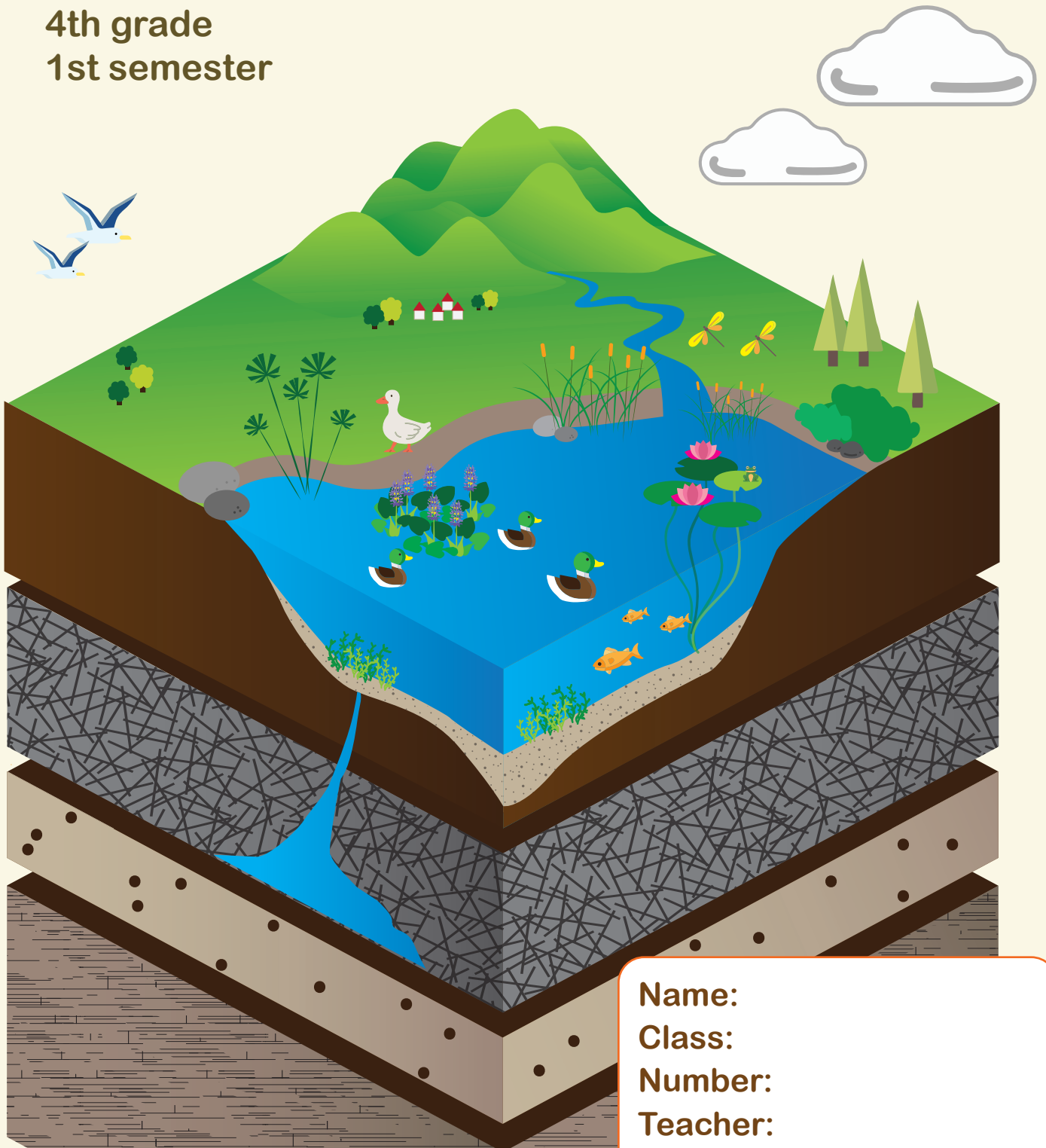


Science Notes

4th grade
1st semester



Name:

Class:

Number:

Teacher:



Preface 前言

在「2030 雙語國家政策發展藍圖」中強調「厚植國人英語力」、「提升國家競爭力」(國家發展委員會, 2020); 而如何提升國民英語力以增加國際競爭力, 是學校教育中努力的目標。

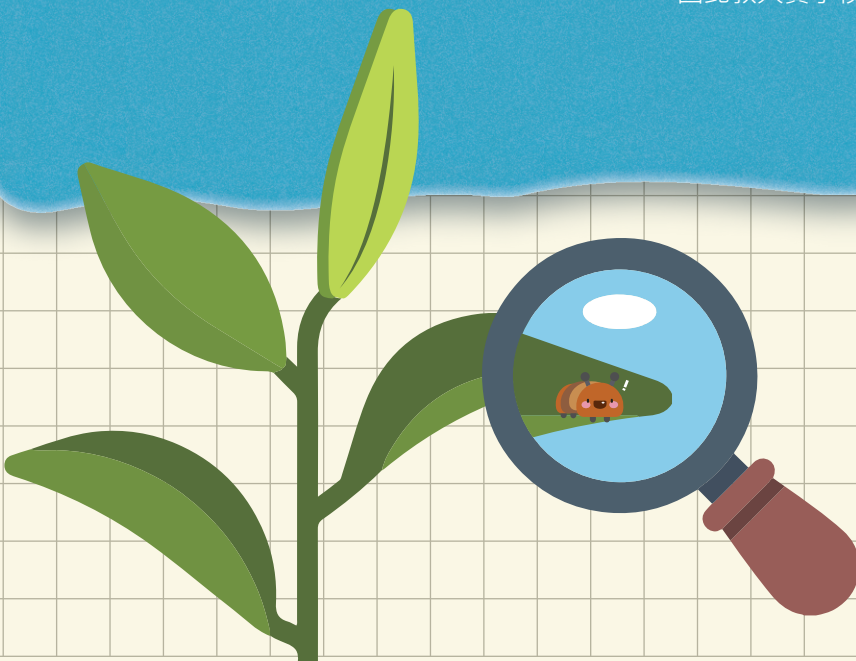
有感於雙語教育及近年來我國積極培養學童STEAM(Science, Technology, Engineering, Arts, and Mathematics)結合科學、技術、工程、藝術, 以及數學跨學科素養的教育趨勢, 本校自108學年度開始試辦自然課程雙語教學, 以英語營造生活情境中的科學, 透過趣味科學實驗增進學童以英語來進行科學探究的興趣與能力。

這本科學筆記本是本校自然課程雙語教學團隊~陳美卿、林雨慶、劉容昇、范瑋庭以及2022年7月剛到任的外師Leonawen 等教師所共同設計的; 國立臺北教育大學雙語教學研究中心協助自然科學英語內容校對、編排及印製; 期望學童可以紮紮實實的學習自然科學知識, 更透過以英語指導科學實驗步驟, 動手做實驗來激發學童的科學探究潛能、啟發學童善用英語進行科學領域學習的能力, 厚植學童的科學力及英語力。

國北教大實小校長

魏勤捷

2022.08



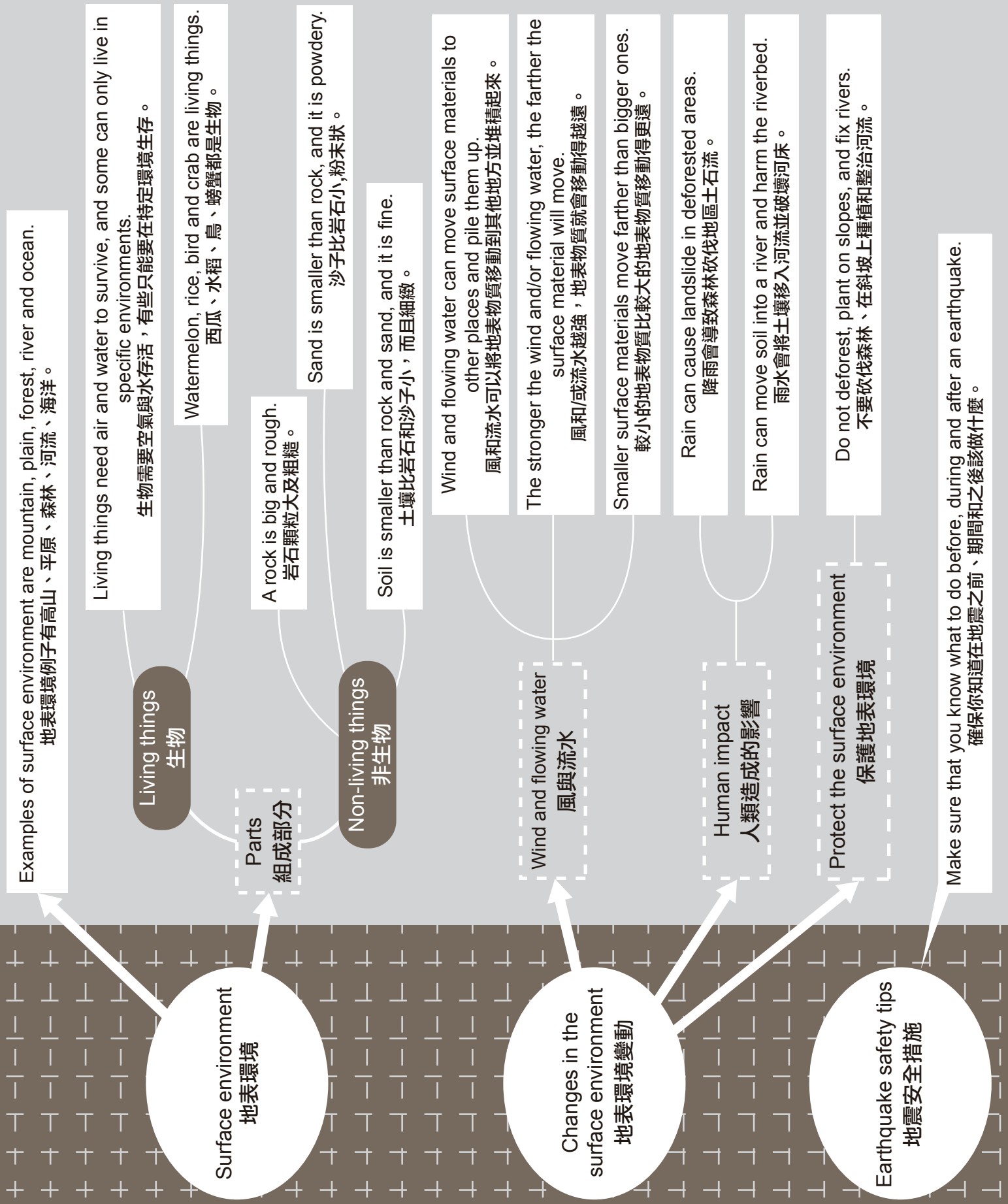


Unit 1
**Stillness and Movement
on the Surface**

地表的靜與動



Stillness and Movement on the Surface
地表的靜與動



Surface environment
地表環境

Changes in the surface environment
地表環境變動

Earthquake safety tips
地震安全措施

Examples of surface environment are mountain, plain, forest, river and ocean.
地表環境例子有高山、平原、森林、河流、海洋。

Living things
生物

Non-living things
非生物

Parts
組成部分

Wind and flowing water
風與流水

Human impact
人類造成的影響

Protect the surface environment
保護地表環境

Make sure that you know what to do before, during and after an earthquake.
確保你知道在地震之前、期間和之後該做什麼。

Living things need air and water to survive, and some can only live in specific environments.
生物需要空氣與水存活，有些只能在特定環境生存。

Watermelon, rice, bird and crab are living things.
西瓜、水稻、鳥、螃蟹都是生物。

A rock is big and rough.
岩石顆粒大及粗糙。

Soil is smaller than rock and sand, and it is fine.
土壤比岩石和沙子小，而且細緻。

Wind and flowing water can move surface materials to other places and pile them up.
風和流水可以將地表物質移動到其他地方並堆積起來。

The stronger the wind and/or flowing water, the farther the surface material will move.
風和/或流水越強，地表物質就會移動得越遠。

Smaller surface materials move farther than bigger ones.
較小的地表物質比較大的地表物質移動得更遠。

Rain can cause landslide in deforested areas.
降雨會導致森林砍伐地區土石流。

Rain can move soil into a river and harm the riverbed.
雨水會將土壤移入河流並破壞河床。

Do not deforest, plant on slopes, and fix rivers.
不要砍伐森林、在斜坡上種植和整治河流。

Unit 1 Stillness and Movement on the Surface

地表的靜與動

日期： /

應聽懂及認讀的生字

<input type="checkbox"/> 1. 靜止	stillness	<input type="checkbox"/> 14. 風	wind
<input type="checkbox"/> 2. 移動	movement	<input type="checkbox"/> 15. 活水/流水	flowing water
<input type="checkbox"/> 3. 地表/表面	surface	<input type="checkbox"/> 16. 地表物質	surface material
<input type="checkbox"/> 4. 環境	environment	<input type="checkbox"/> 17. 土石流	landslide
<input type="checkbox"/> 5. 生物	living thing	<input type="checkbox"/> 18. 森林砍伐(n)	deforestation
<input type="checkbox"/> 6. 空氣	air	<input type="checkbox"/> 19. 森林砍伐(v)	deforest
<input type="checkbox"/> 7. 水	water	<input type="checkbox"/> 20. 地震	earthquake
<input type="checkbox"/> 8. 生存(n)	survival	<input type="checkbox"/> 21. 安全	safety
<input type="checkbox"/> 9. 生存(v)	survive	<input type="checkbox"/> 22. 急救箱	survival kit
<input type="checkbox"/> 10. 非生物	non-living thing	<input type="checkbox"/> 23. 演練	drill
<input type="checkbox"/> 11. 礫石	rock	<input type="checkbox"/> 24. 逃生路線	escape route
<input type="checkbox"/> 12. 沙子	sand	<input type="checkbox"/> 25. 電梯	elevator
<input type="checkbox"/> 13. 土壤	soil	<input type="checkbox"/> 26. 電器設備	electrical equipment

1. Different surface environments have different characteristics.

不同的地表環境有不同的特點。

2. Wind and flowing water can change the surface environment.

風與活水會改變表面環境。

3. To protect the environment, do not deforest, plant on slopes, and fix rivers.

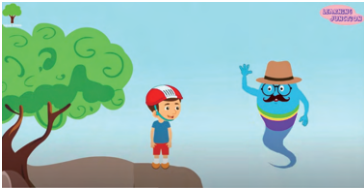
為了保護環境，不要砍伐森林，不要在斜坡上種植，不要整治河流。

4. Make sure that you know what to do before, during and after an earthquake.

確保你知道在地震之前、期間和之後該做什麼。

Science Videos Unit 1

1-1 Types of Landforms



1-1 Animal Habitats | Animal Homes



1-1 Rocks, Pebbles and Sand



1-1 Earth Materials



1-2 Sand Dune Formation and the Rock Cycle



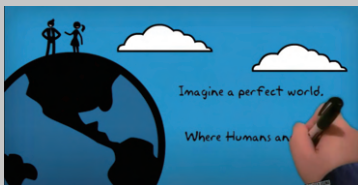
1-2 Weathering and Erosion for Kids



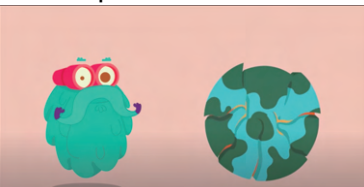
1-2 Weathering, Erosion and Deposition Experiment



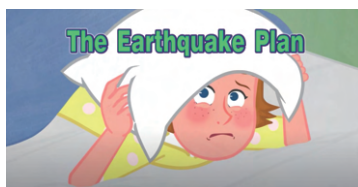
1-2 Habitat Destruction

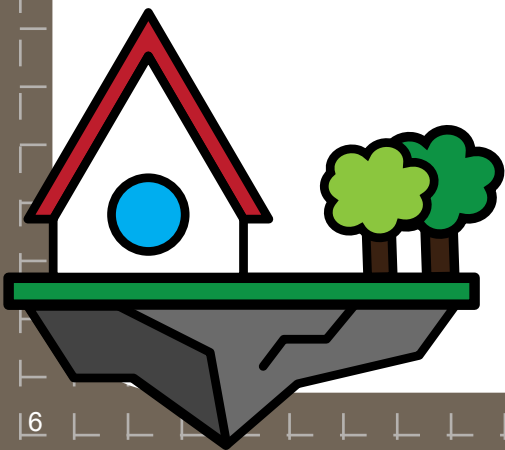


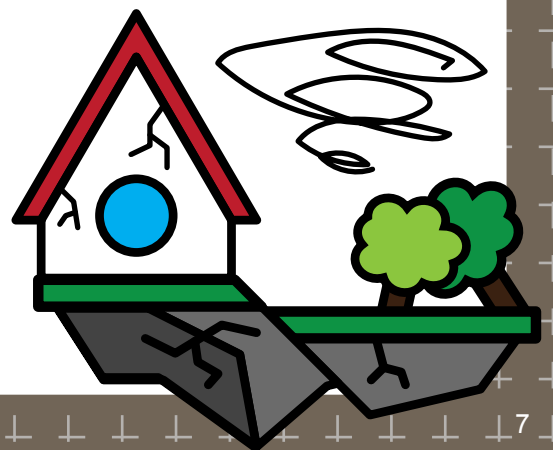
1-3 What is an Earthquake?

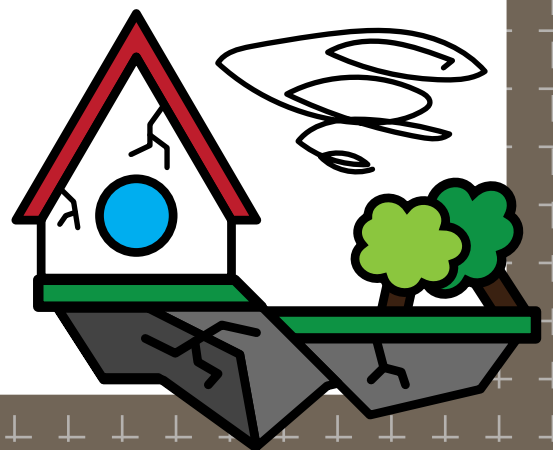


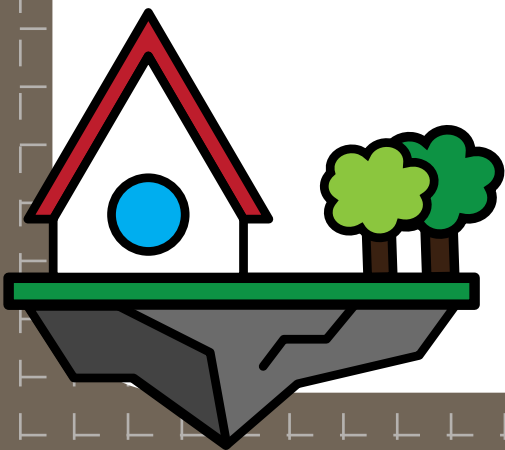
1-3 The Earthquake Plan











Landforms and bodies of water

Look at the pictures below.

Draw ▲ inside the if it is a landform.

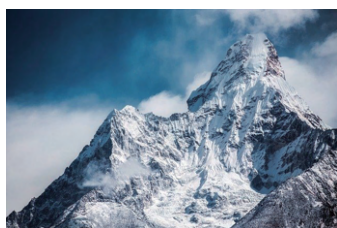
Draw ● inside the if it is a body of water.

Draw a line to match each picture to its name.



•

• **mountain** (高山)



•

• **paddy field** (水田)



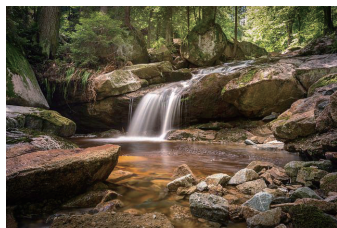
•

• **pond** (池塘)



•

• **river** (河流)

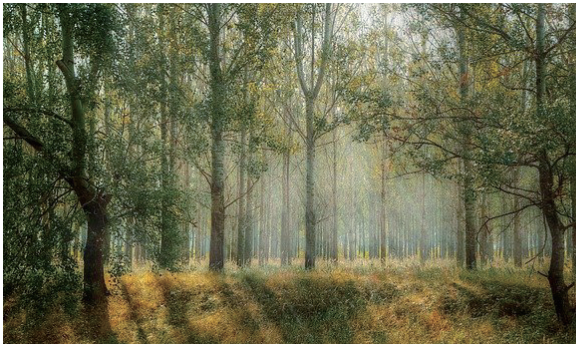


•

• **sea** (海)

Surface materials

Which surface material is shown in each picture?
Write **rock**, **sand** or **soil** inside the .



Changes in the surface environment

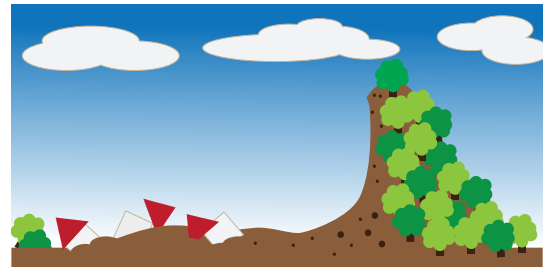
Draw a line to match each **cause** (原因) to its **effect** (結果).

Cause (原因)

Effect (結果)



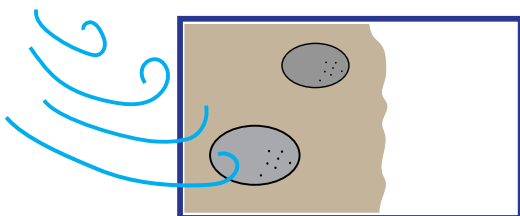
heavy rain in a deforested area



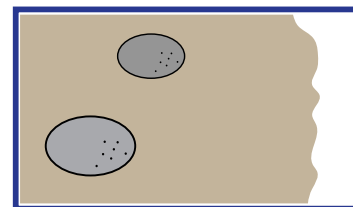
landslide



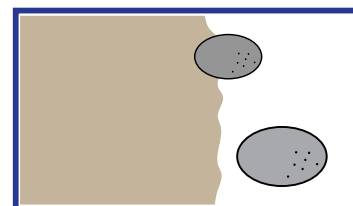
more trees grow



wind blows through soil and rocks



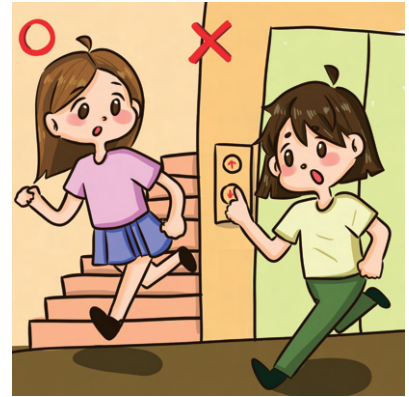
soil travels farther



rock travels farther

Earthquake safety tips

When should you do these earthquake safety tips?
Write **before**, **during** or **after** inside the .



Circle the things that you should put inside your earthquake survival kit.



first aid kit



food
(by Getty Images)



whistle

Let's review

Fill in the blanks using the words below.

deforest
soil

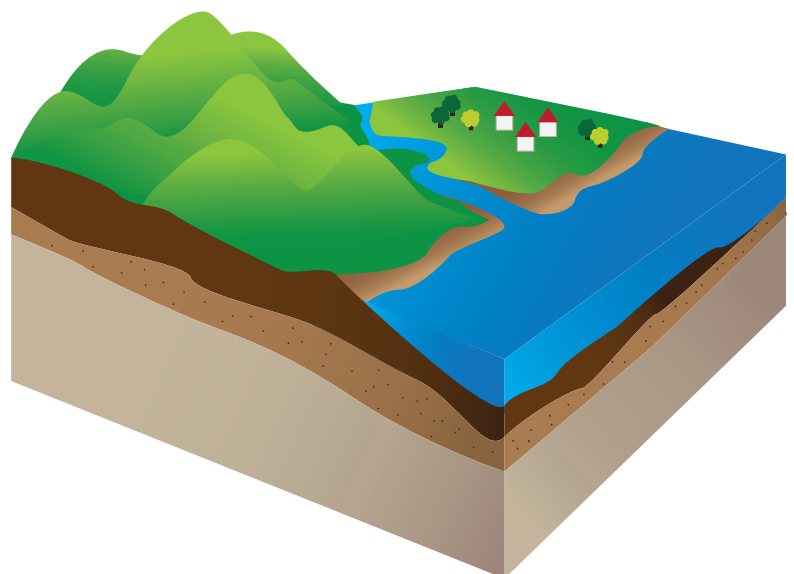
earthquake
water

non-living things
wind

The surface environment is made up of living things and _____. Living things need air and _____ to survive. Non-living things include rock, sand and _____.

The surface environment can change because of _____, flowing water and human activities. To protect the surface environment, do not _____, plant on slopes, and fix rivers.

The surface environment can also change because of earthquakes. Make sure that you know what to do before, during and after an _____.





Unit 2

Aquatic Life and the Environment

水生生物與環境

Aquatic environments
水域環境

Examples of aquatic environment are stream, lake, paddy field, pond, intertidal zone and ocean.
水域環境的例子有溪流、湖泊、稻田、池塘、潮間帶和海洋。

When going to an aquatic environment, you can bring a fishing net, picture book, binoculars and bucket. Wear suitable clothing.
到水域環境時，可以準備撈網、圖鑑、望遠鏡、水桶及穿著適合的服裝。

Floating plant
漂浮性植物

The leaves float on water and the roots hang in the water.
葉子浮在水面上，根懸在水面上。

water lettuce, duckweed, common water hyacinth
大萍、浮萍、布袋蓮

Floating-leaf plant
浮葉性植物

The flowers are above water, the leaves float on water and the roots are in the soil.
花在水面上，葉子浮在水面上，根在土裡。

water lily, yellow water-lily
睡蓮、臺灣萍蓬草

Emergent plant
挺水性植

The flowers and leaves are above water and the roots are in the soil.
花、葉在水之上，根在土裡。

lotus, cattail
荷花、香蒲

Submerged plant
沉水性植

The leaves are below water and the roots are in the soil.
葉子在水下，根在土壤。

large-flowered waterweed
水蘊草

Aquatic animals
水生動物

Examples of aquatic animal are fish, snail, crab, turtle, tadpole, frog and shrimp.
水生動物的例子有魚、蝸牛、螃蟹、烏龜、蝌蚪、青蛙和蝦。

Harmful for the environment
有害環境

Throwing garbage in aquatic environments causes pollution.
將垃圾扔在水域環境中會造成污染。

Overuse of pesticides causes pollution.
過度使用農藥會造成污染。

Wastewater from factories causes coral bleaching.
來自工廠的廢水會導致珊瑚白化。

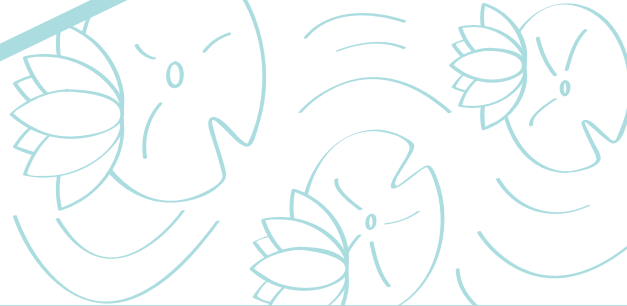
Take care of the environment
愛護環境

Do not throw trash in aquatic environments.
不要將垃圾扔在水域環境中。

Do not catch aquatic animals.
不要捕捉水生動物。

Join beach cleaning activities.
參加淨灘活動。

Aquatic Life and the Environment
水生生物與環境



Unit 2 Aquatic Life and the Environment

水生生物與環境

日期： / /

應聽懂及認讀的生字

- 1. 水生的 aquatic
- 2. 水域環境 aquatic environment
- 3. 溪流 stream
- 4. 湖泊 lake
- 5. 水田 paddy field
- 6. 池塘 pond
- 7. 潮間帶 intertidal zone
- 8. 海洋 ocean

- 9. 水生植物 aquatic plant
- 10. 漂浮性植物 floating plant
- 11. 浮葉性植物 floating-leaf plant
- 12. 挺水性植物 emergent plant
- 13. 沉水性植物 submerged plant
- 14. 葉柄 petiole
- 15. 空心的 hollow
- 16. 葉子 leaf/leaves
- 17. 花 flower
- 18. 莖 stem
- 19. 根 root

- 20. 軀幹 body
- 21. 肺 lungs
- 22. 鰓蓋 gill cover
- 23. 鰭 fin
- 24. 汙染 pollution
- 25. 殺蟲劑 pesticide
- 26. 廢/污水 wastewater
- 27. 珊瑚礁 coral reef
- 28. 珊瑚白化 coral bleaching



1. Aquatic plants have special structures to help them live in water.

水生植物有特殊構造幫助它們在水中生活。

2. Aquatic animals have special movement and breathing structures to help them live in water.

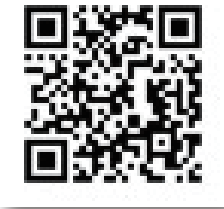
水生動物有特殊的運動和呼吸結構來幫助它們生活在水中。

3. We must take care of the aquatic environment.

我們必須愛護水環境。

Science Videos Unit 2

2-1 13 Animals Live on Trees



2-1 Explore Aquatic Habitats



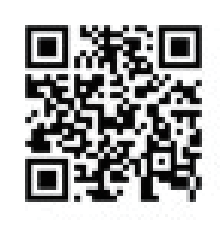
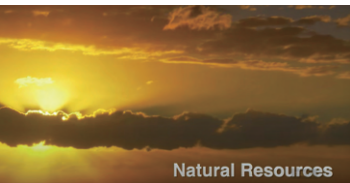
2-2 CBSE: Class 4: Science: Aquatic Plants



2-2 Animals that Live Both in Land and Water



2-3 Natural Resources for Kids



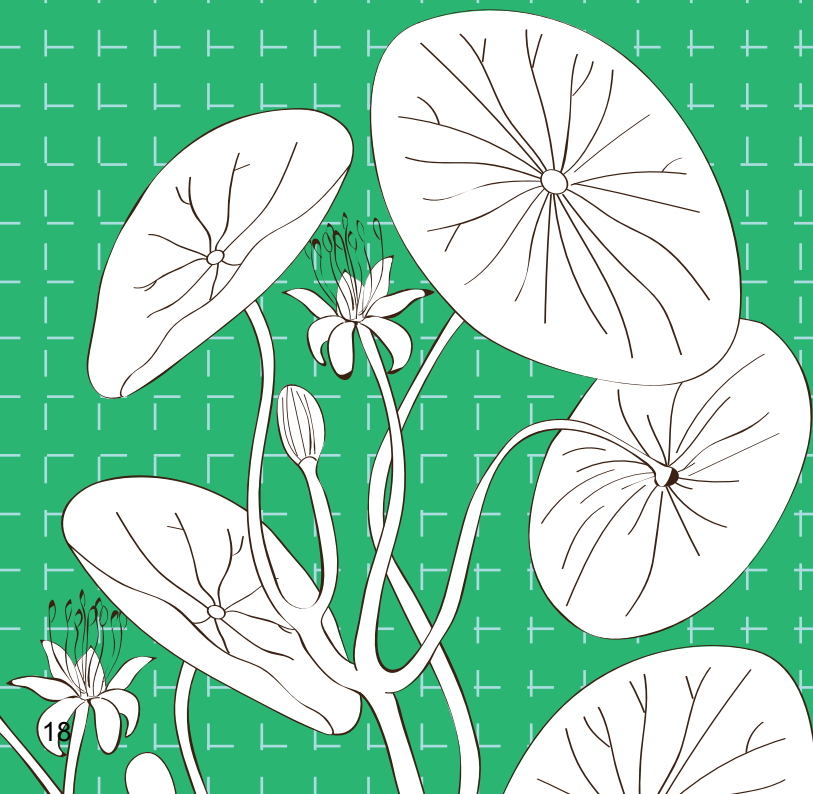
2-3 Natural Resources eLearning Video Lesson for Kids

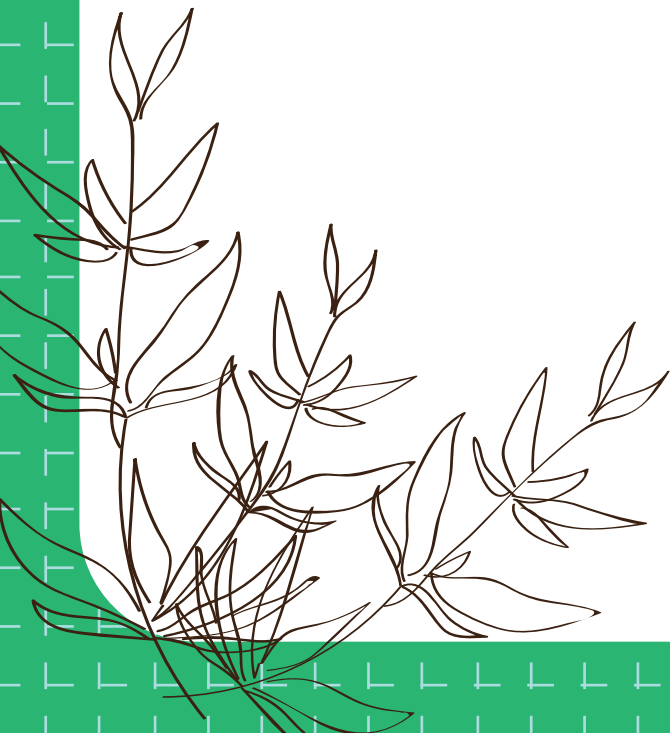


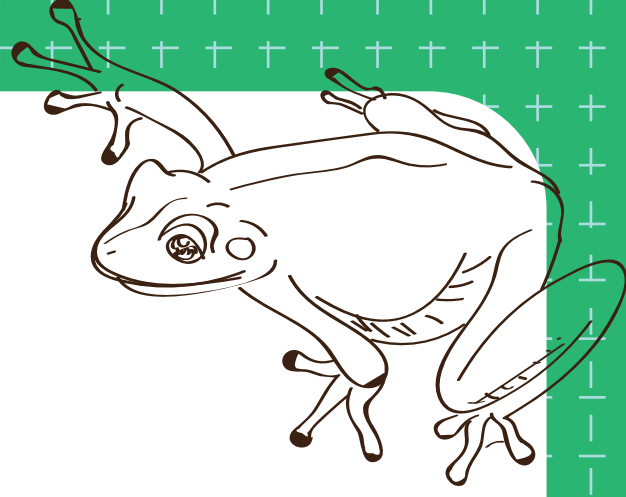
2-3 Save Our Ocean from Plastic Pollution

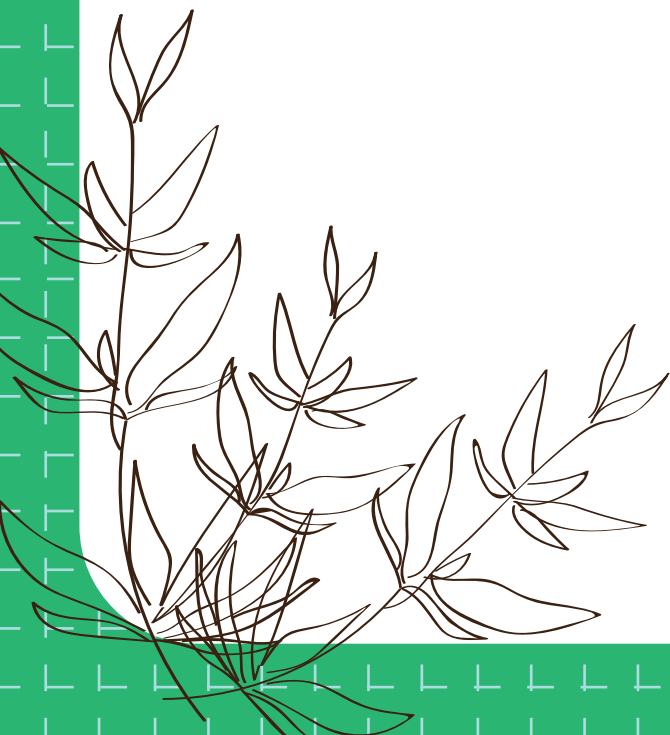


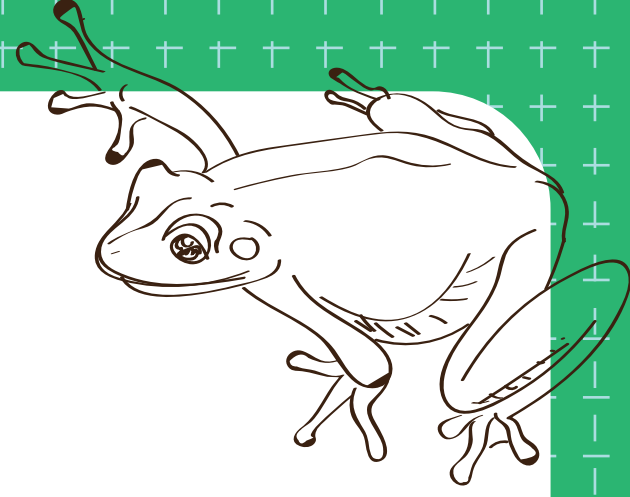
2-3 How Kids Can Protect Water Sources





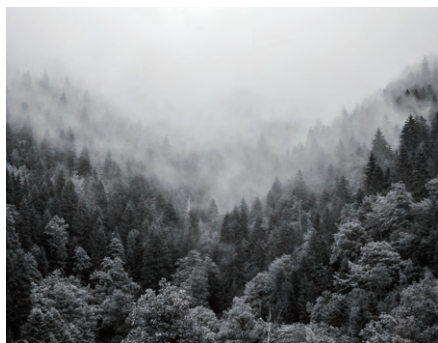






Aquatic environments

Color all aquatic environments.



forest
(森林)



grassland
(草地)



intertidal zone
(潮間帶)



lake
(湖泊)



mountain
(高山)



paddy field
(水田)



pond
(池塘)



river
(河流)



sea
(海)

Aquatic plants

Match each aquatic plant to its type.



large-flowered waterweed
(水蘊草)

emergent plant
(挺水性植物)



lotus
(荷花)

floating plant
(漂浮性植物)



water lettuce
(大萍)

floating-leaf plant
(浮葉性植物)

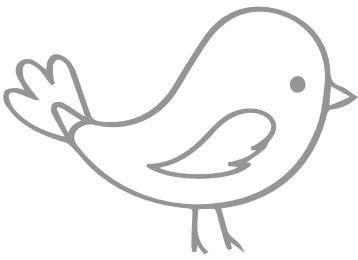


water lily
(睡蓮)

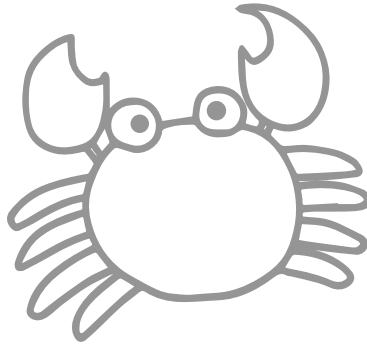
submerged plant
(沉水性植物)

Aquatic animals

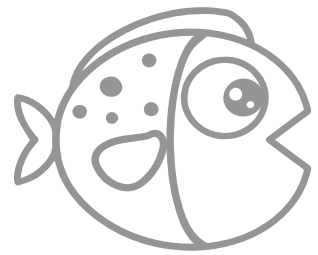
Color all aquatic animals.



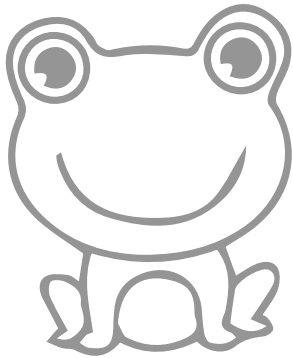
bird (鳥)



crab (螃蟹)



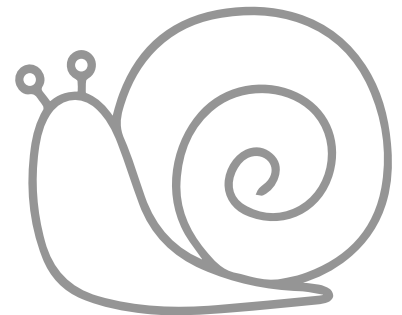
fish (魚)



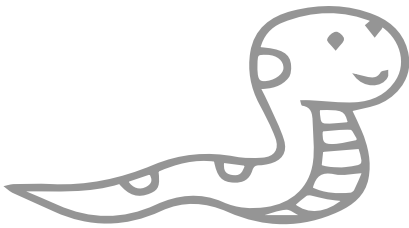
frog (青蛙)



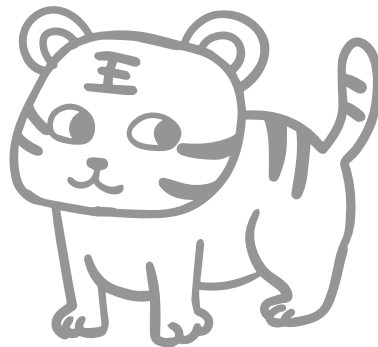
octopus (章魚)



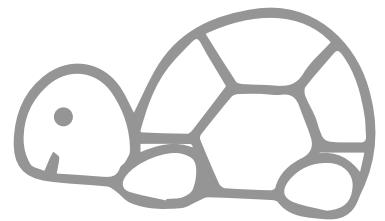
snail (螺)



snake (蛇)



tiger (老虎)



turtle (烏龜)

Care for the environment

Circle the activities that you can do to take care of the aquatic environment.



join beach cleaning activities
(by Getty Images)

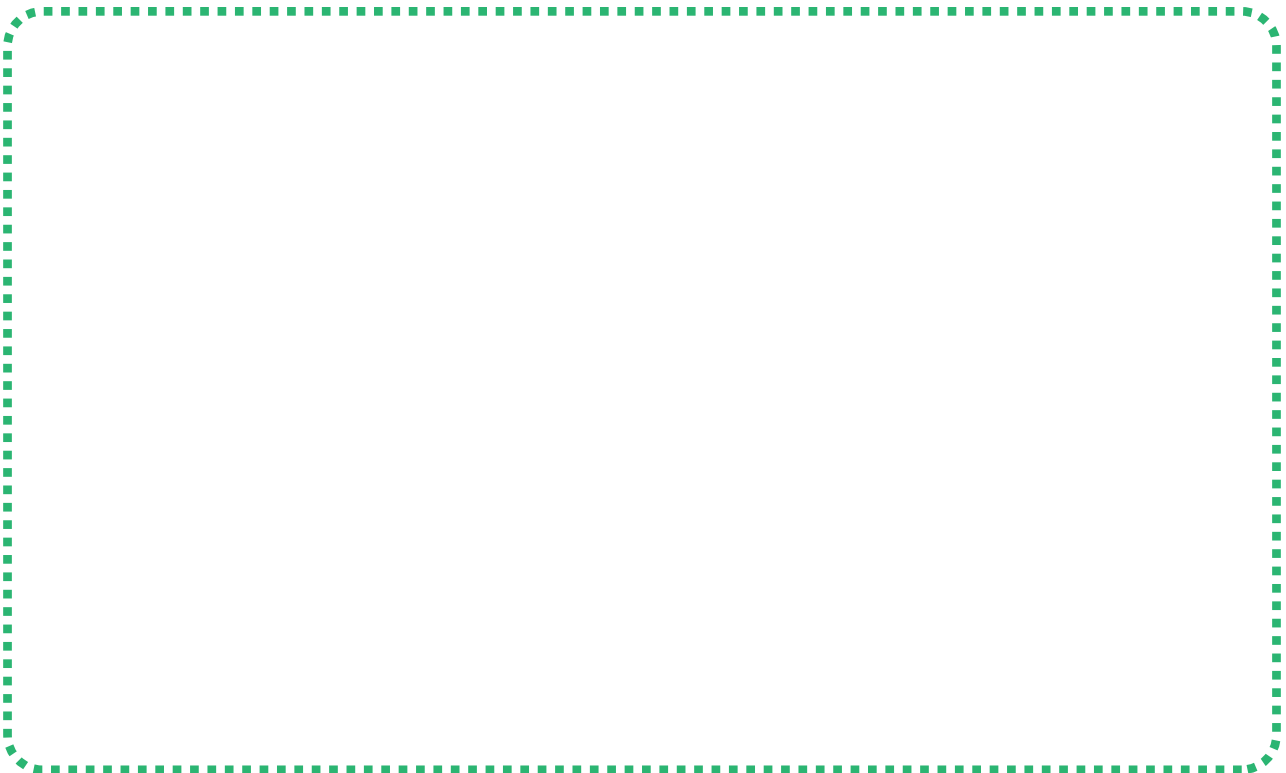


throw garbage in rivers



return animals to the sea
(by Sijori Images)

Draw a poster to show how you can save the aquatic environment from pollution.



Let's review

Fill in the blanks using the words below.

animals
pollution

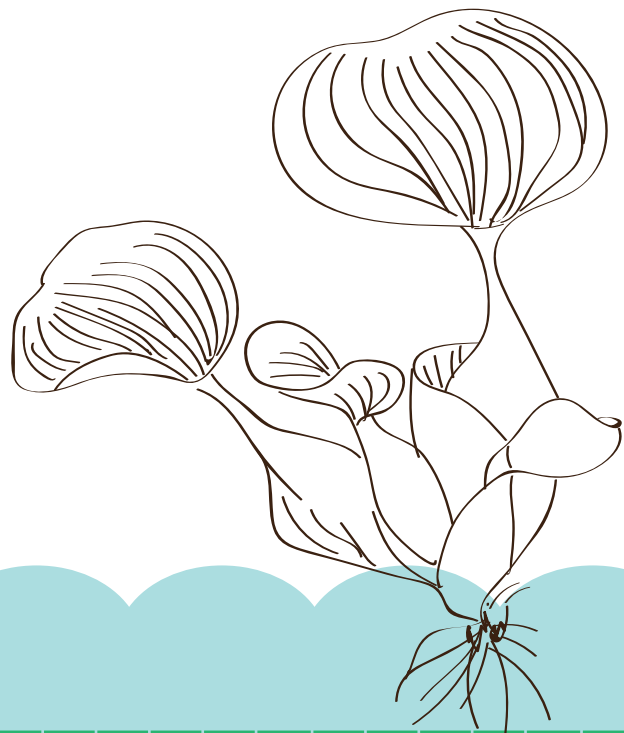
aquatic
shrimp

cleaning
submerged

Taiwan has a rich _____ environment. Aquatic plants and aquatic _____ live in this environment.

There are four types of aquatic plants: floating plant, floating-leaf plant, emergent plant, and _____ plant. There are many kinds of aquatic animals such as fish, snail, crab, turtle, tadpole, frog and _____.

_____ is harmful for the aquatic environment. To care for the aquatic environment, do not throw trash, do not catch aquatic animals, and join beach _____ activities.



Unit 3

Interesting Sound and Light Phenomenon

有趣的聲光現象

Sound
聲音

Light
光

Reflection
反射

Applications
應用

Interesting
Sound and Light
Phenomenon
有趣的
聲光現象

Sound is produced when an object vibrates.
聲音是由物體振動產生。

Sound can travel through gas, liquid and solid.
聲音透過氣體、液體、固體傳播。

Light comes from different sources like the Sun and lit candle.
光來自不同光源，例如太陽、點燃的蠟燭。

Light travels in a straight line.
光是直線行進的。

Shadow forms when an object blocks light.
光被物體阻擋形成影子。

When light hits a mirror, it is reflected.
光照射到鏡子時，光會產生反射。

Reflected light also travels in a straight line.
反射的光也是直線行進的。

When light hits a smooth and shiny object, mirror-like reflections are produced.
當光線照射到光滑而有光澤的物體上時，會產生鏡面反射。

Decoration
裝飾

Entertainment
娛樂

Signal
信號

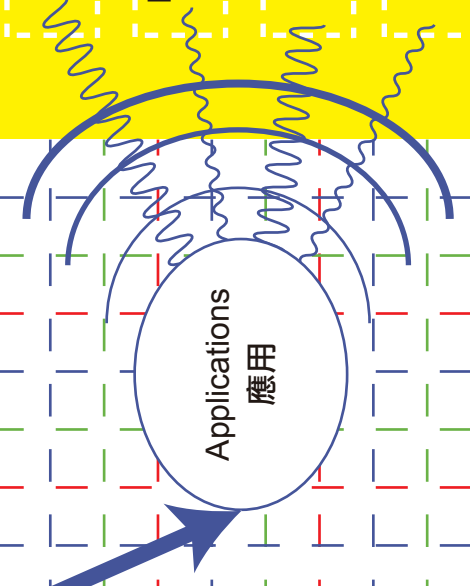
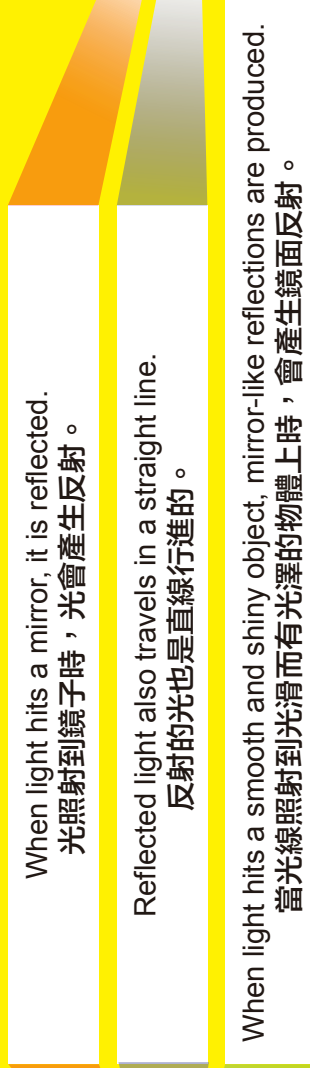
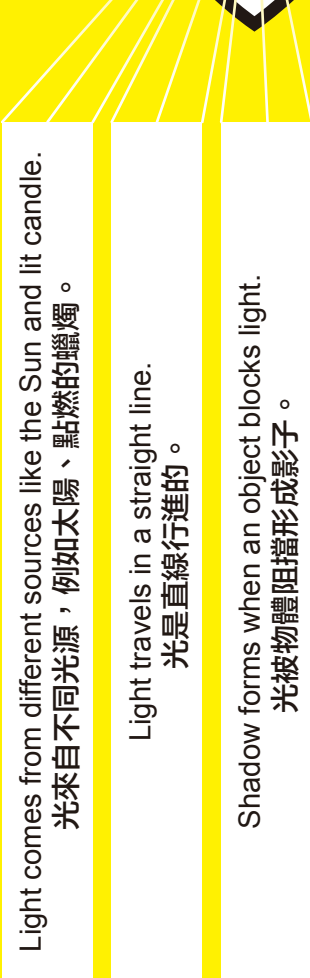
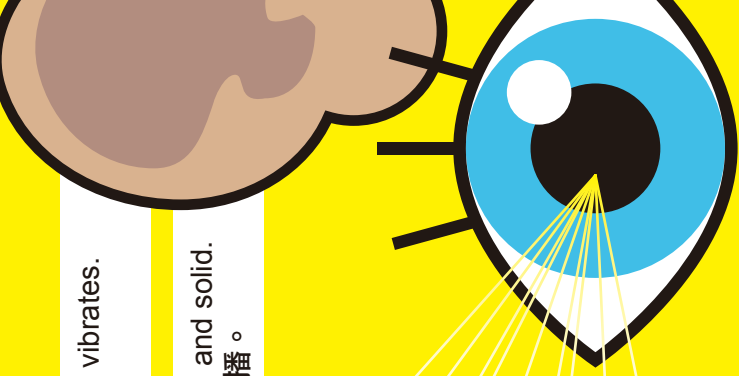
Warning
警示

Music box and lights are used as Christmas decorations.
音樂盒與光用作聖誕裝飾。

Toys with sound and light, hot air balloon and light sculpture concert provide entertainment.
聲光玩具、熱氣球和燈光雕塑音樂會提供娛樂。

Bicycle bell and light from lighthouse send signal.
自行車鈴和燈塔發出信號。

Carbon monoxide detection alarm and ambulance warning light send warning.
一氧化碳檢測報警器和救護車警示燈發出警示作用。



Unit 3 Interesting Sound and Light Phenomenon

有趣的聲光現象

日期： / /

應聽懂及認讀的生字

1. 現象 phenomenon

2. 聲音 sound

3. 產生(n) production

4. 產生(v) produce

5. 物體 object

6. 振動(n) vibration

7. 振動(v) vibrate

8. 行進/旅行 travel

9. 氣體 gas

10. 液體 liquid

11. 固體 solid

12. 光 light

13. 光源 light source

14. 陽光 sunlight

15. 蠟燭 candle

16. 雷射光 laser

17. 影子 shadow

18. 反射(n) reflection

19. 反射(v) reflect

20. 鏡子 mirror

21. 光滑的 smooth

22. 閃亮的 shiny

23. 裝飾 decoration

24. 娛樂 entertainment

25. 信號 signal

26. 警示 warning

1. Sound is produced when an object vibrates.

聲音是由物體振動產生。

2. Light travels in a straight line.

光是直線行進的。

3. When light hits a mirror, it is reflected.

光照射到鏡子時，光會產生反射。

4. Sound and light can be used for decoration, entertainment, signal or warning.

聲光可用於裝飾、娛樂、信號或警告。

Science Videos Unit 3

3-1 What is Sound? |
The Dr. Binocs Show



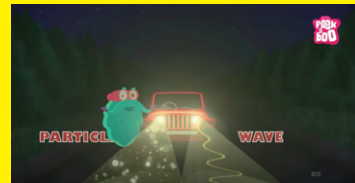
3-1 What is Sound? |
Physics for Kids



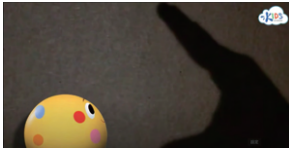
3-1 Sound Experiments
for Kids | Science for
Kids



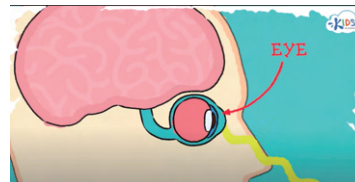
3-2 Light | The Dr.
Binocs Show



3-2 Light and Shadows
for Kids | Science Video
for Kids



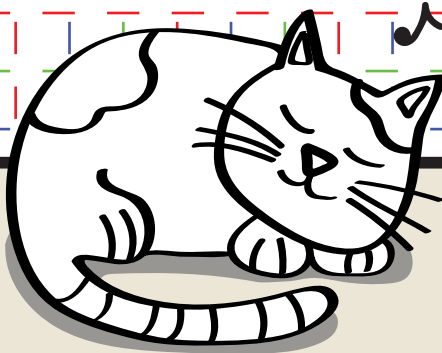
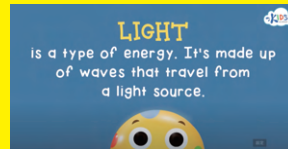
3-2 Sources of Light |
Science for Kids

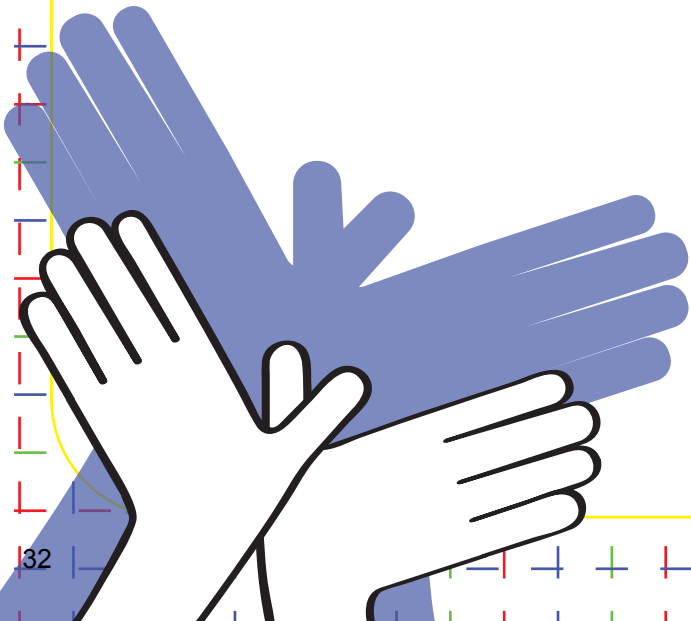
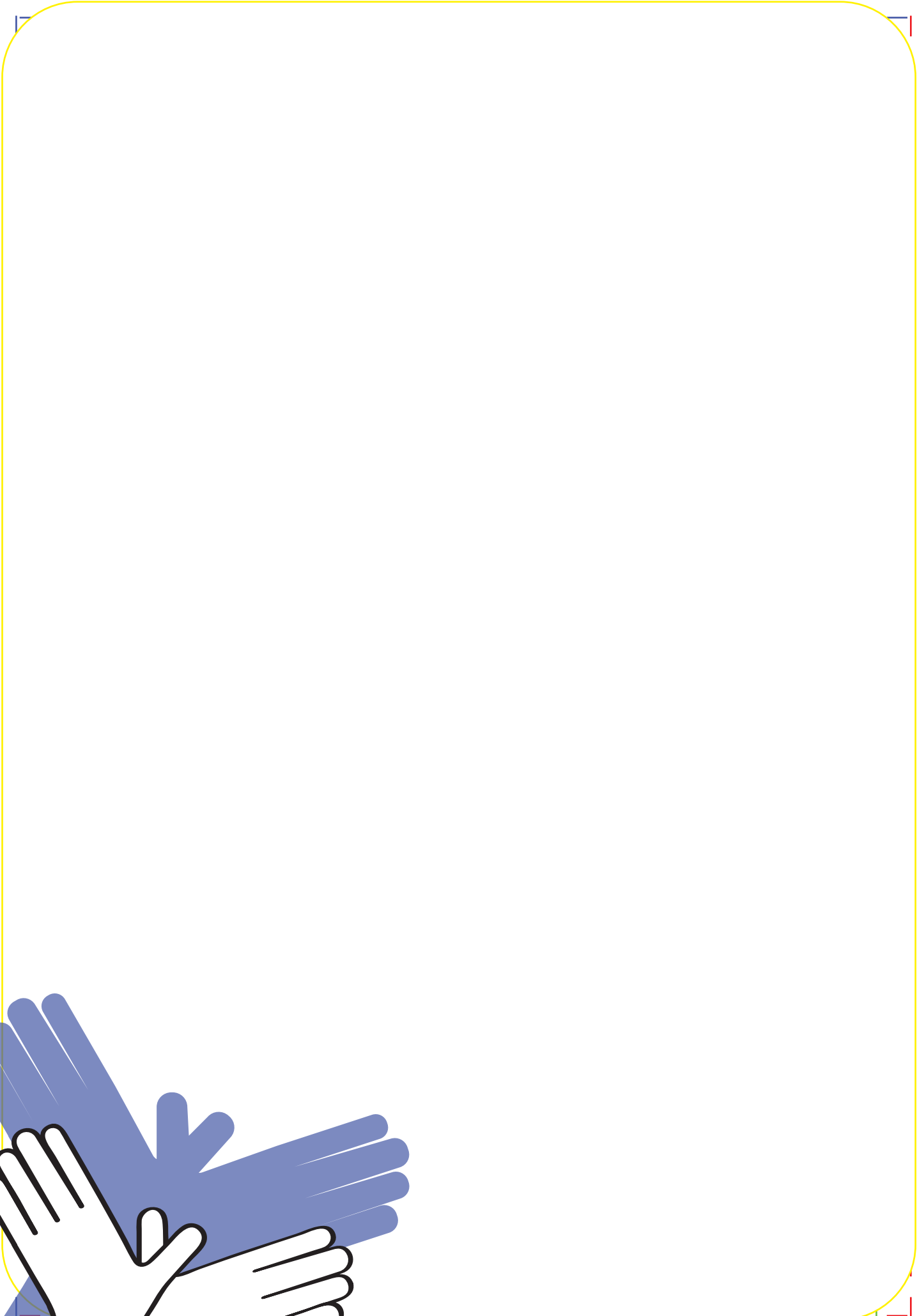
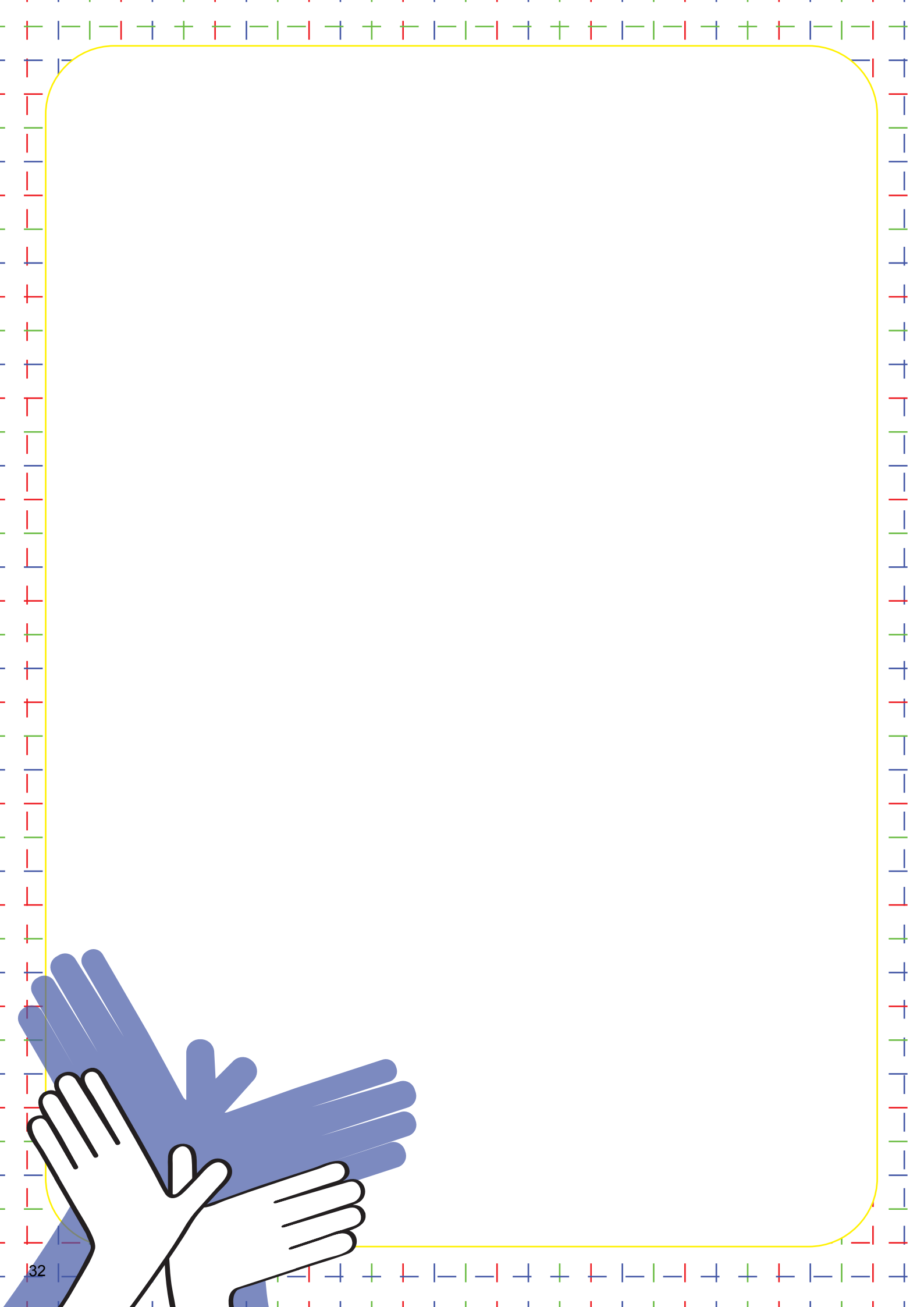


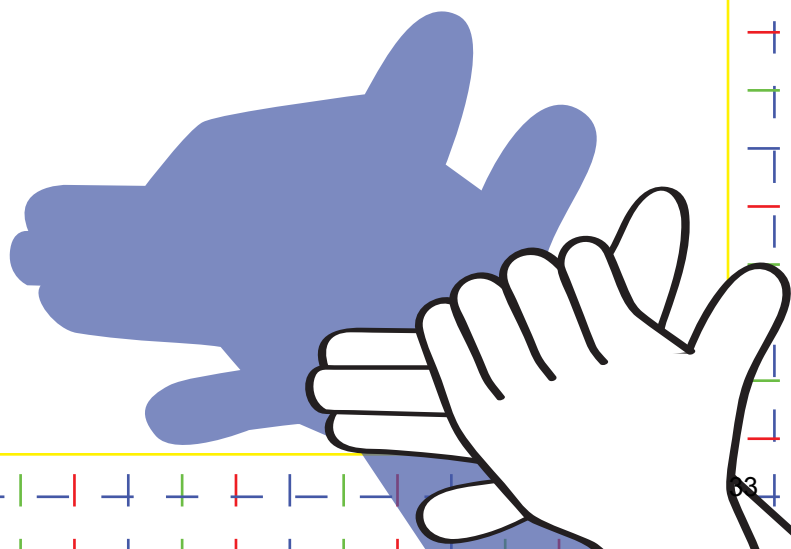
3-3 Light and Sound
for Children | Science
for Kids

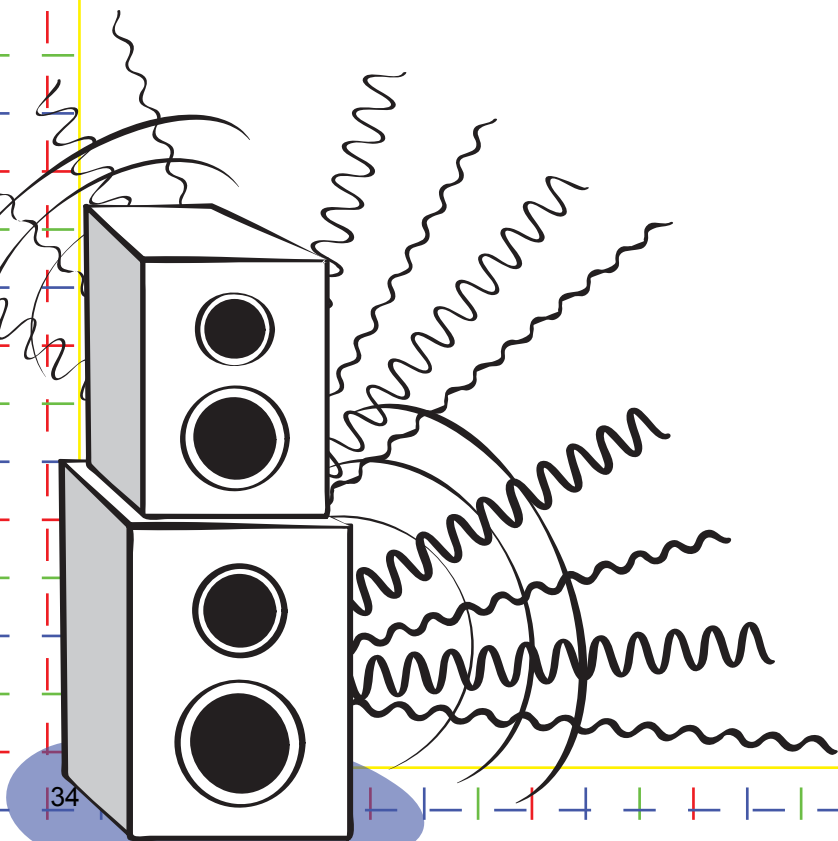


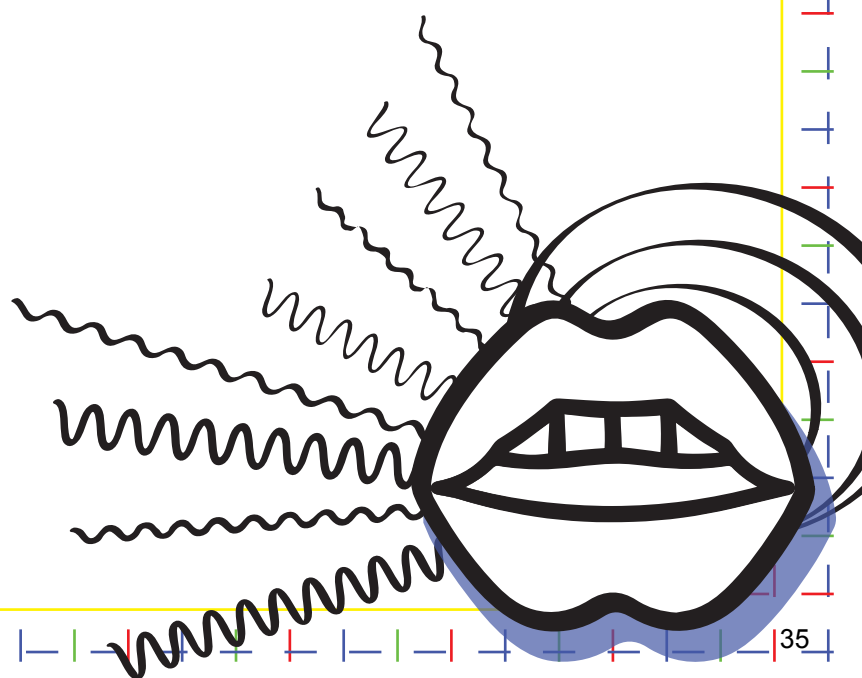
3-3 Communication
Using Light and Sound |
Science for Kids











Sound

Write **1** inside the if it happened first. Write **2** inside the if it happened next.

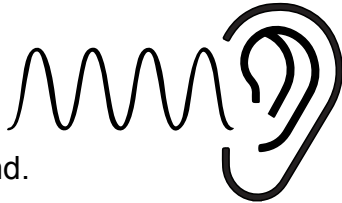
You play the guitar.



The strings vibrate.



You hear a sound.



The strings vibrate.



The strings stop vibrating.



You stop playing the guitar.



The strings stop vibrating.



You don't hear a sound.



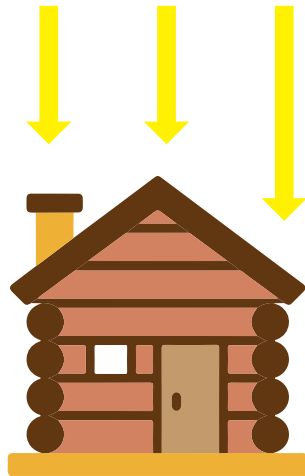
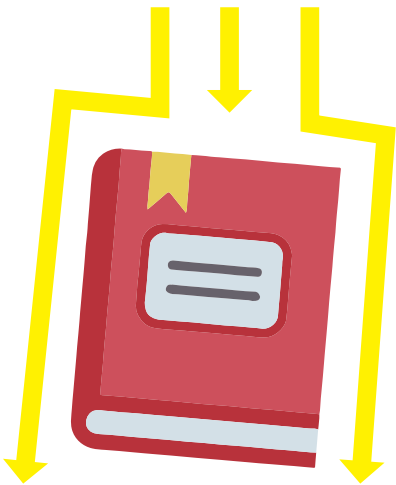
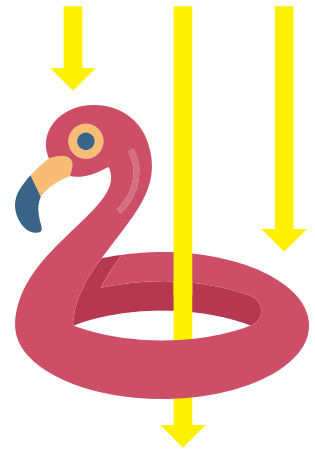
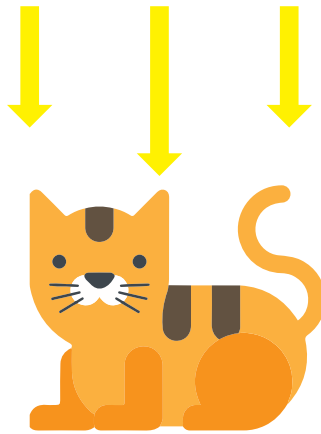
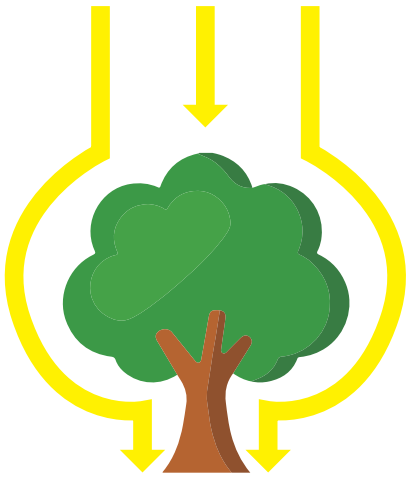
Draw something that makes a **soft** sound.

Draw something that makes a **loud** sound.

Light

Does light travel correctly?

If yes, put / inside the . If no, put X inside the .



Light travels in a straight line.

Shadow and reflection

Draw the tree's shadow.



The shadow's position depends on the Sun's position.

Does it reflect light?

If yes, put / inside the . If no, put X inside the .



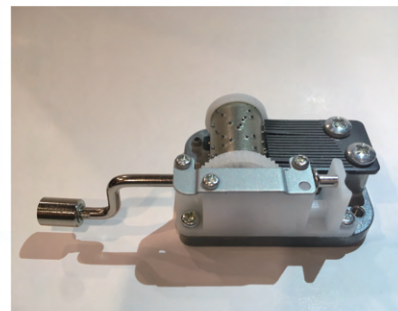
Smooth and shiny objects reflect light.

Uses of sound and light

How are sound and light used?

Check 😊 if they are used for decoration or entertainment.

Check ⚠️ if they are used as a signal or warning.



Let's review

Fill in the blanks using the words below.

line
solid

reflected
vibrates

shadow
warning

Sound and light are always around us. But we wonder what they are.

Sound is produced when an object _____. It can travel through gas, liquid and _____.

Light comes from different sources like the Sun and lit candle. It travels in a straight _____. When an object blocks light, it forms a _____. When light hits a mirror, it is _____. Reflected light also travels in a straight line.

Sound and light can be used for decoration, entertainment, signal or _____.

Unit 4

Fun Circuit

好玩的電路

A battery has two electrodes: positive and negative.
電池有兩個電極：正極與負極。

A wire is made of copper. It is covered with plastic.
電線是銅線，外面是塑膠皮。

A light bulb emits light.
燈泡發出光。

Electricity flows through a closed circuit.
通路(電可以流通)。

Electricity does not flow through an open circuit.
斷路(電無法流通)。

Metals like paper clip and coin conduct electricity.
金屬物質，如迴紋針或硬幣有導電性。

Non-metals like paper and rubber do not conduct electricity.
非金屬物質，如橡皮筋、紙團沒有導電性。

In a series circuit, all light bulbs and batteries are connected along the same path.
串聯電路：數個燈泡或電池串接在同一個通路上。

If two light bulbs are connected in series, they will be less bright.
燈泡(串聯)時，燈泡亮度會減弱。

In a parallel circuit, light bulbs and batteries are connected along different paths.
並聯電路：數個燈泡或電池分別接在不同通路上。

If two light bulbs are connected in parallel, they will have the same brightness.
燈泡(並聯)時，燈泡亮度不變。

Motor is used in things like electric toy car and electric fan.
馬達用於電動玩具車，電動風扇。

Things are powered by batteries or electricity from power stations.
有些物品的供電來自電池或發電站傳送的電力。

Throw used battery in recycling stations.
電池電量用盡後要送到回收站。

Parts
構造

Types
型式

Conductivity
傳導

Series circuit
串聯電路

Parallel circuit
並聯電路

Circuit connection
電路連接

Series and parallel
circuits
串聯與並聯

Circuits in daily life
生活中的電路

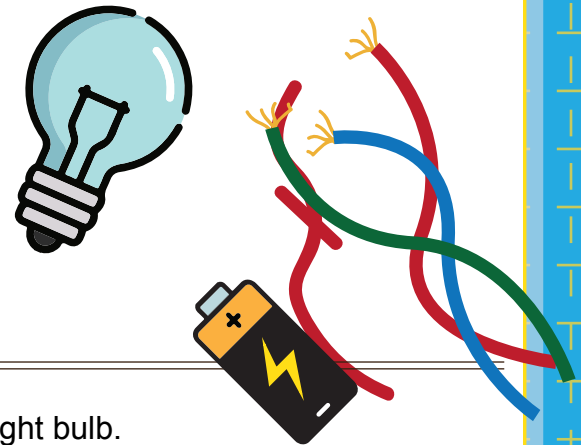
Fun Circuit
好玩的電路

Unit 4 Fun Circuit 好玩的電路

日期： / /

應聽懂及認讀的生字

<input type="checkbox"/> 1. 電路	circuit	<input type="checkbox"/> 16. 提把	handle
<input type="checkbox"/> 2. 電池	battery	<input type="checkbox"/> 17. 開關	switch
<input type="checkbox"/> 3. 電線	wire	<input type="checkbox"/> 18. 燈罩	lampshade
<input type="checkbox"/> 4. 銅線	copper wire	<input type="checkbox"/> 19. 迴紋針	paper clip
<input type="checkbox"/> 5. 燈泡	light bulb	<input type="checkbox"/> 20. 硬幣	coin
<input type="checkbox"/> 6. 電力	electricity	<input type="checkbox"/> 21. 手電筒	flashlight
<input type="checkbox"/> 7. 傳導性	conductivity	<input type="checkbox"/> 22. 金屬片	metal sheet
<input type="checkbox"/> 8. 傳導	conduct / conducts	<input type="checkbox"/> 23. 馬達	motor
<input type="checkbox"/> 9. 導體	conductor	<input type="checkbox"/> 24. 電動玩具車	electric toy car
<input type="checkbox"/> 10. 正極	positive electrode	<input type="checkbox"/> 25. 電風扇	electric fan
<input type="checkbox"/> 11. 負極	negative electrode		
<input type="checkbox"/> 12. 通路	closed circuit		
<input type="checkbox"/> 13. 斷路	open circuit		
<input type="checkbox"/> 14. 串聯電路	series circuit		
<input type="checkbox"/> 15. 並聯電路	parallel circuit		



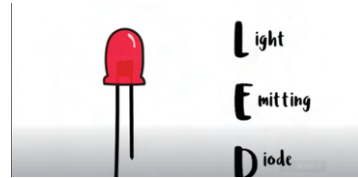
1. A simple circuit has three basic parts: battery, wire and light bulb.
一個簡單的電路包含三個基本部分：電池、電線和燈泡。
2. In a series circuit, all light bulbs and batteries are connected along the same path.
串聯電路：數個燈泡或電池串接在同一個通路上。
3. In a parallel circuit, light bulbs and batteries are connected along different paths.
並聯電路：數個燈泡或電池分別接在不同通路上。
4. When using electrical appliances, save electricity and pay attention to safety.
使用電器時，要節約用電，注意安全。

Science Videos Unit 4

4-1 Invention of Bulb



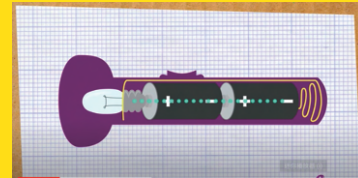
4-1 How Does an LED Work



4-1 LED Explained



4-1 The Power of Circuits



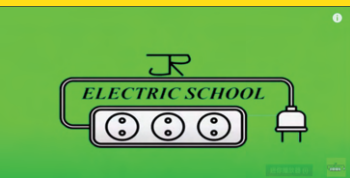
4-2 Electrical Circuits – Series and Parallel



4-2 What are Parallel Circuits



4-2 Series and Parallel Circuits Wiring



4-2 Why Parallel Circuit is Best for Hanging Lights



4-3 How Do Motors Work



4-3 Kids Safety

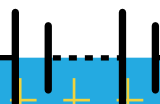




M



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M



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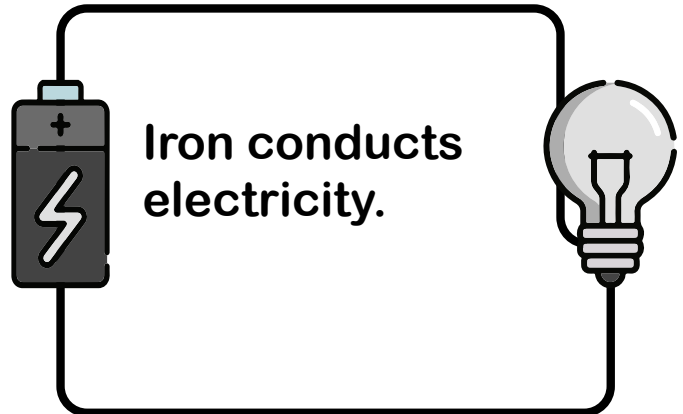
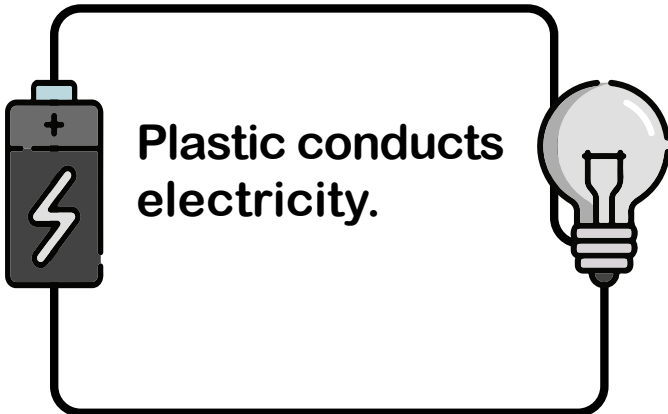
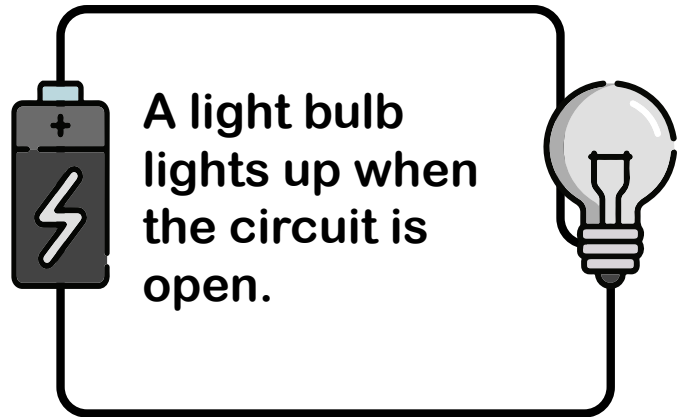
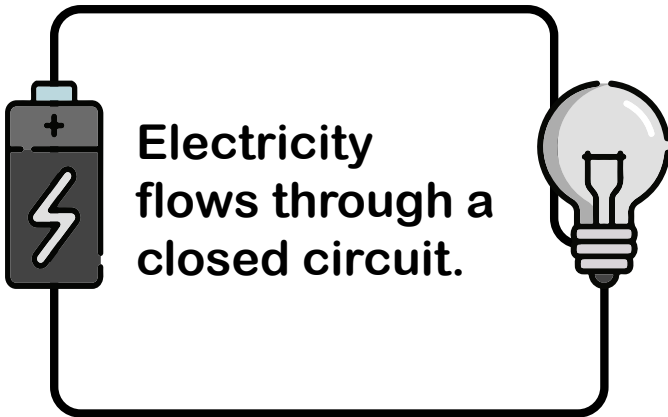
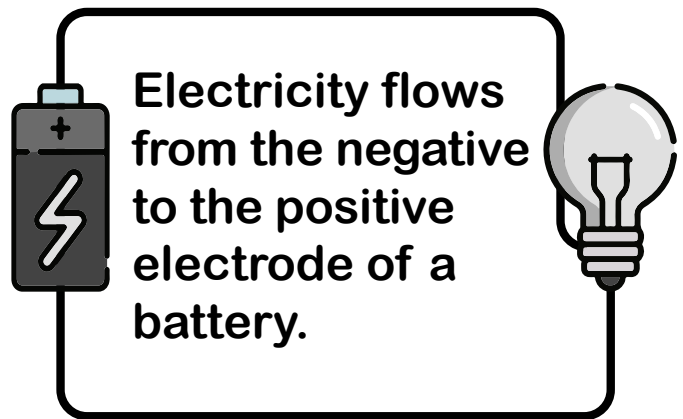
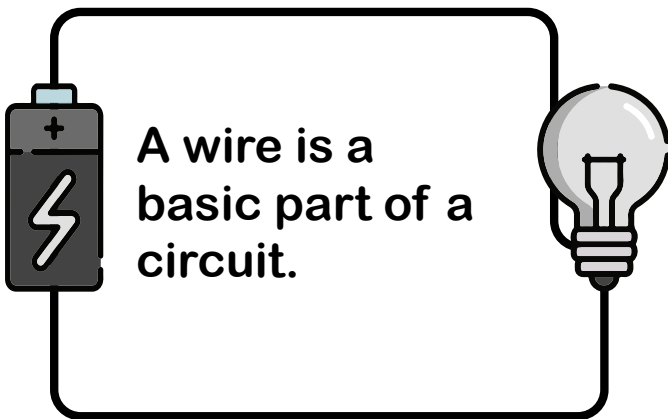


Circuit

True or False

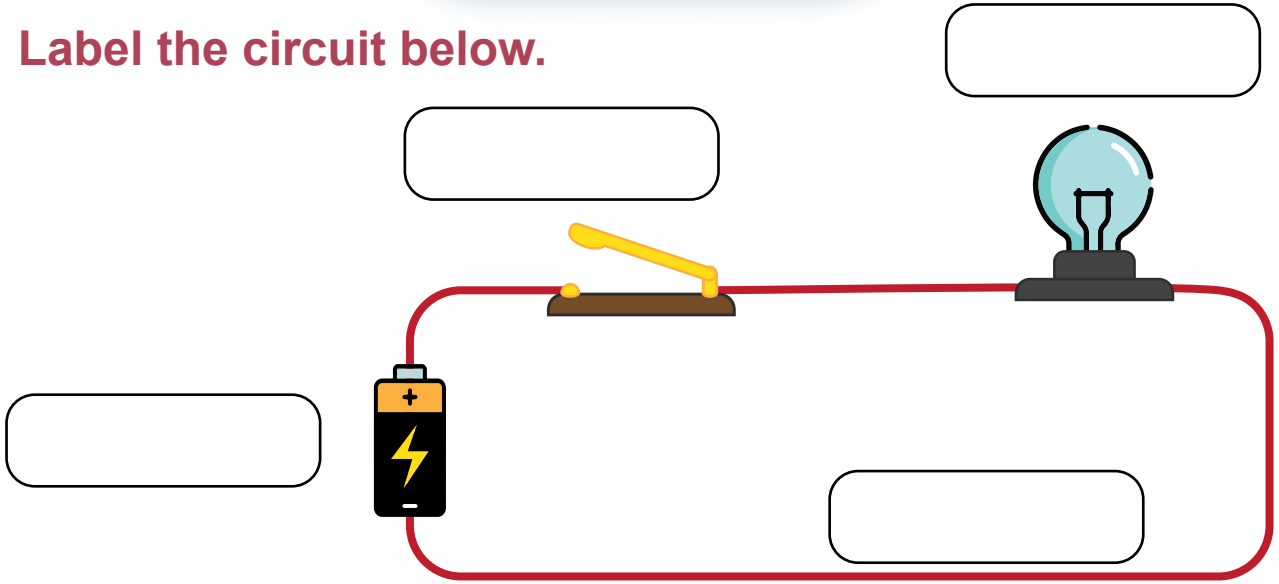
If the sentence is **true**, color the circuit **green**.

If the sentence is **false**, color the circuit **red**.

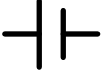





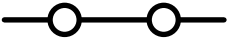


Circuit

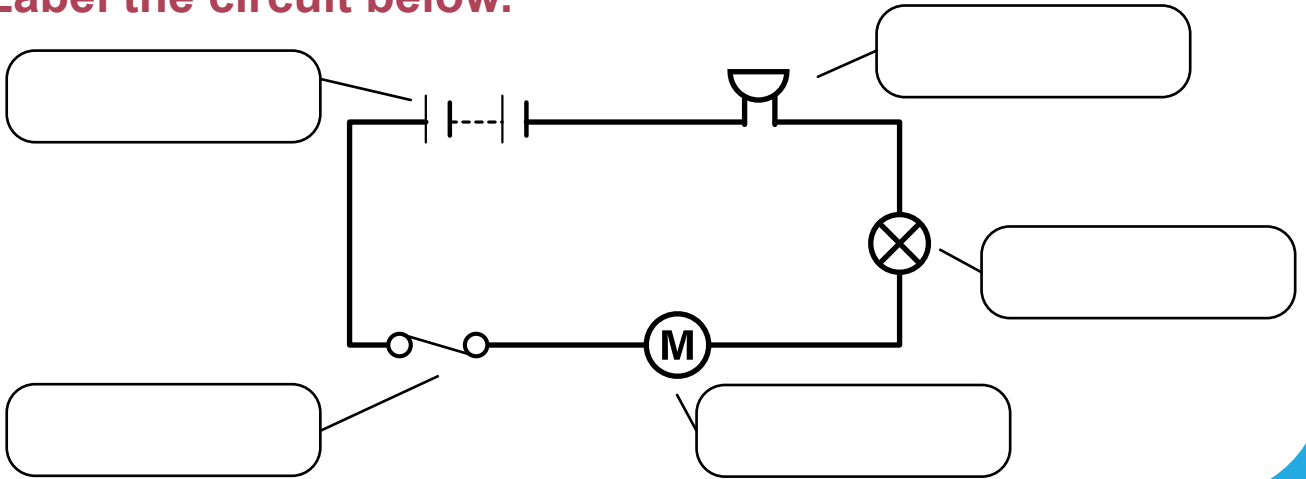
Label the circuit below.



There is a symbol for each part of a circuit.

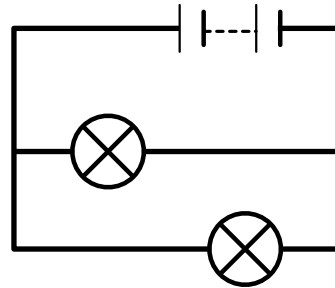
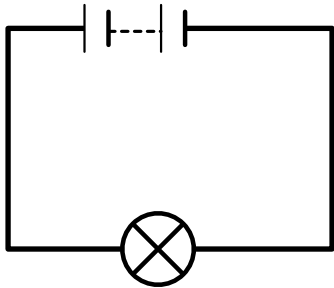
- 
 battery
- 
 wire
- 
 bulb
- 
 buzzer
- 
 motor
- 
 switch (off)
- 
 switch (on)

Label the circuit below.



Series and parallel circuits

Write series circuit or parallel circuit inside the

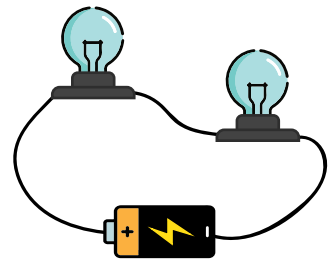


What is the difference between a series circuit and a parallel circuit?

Circle the letter of the correct answer.

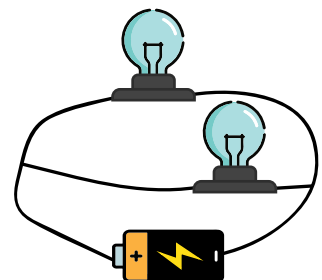
If two light bulbs are connected in series, the light bulbs _____.

- A. will be less bright
- B. will have the same brightness



If two light bulbs are connected in parallel, the light bulbs _____.

- A. will be less bright
- B. will have the same brightness



Motor and electrical safety

Can you make a motor work if you have these?



battery



motor



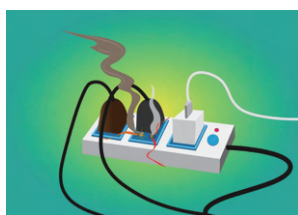
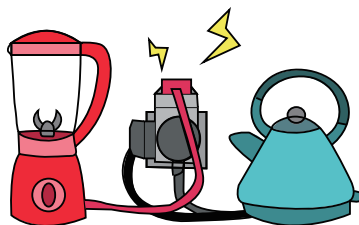
wire

Yes

No

Why?

Is this safe? Circle 😊 if yes and circle ☹️ if no.



Let's review

Fill in the blanks using the words below.

copper
rotate

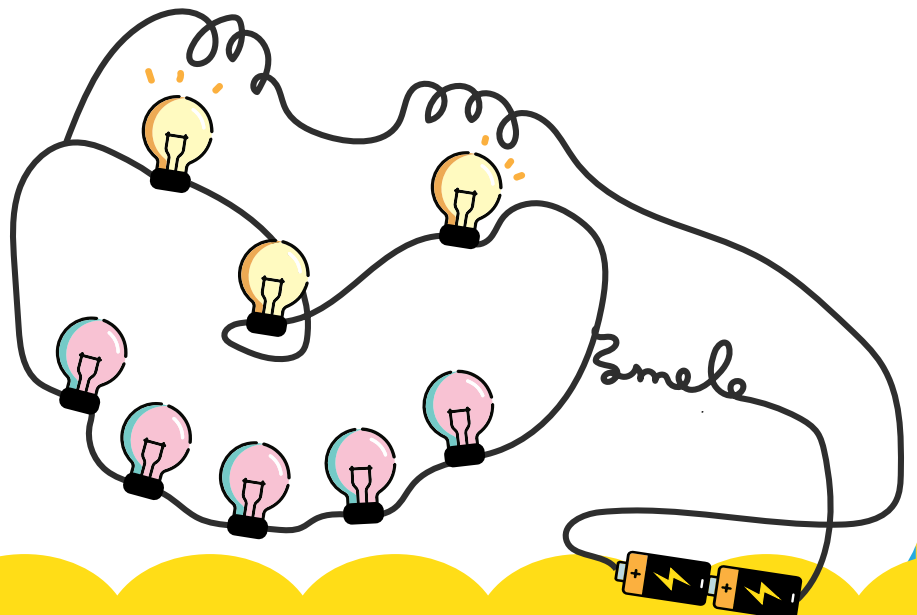
negative
series

parallel
wire

A simple circuit has three basic parts: battery, _____ and light bulb. A battery has two electrodes: positive and _____. A wire is made of _____. It is covered with plastic. A light bulb emits light.

There are two kinds of circuit: series and parallel. If two light bulbs are connected in _____, they will be less bright. If two light bulbs are connected in _____, they will have the same brightness.

In a circuit, the wire is connected to the metal sheet of the motor. This lets the motor _____. A motor makes electric toys and electrical appliances move.



Science Notes

English Immersion Program

4th grade

1st semester

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