

**Force and movement- The role of force**

A+

**Warmer**

1. What are the effects of force ?

位置改變, 形狀改變

2. What are the two types of force ?

超距力, 接觸力

**Concept**

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
spring(彈簧)	weight(砝碼)	

1. contact force is a type of force that needs the objects to touch for the force to work.

2. The length(長度) of the spring is related to the force.

3. A force can change the shape of an object.

4. Magnetic force(磁力) is a non-contact force.

5. weight can measure(測量) force.

6. A force can make an object move.

**Content**

**Cup Sliding Game**

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

Yes ~~No~~, 是 contact force

2. What are the effects of the force on the water battle?

位置改變

3. How do you think you can perform better?

控制力度 ?

Think: Let's read aloud together.

1. The action of force can change the shape and state of motion of an object.

2. There are 2 types of forces: contact force and non-contact force.

3. When the force of the spring is different, the length of extension is also different.

A++

Force and movement- The role of force

Warmer

1. What are the effects of force?

shape change 位置改變

2. What are the two types of force?

non-contact force  
contact force

Concept

force(力) x	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力) 非接觸力	contact force(接觸力)
spring(彈簧)	weight(砝碼) 觸力	

1. contact force is a type of force that needs the objects to touch for the force to work.
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Content

Cup Sliding Game

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force? contact force
2. What are the effects of the force on the water bottle? 移動
3. How do you think you can perform better? 用力  
調出力道

Think: Let's read aloud together.

1. The action of force can change the shape and state of motion of an object.
2. There are 2 types of forces: contact force and non-contact force.
3. When the force of the spring is different, the length of extension is also different.

長度

**Force and movement- The role of force**

**Warmer**

1. What are the effects of force?

The shape change or move away

2. What are the two types of force?

It's non-contact and contact force.

**Concept**

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
spring(彈簧)	weight(砝碼)	

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**Content**

**Cup Sliding Game**

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

This game is contact force, because we need to touch

2. What are the effects of the force on the water <sup>bottle?</sup>

The water pull <sup>the</sup> bottle down and move

3. How do you think you can perform better?

I think I can do <sup>more</sup> great, because I can use <sup>at another time</sup>

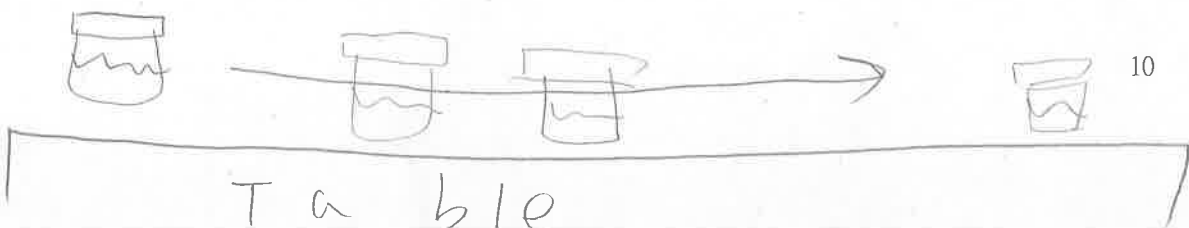
Think: Let's read aloud together.

1. The action of force can change the shape and state of motion of an object.

2. There are 2 types of forces: contact force and non-contact force.

3. When the force of the spring is different, the length of extension is also different.

First, put the bottle on the table, then, pull it



## Force and movement- The role of force

## Warmer

1. What are the effects of force? (力會影響什麼?)

shape 位置

2. What are the two types of force?

non-contact force and contact force

## Concept

force(力)	object(物體)	influence(影響)
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## Cup Sliding Game

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

IS is contact force

2. What are the effects of the force on the water bottle?

位置移動。

水壺

3. How do you think you can perform better?

調整力道。

## Think: Let's read aloud together.

- The action of force can change the shape and state of motion of an object.
- There are 2 types of forces: contact force and non-contact force.
- When the force of the spring is different, the length of extension is also different.

**Force and movement- The role of force**

At

**Warmer**

1. What are the effects of force ?

位置和形狀的改變

2. What are the two types of force ?

non-contact force  
contact force

**Concept**

force(力)	object(物體)	influence(影響)
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Weight 5. spring can measure(測量) force.

6. A force can make an object move.

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**Cup Sliding Game**

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After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force? contact force

2. What are the effects of the force on the water bottle? A force can make an object move

3. How do you think you can perform better? 調整力道

**Think: Let's read aloud together.**

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**Force and movement- The role of force**

**Warmer**

1. What are the effects of force ?

位置改變

形狀改變

2. What are the two types of force ?

接觸力和超距力

**Concept**

force(力)	object(物體)	influence(影響)
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After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

Yes, is contact force.

2. What are the effects of the force on the water <sup>bottle</sup> ~~bottle~~?

位置改變

3. How do you think you can perform better?

位置移動, 調整力道

**Think: Let's read aloud together.**

1. The action of force can change the shape and state of motion of an object.

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3. When the force of the spring is different, the length of extension is also different.

長度

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**Force and movement- The role of force**

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1. What are the effects of force ?

因為位置改變 形狀改變

2. What are the two types of force ?

超距力和接觸力

**Concept**

force(力)	object(物體)	influence(影響)
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Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

yes, contact force

2. What are the effects of the force on the water battle?

位置改變

3. How do you think you can perform better?

位置移動，調整力道

**Think: Let's read aloud together.**

- The action of force can change the shape and state of motion of an object.
- There are 2 types of forces: contact force and non-contact force.
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## Force and movement- The role of force

## Warmer

1. What are the effects of force ?

Shape change or move.

2. What are the two types of force ?

Non-contact force and contact force.

## Concept

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
spring(彈簧)	weight(砝碼) n. 名詞	

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## Cup Sliding Game

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

This is a contact force game. bottle

2. What are the effects of the force on the water bottle?

It's pull the bottle down and move.

3. How do you think you can perform better?

I think I can push it harder.

Think: Let's read aloud together.

- The action of force can change the shape and state of motion of an object.
- There are 2 types of forces: contact force and non-contact force.
- When the force of the spring is different, the length of extension is also different.



A++

## Force and movement- The role of force

## Warmer

1. What are the effects of force ?

The shape change or move away ✓

2. What are the two types of force ?

Non-contact force and contact force ✓

## Concept

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
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- contact force is a type of force that needs the objects to touch for the force to work. ✓
- The length(長度) of the spring is related to the force. ✓
- A force can change the shape of an object. ✓
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- Weight can measure(測量) force. ✓
- A force can make an object move. ✓

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## Cup Sliding Game

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

This game is contact force. ✓

2. What are the effects of the force on the water ~~bottle~~ bottle?

The water pull the bottle down and more. ✓

3. How do you think you can perform better?

I think I can use more force. ✓

Think: Let's read aloud together.

- The action of force can change the shape and state of motion of an object.
- There are 2 types of forces: contact force and non-contact force.
- When the force of the spring is different, the length of extension is also different.

## Force and movement- The role of force

A 14

### Warmer

1. What are the effects of force ?

Shape change or move ✓

2. What are the two types of force ?

non-contact force and contact force ✓

### Concept

force(力)	object(物體)	influence(影響)
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Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

This game is a contact force game ✓

2. What are the effects of the force on the water bottle?

It pull the bottle down and move. ✓

3. How do you think you can perform better?

I think I can push it harder. ✓

Think: Let's read aloud together.

1. The action of force can change the shape and state of motion of an object.
2. There are 2 types of forces: contact force and non-contact force.
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A++

## Force and movement- The role of force

### Warmer

1. What are the effects of force ?

形狀改變 and move

2. What are the two types of force ?

接觸力 (contact force) and 超距力 (non-contact force)

### Concept

force(力)	object(物體)	influence(影響)
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#### Cup Sliding Game

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

This game is contact force.

2. What are the effects of the force on the water bottle?

It's pull the bottle down and move.

3. How do you think you can perform better?

I think I can 推大力一些。

#### Think: Let's read aloud together.

1. The action of force can change the shape and state of motion of an object.
2. There are 2 types of forces: contact force and non-contact force.
3. When the force of the spring is different, the length of extension is also different.

Att

**Force and movement- The role of force**

**Warmer**

1. What are the effects of force? *力會造成 二影 形狀改變、位子變。*

2. What are the two types of force? *力有哪 2 種方式 A: 超距力、接觸力 (non-contact force) (contact force)*

**Concept**

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
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**Cup Sliding Game**

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?  
*接觸力*
2. What are the effects of the force on the water <sup>bottle</sup> bottle?  
*接觸力對水優等瓶造成了位子改變*
3. How do you think you can perform better?  
*請不要用優等瓶裝水請可以裝水的可裝水的水。*

**Think: Let's read aloud together.**

1. The action of force can change the shape and state of motion of an object.
2. There are 2 types of forces: contact force and non-contact force.
3. When the force of the spring is different, the length of extension is also different.

## Force and movement- The role of force

A+

## Warmer

1. What are the effects of force?

行狀改變 move.

2. What are the two types of force?

超距力、接觸力 ✓

## Concept

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
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1. contact force is a type of force that needs the objects to touch for the force to work. ✓
2. The length(長度) of the spring is related to the force. ✓
3. A force can change the shape of an object. ✓
4. Magnetic force(磁力) is a non-contact force. ✓
5. weight can measure(測量) force. ✓
6. A force can make an object move. ✓

## Content

## Cup Sliding Game

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

接觸力 ✓

2. What are the effects of the force on the water battle?

The water battle of the force whose effects is 運動情形 ✓

3. How do you think you can perform better?

Every time gonna play this game ✓

Think: Let's read aloud together.

1. The action of force can change the shape and state of motion of an object.
2. There are 2 types of forces: contact force and non-contact force.
3. When the force of the spring is different, the length of extension is also different.

A+7

**Force and movement- The role of force**

**Warmer**

力會造成其他物體是怎樣

1. What are the effects of force? 形狀改、位置改變。

2. What are the two types of force?

contact force and non-contact force

**Concept**

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
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**Content**

**Cup Sliding Game**

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

接觸力(contact force)

2. What are the effects of the force on the water-bottle?

接觸力讓優格瓶位置改變

3. How do you think you can perform better?

一直玩到倒

賊賊

**Think: Let's read aloud together.**

1. The action of force can change the shape and state of motion of an object.
2. There are 2 types of forces: contact force and non-contact force.
3. When the force of the spring is different, the length of extension is also different.

## Force and movement- The role of force

## Warmer

1. What are the effects of force ?

The shapes change, the direction will move  
 (形狀) (運動情形改變)

2. What are the two types of force ?

The non-contact force and contact force.

## Concept

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
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Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

This game is a contact force.

2. What are the effects of the force on the water <sup>bottle</sup> bottle?

The water bottle of the force whose effects is (the direction: move).

3. How do you think you can perform better?

Every time gonna play this game.

## Think: Let's read aloud together.

- The action of force can change the shape and state of motion of an object. ✓
- There are 2 types of forces: contact force and non-contact force. ✓
- When the force of the spring is different, the length of extension is also different. ✓

## Force and movement- The role of force

## Warmer

1. What are the effects of force ?

形狀、位置

狀 ( ) ( ) ( )

2. What are the two types of force ?

Non-contact force

contact force

## Concept

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
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Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

接觸力

2. What are the effects of the force on the water bottle?

接觸力造成位置的移動

3. How do you think you can perform better?

調整力道

## Think: Let's read aloud together.

- The action of force can change the shape and state of motion of an object.
- There are 2 types of forces: contact force and non-contact force.
- When the force of the spring is different, the length of extension is also different.



A++

**Force and movement- The role of force**

**Warmer**

1. What are the effects of force?

The shape change and move ✓

2. What are the two types of force?

non-contact force and contact force ✓

**Concept**

force(力)	object(物體)	influence(影響) ?
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Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

Yes, it's contact force because we use hand to move bottle ✓

2. What are the effects of the force on the water bottle?

It moving ✓

3. How do you think you can perform better?

I think I can practice ✓

**Think: Let's read aloud together.**

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2. There are 2 types of forces: contact force and non-contact force.
3. When the force of the spring is different, the length of extension is also different.

A+

**Force and movement- The role of force**

Warmer 力會有什麼影響  
1. What are the effects of force?

1. shape mirr

2. What are the two types of force?

non-contact force and contact force

**Concept**

force(力)	object(物體)	influence(影響)
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After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

This is contact force.

2. What are the effects of the force on the water bottle?

It makes it moving.

3. How do you think you can perform better?

I can practice.

**Think: Let's read aloud together.**

- The action of force can change the shape and state of motion of an object.
- There are 2 types of forces: contact force and non-contact force.
- When the force of the spring is different, the length of extension is also different.

**Force and movement- The role of force**

A++

**Warmer**

1. What are the effects of force ?

The shape change and move.

2. What are the two types of force ?

non-contact force and contact force

**Concept**

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
spring(彈簧)	weight(砝碼)	

1. contact force is a type of force that needs the objects to touch for the force to work.

2. The length(長度) of the spring is related to the force.

3. A force can change the shape of an object.

4. Magnetic force(磁力) is a non-contact force.

5. weight can measure(測量) force.

6. A force can make an object move.

**Content**

**Cup Sliding Game**

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

It's contact force.

2. What are the effects of the force on the water bottle?

It change it's move.

3. How do you think you can perform better?

I can practice.

**Think: Let's read aloud together.**

1. The action of force can change the shape and state of motion of an object.

2. There are 2 types of forces: contact force and non-contact force.

3. When the force of the spring is different, the length of extension is also different.

## Force and movement- The role of force

A++

## Warmer

1. What are the effects of force ?

The shape change and move.

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non contact force and contact force.

## Concept

force(力)	object(物體)	influence(影響)
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## Content

## Cup Sliding Game

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

This is contact force.

2. What are the effects of the force on the water bottle?

It makes it moving.

3. How do you think you can perform better?

Every day play this game.

Think: Let's read aloud together.

- The action of force can change the shape and state of motion of an object.
- There are 2 types of forces: contact force and non-contact force.
- When the force of the spring is different, the length of extension is also different.



## Force and movement- The role of force

A++

## Warmer

1. What are the effects of force?

The shape change. And the ~~shape~~ move. ✓

2. What are the two types of force?

non-contact force and contact force. ✓

## Concept

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
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## Content

## Cup Sliding Game

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

It's contact force. ✓

2. What are the effects of the force on the water bottle battle? ✓

It change it's move. ✓

3. How do you think you can perform better?

I think I can practice. ✓

Think: Let's read aloud together.

1. The action of force can change the shape and state of motion of an object.

2. There are 2 types of forces: contact force and non-contact force.

3. When the force of the spring is different, the length of extension is also different.

A<sup>++</sup>

**Force and movement- The role of force**

**Warmer**

1. What are the effects of force ?

位置改變、形狀改變

2. What are the two types of force ?

超距力、接觸力

**Concept**

force(力)	object(物體)	influence(影響)
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- A force can change the shape of an object.
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**Content**

**Cup Sliding Game**

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

- Is this game a contact force or a non-contact force?  
It's contact force.
- What are the effects of the force on the water bottle?  
推動它讓它移動
- How do you think you can perform better?  
1. 比比你強的人更努力練習  
2. 練習練習再練習

**Think: Let's read aloud together.**

- The action of force can change the shape and state of motion of an object.
- There are 2 types of forces: contact force and non-contact force.
- When the force of the spring is different, the length of extension is also different.

**Force and movement- The role of force**

A++

**Warmer**

1. What are the <sup>影響</sup> effects of <sup>力</sup> force?

The shape <sup>改變</sup> change and <sup>移動</sup> move.

2. What are the two types of force?

contact force and non-contact force.

**Concept**

force(力)	object(物體)	influence(影響)
shape(形狀)	non-contact force (超距力)	contact force(接觸力)
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3. A force can change the shape of an object.

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**Content**

**Cup Sliding Game**


Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

It's Contact force!

2. What are the effects of the force on the water <sup>bottle</sup> ~~bottle~~?

Touch the <sup>影響</sup> water bottle, it can moving. 

3. How do you think you can perform better?

My force be small! <sup>控制</sup> my force.

**Think: Let's read aloud together.**

1. The action of force can change the shape and state of motion of an object.

2. There are 2 types of forces: contact force and non-contact force.

3. When the force of the spring is different, the length of extension is also different.

彈簧

長度



**Force and movement- The role of force**

**Warmer**

1. What are the effects of force ?

位置改變, 形狀改變

2. What are the two types of force ?

超距力, 接觸力 contact force

**Concept**

force(力)	object(物體)	influence(影響)
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**Content**

**Cup Sliding Game**

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

contact force, bottle

2. What are the effects of the force on the water bottle?

It makes it moving, 影響, 讓水向側面移動

3. How do you think you can perform better?

努力練習像鄭老師一樣

**Think: Let's read aloud together.**

- The action of force can change the shape and state of motion of an object.
- There are 2 types of forces: contact force and non-contact force.
- When the force of the spring is different, the length of extension is also different.



**Force and movement- The role of force**

**Warmer**

1. What are the effects of force? A++

The shape change and move.

2. What are the two types of force?

1. Non-contact force

2. contact force

**Concept**

force(力)	object(物體)	influence(影響)
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**Content**

**Cup Sliding Game**

Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

It's contact force

2. What are the effects of the force on the water bottle?

It make bottle moving!

3. How do you think you can perform better?

控制 my force!

**Think: Let's read aloud together.**

(And practice! practice! practice!)

1. The action of force can change the shape and state of motion of an object.

2. There are 2 types of forces: contact force and non-contact force.

3. When the force of the spring is different, the length of extension is also different.

## Force and movement- The role of force

A74

### Warmer

1. What are the effects of force?

形狀位置改變

2. What are the two types of force?

non-contact force and contact force

### Concept

force(力)	object(物體)	influence(影響)
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Using the bottle filled with water, slide the game on the table, who can get closer to the edge of the table is the winner.

After the game, discuss the following questions with the group

1. Is this game a contact force or a non-contact force?

contact force!

2. What are the effects of the force on the water battle?

It moving!

3. How do you think you can perform better?

努力練習!

**Think: Let's read aloud together.**

1. The action of force can change the shape and state of motion of an object.

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3. When the force of the spring is different, the length of extension is also different.