

**WONG SHIU CHI SECONDARY SCHOOL**

**Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_ ( )

**School telephone no. : 26561270**

## Part I: Pre-lesson study

You should study your New IS textbook to search for the answers.

### Ch.1.1 Learning about Science

#### A. True or False

Study the following statements. Put a 'T' in the box against a correct statement and a 'F' against an incorrect statement.

1. There are only four branches of Science: Physics, chemistry, biology and integrated science.
2. Astronomists and geologists are scientists.
3. All scientific inventions are good for mankind.


#### B. Matching

Match the branches of science with letters A – E. Below is an example.

1. Biology	C	A. the study of matter, energy and forces
2. Chemistry		B. The study of properties, structure and reactions of substances
3. Physics		C. the study of living things
4. Geology		D. the study of the universe
5. Astronomy		E. the study of rock and structure of the Earth

#### C. Questions

1. Complete the following statements about the **discoveries** (發現) and **inventions** (發明) made by different scientists.
  - (a) Thomas Edison \_\_\_\_\_ (invented / discovered) light bulb.
  - (b) Wright brothers \_\_\_\_\_ (invented / discovered) the first aeroplane.
  - (c) Alexander Fleming \_\_\_\_\_ (invented / discovered) penicillin.
  - (d) James Watson \_\_\_\_\_ (invented / discovered) the structure of DNA.
2. Below are two scientific inventions. State ONE possible bad effect for each of them.
  - (a) Detergent
  - (b) Plastics bags



Bad effect:

---



---



Bad effect:

---

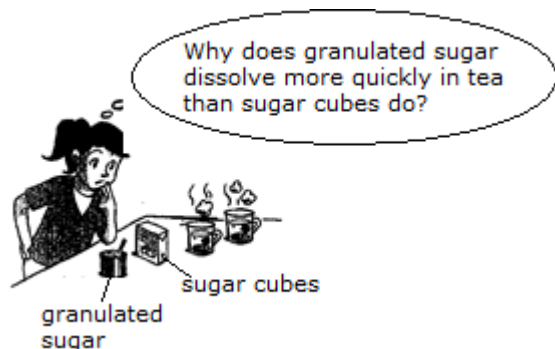


---

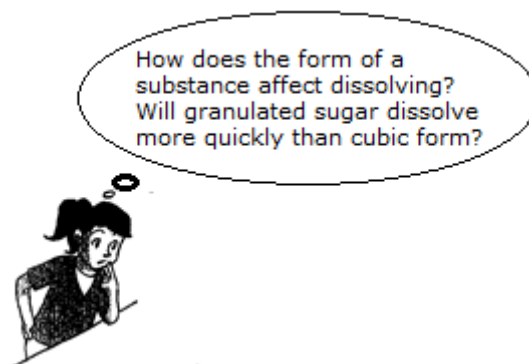
## Ch. 1.2 Practice of Science

1. Mandy carried out a **scientific investigation** (科學探究) about dissolving sugar cubes and granulated sugar. Write down the steps of scientific investigation represented by each of the pictures. The Step 1 has been done as an example.

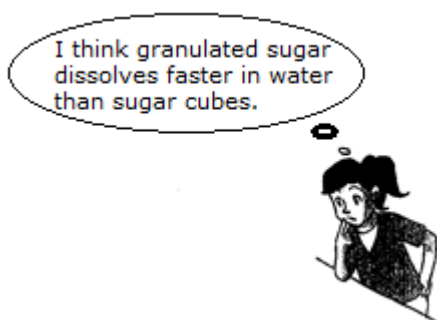
Step 1: Making observations



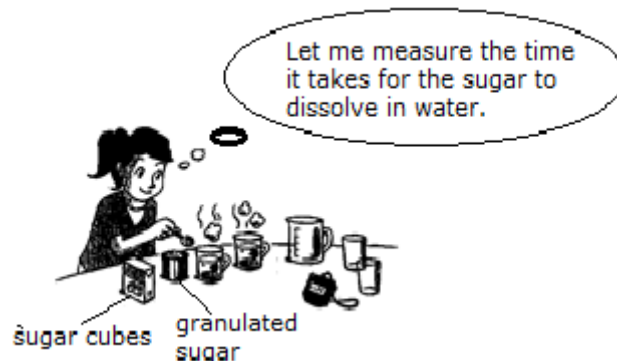
Step 2: \_\_\_\_\_



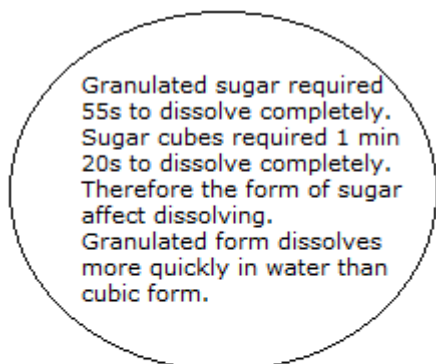
Step 3: \_\_\_\_\_



Step 4: \_\_\_\_\_

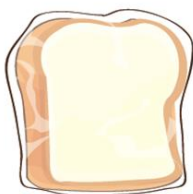


Step 5: \_\_\_\_\_

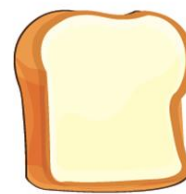


2. Tim, Steven and Doris wanted to study the effect of temperature on the growth of mould on bread. They designed their own experiments. Examine each experiment carefully. Are they designed as fair tests?

### Tim's experiment:



- white bread
- put into a plastic bag
- kept at 25°C



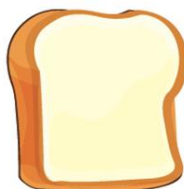
- white bread
- not put into a plastic bag
- kept at 8°C

Is this a fair test?

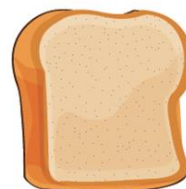
This \_\_\_\_\_ ( is / is not ) a fair test.

It is because the two set-ups are different in \_\_\_\_\_ ( only one / more than one ) condition(s).

### Steven's experiment:



- white bread
- not put into a plastic bag
- kept at 25°C



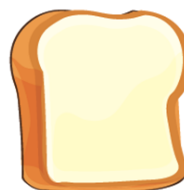
- wheat bread
- not put into a plastic bag
- kept at 8°C

Is this a fair test?

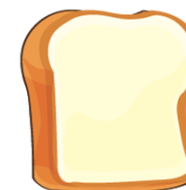
This \_\_\_\_\_ ( is / is not ) a fair test.

It is because the two set-ups are different in \_\_\_\_\_ ( only one / more than one ) condition(s).

### Doris' experiment:



- white bread
- not put into a plastic bag
- kept at 25°C



- white bread
- not put into a plastic bag
- kept at 8°C

Is this a fair test?

This \_\_\_\_\_ ( is / is not ) a fair test.

It is because the two set-ups are different in \_\_\_\_\_ ( only one / more than one ) condition(s).

## Ch. 1.3 Safety in the Laboratory

### A. Matching

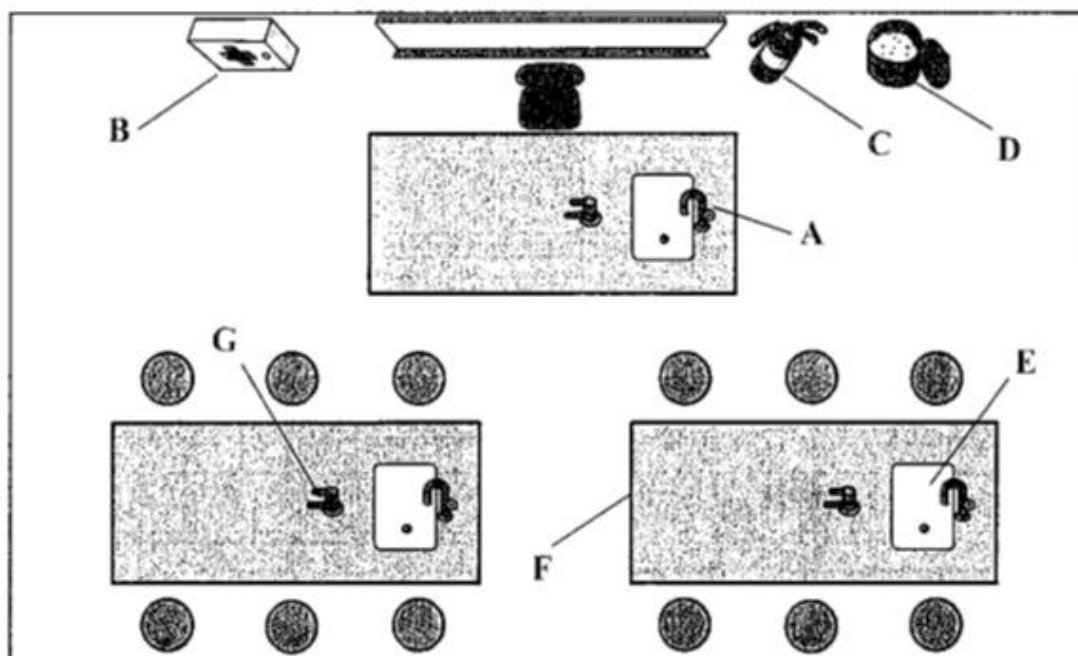
Match the hazard warning symbols with their meaning.



- A. poisonous
- B. can cause irritation
- C. can cause explosion
- D. can be harmful
- E. caution radiation
- F. flammable
- G. corrosive
- H. oxidizing

### B. Question

- Looking at the plan of a laboratory below. Name the **equipment** (設備) in the blanks. This first one has been done as an example.



- A Water tap      B \_\_\_\_\_      C \_\_\_\_\_
- D \_\_\_\_\_      E \_\_\_\_\_      F \_\_\_\_\_
- G \_\_\_\_\_



3. Look at the picture below which shows some students doing experiments in the laboratory. What potential dangers can you identify? Discuss with your classmates and complete the table below.



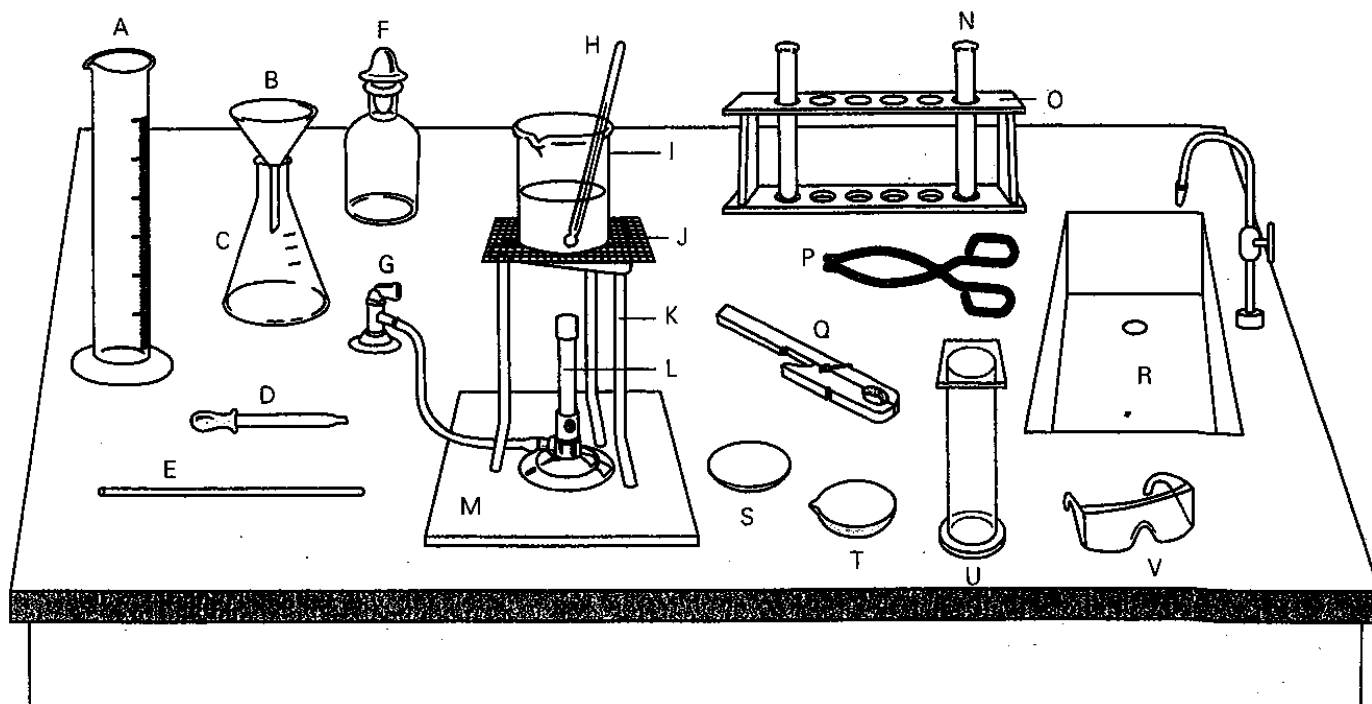
Student (s)	Potential danger	Reason for the potential dangers
Donald, Ken	Playing and running in the laboratory	D
	Touching the electric plug and socket with wet hands	
	Not tying back long hair	
	Pointing the mouth of the test tube towards others while heating	
	Eating and drinking in the laboratory	

#### Reason for the potential dangers

- A. Hot liquid may spill out and hurt others.
- B. The student may get an electric shock.
- C. The hair may catch fire.
- D. The student may knock over somebody or something.
- E. Harmful chemicals may contaminate the food and drink.

## Ch.1.4 Laboratory Apparatus and Basic Practical Skills

1. The diagram below shows some laboratory **apparatus** (儀器). Write down their names in the table.



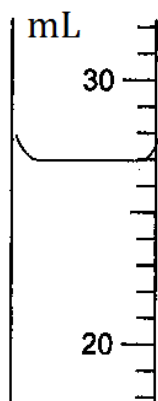
A		L	
B		M	
C		N	
D		O	
E		P	
F		Q	
G		R	
H		S	
I		T	
J		U	
K		V	

2. Complete the table below.

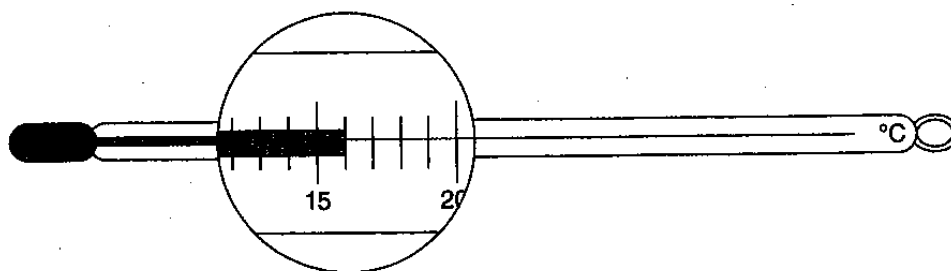
Measurement	Apparatus (Suggest ONE)	Unit (Suggest ONE)
(a) Length of a textbook		
(b) Volume of a can of soft drink		
(c) Temperature of a room		
(d) Mass of a boy		
(e) Time		

3. Using complete sentences, write down the reading of the following measurements with suitable units.

(a) The volume of the solution is \_\_\_\_\_.

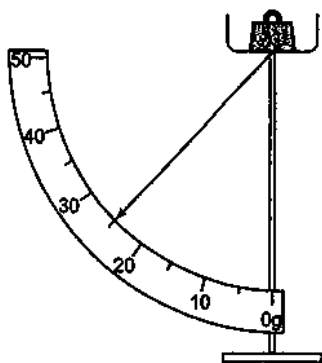


(b) The \_\_\_\_\_ is \_\_\_\_\_.





(c) \_\_\_\_\_.



(d) \_\_\_\_\_.



4. Take the following measurements.

Measurement	Result (with unit)
(a) The length of this exercise book	
(b) The volume of a can of Coca Cola	
(c) The temperature of your bedroom	
(d) Your body mass	
(e) The time for you to write 'I love science' for 10 times	

## Part II: Book Report

Read a book about Science (NOT IS textbook). You may borrow Science books from the public library.  
Then complete the report below.

Title: \_\_\_\_\_

Author: \_\_\_\_\_

Publisher: \_\_\_\_\_

1. Write a short paragraph in not more than 50 words to summarize the main ideas of the book.

---

---

---

---

---

---

2. What was the most interesting thing that you learned from this book?

---

---

---

---

---

3. Would you recommend this book to a friend? Why or why not?

---

---

---

- END -