investigation, stored magnetic energy is converted into another form of energy as mechanical energy. The magnetic energy turns into magnetic energy because it when the two boats start moving, it is mechanical energy. Mechanical energy is identified as something moving and in this case it's the boat thats moving towards another boat. Therefore, the magnetic energy is converted into the form of mechanical energy.

Response C

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

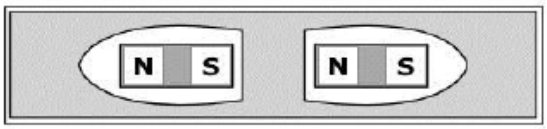


Part A

When the student places the boats near each other in the tank, they move toward each other.

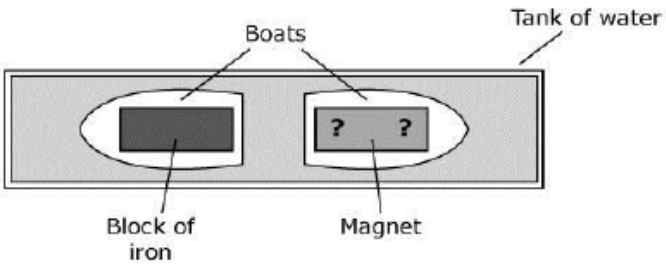
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

They will move away from each other because iron isn't a magnet.

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

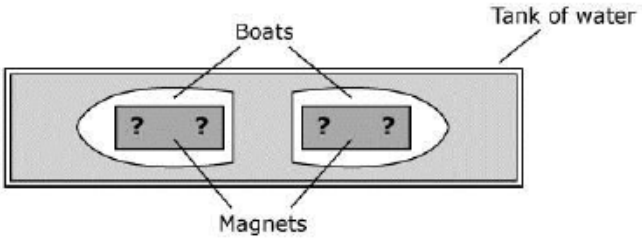
Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

It is converted to electric energy because it used to be kinetic energy.

Response D

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

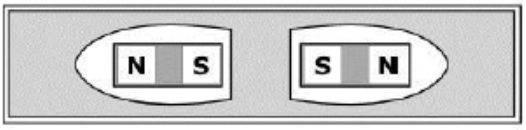


Part A

When the student places the boats near each other in the tank, they move toward each other.

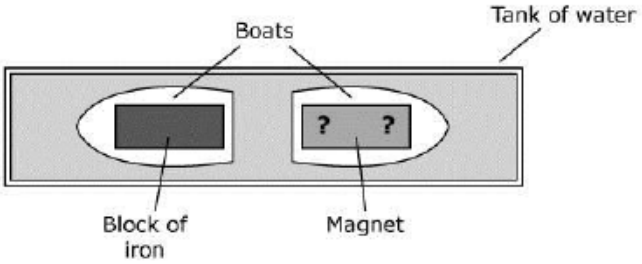
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

the iron boat would sink because it is heaver

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

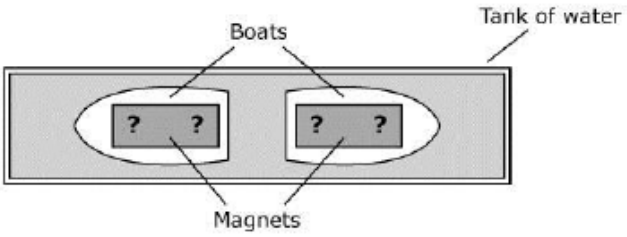
Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

the magnet would flout

Response E

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

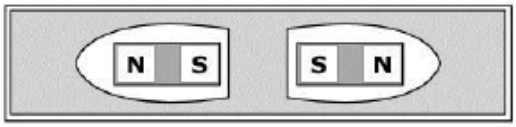


Part A

When the student places the boats near each other in the tank, they move toward each other.

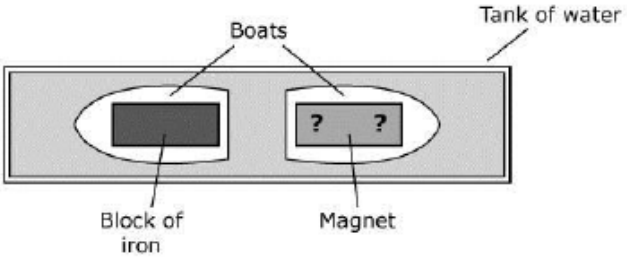
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

i think after the student replaces one of the magnets with a block of iron the magnet should pull twards the iron.

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

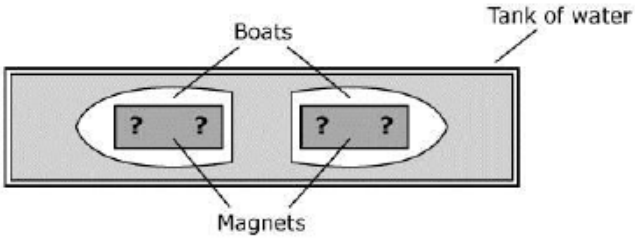
Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

well, i think the magnetic energy turns into kinetic energy.

Response F

This question has three parts.

A student is investigating how magnets work. The student has two plastic toy boats. A bar magnet is placed in each boat. The poles of the magnets are not identified. The student then places the boats in a long, narrow tank of water. The sides of the tank prevent the boats from turning. The diagram shows the boats in the tank of water and a magnet in each boat.

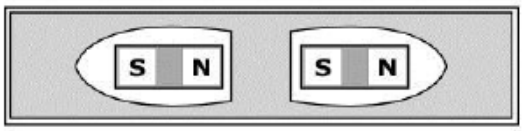


Part A

When the student places the boats near each other in the tank, they move toward each other.

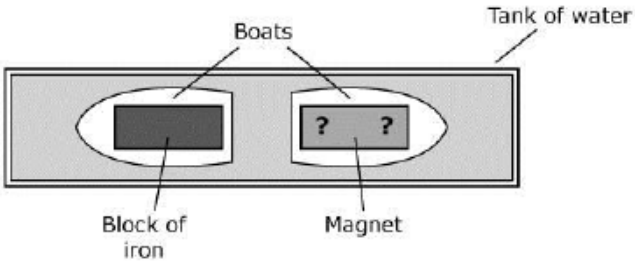
Drag and drop a label into each box to identify the poles of the magnets.

N S



Part B

The student replaces the magnet in one of the boats with a block of iron, as shown.



Describe how the boats move after the student replaces the magnet with a block of iron. Explain your reasoning.

the boats will still move closer to each other becase iron is attracted to magnets.

Part C

In the investigation, stored magnetic energy is converted into another form of energy.

Identify the form of energy that the stored magnetic energy is converted into. Explain your reasoning.

Kenetic energy.