



王肇枝中學  
**WONG SHIU CHI SECONDARY SCHOOL**

# **Pre-S1 Assignment**

## **Integrated Science 2023**



(Image: Freepic.com)

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

**Class:** \_\_\_\_\_

**Class No:** \_\_\_\_\_

**\*Please submit your completed assignment to IS teacher on the first school day.**

**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:

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Bad effect:

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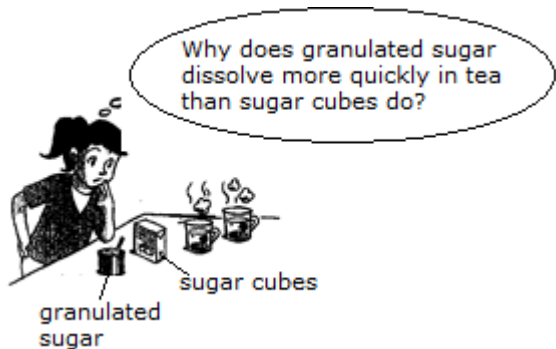


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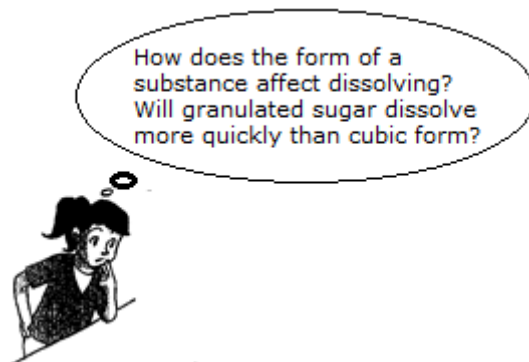
## Ch. 1.2 Practice of Science

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.

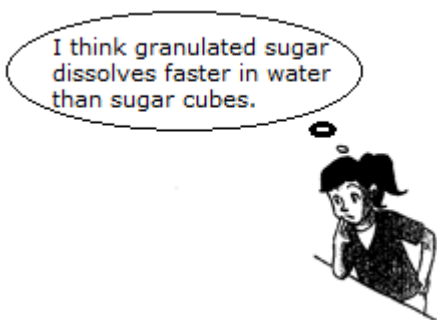
Step 1: Making observations



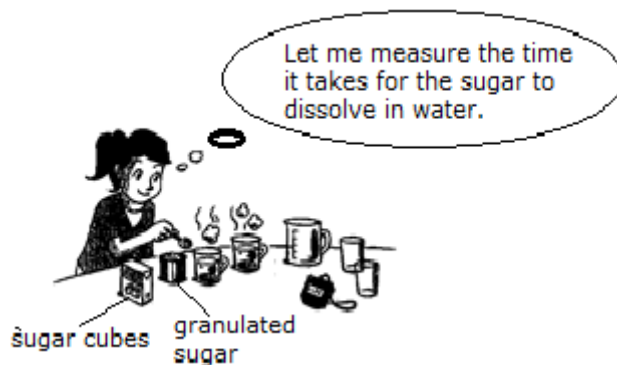
Step 2: \_\_\_\_\_



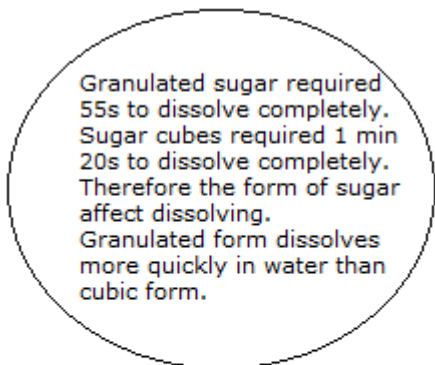
Step 3: \_\_\_\_\_



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

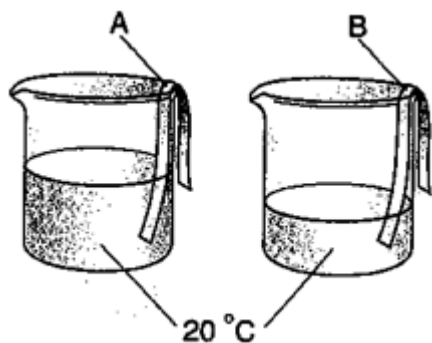


Step 5: \_\_\_\_\_

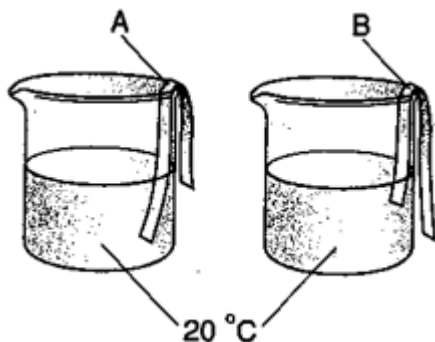


2.

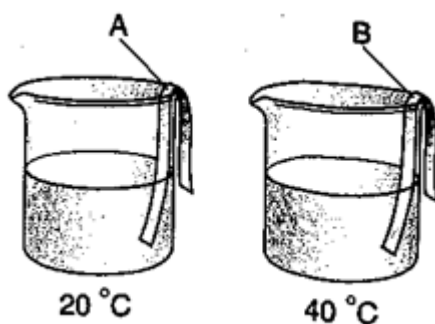
3. Some students are studying **fair test** (公平測試) is given two different brands of tissue paper A and B. They need to find out which brand absorbs more water. A student cuts the papers into long narrow strips and dips them in water in different ways as shown below. Are their tests fair? Explain briefly.

**Test 1**

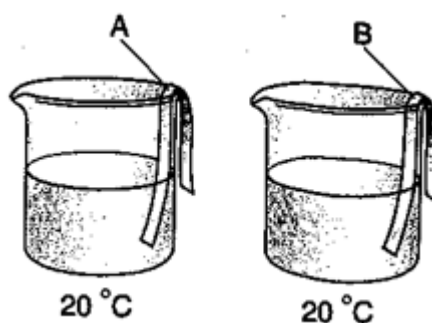
Test 1 is \_\_\_\_\_ (fair / unfair) because the two set-ups are different in \_\_\_\_\_  
 \_\_\_\_\_ (only one / more than one) condition(s).

**Test 2**

Test 2 is \_\_\_\_\_ (fair / unfair) because the two set-ups are different in \_\_\_\_\_  
 \_\_\_\_\_ (only one / more than one) condition(s).

**Test 3**

Test 3 is \_\_\_\_\_ (fair / unfair) because the two set-ups are different in \_\_\_\_\_  
 \_\_\_\_\_ (only one / more than one) condition(s).

**Test 4**

Test 4 is \_\_\_\_\_ (fair / unfair) because the two set-ups are different in \_\_\_\_\_  
 \_\_\_\_\_ (only one / more than one) condition(s).

## Ch. 1.3 Safety in the Laboratory

### A. Matching

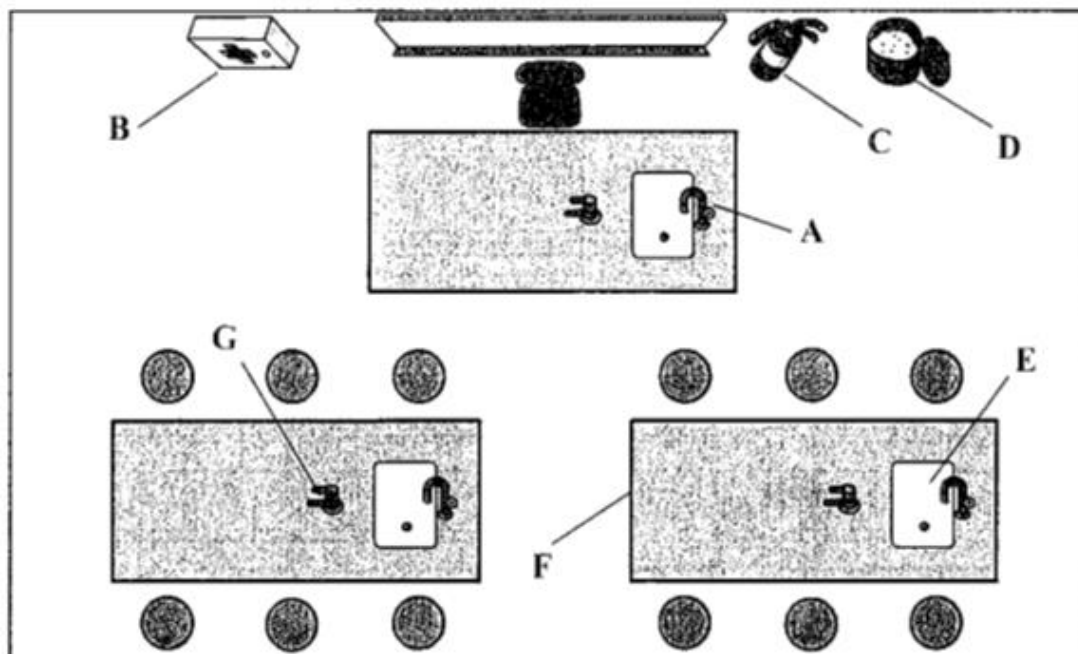
Match the hazard warning symbols with their meaning.



- 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.



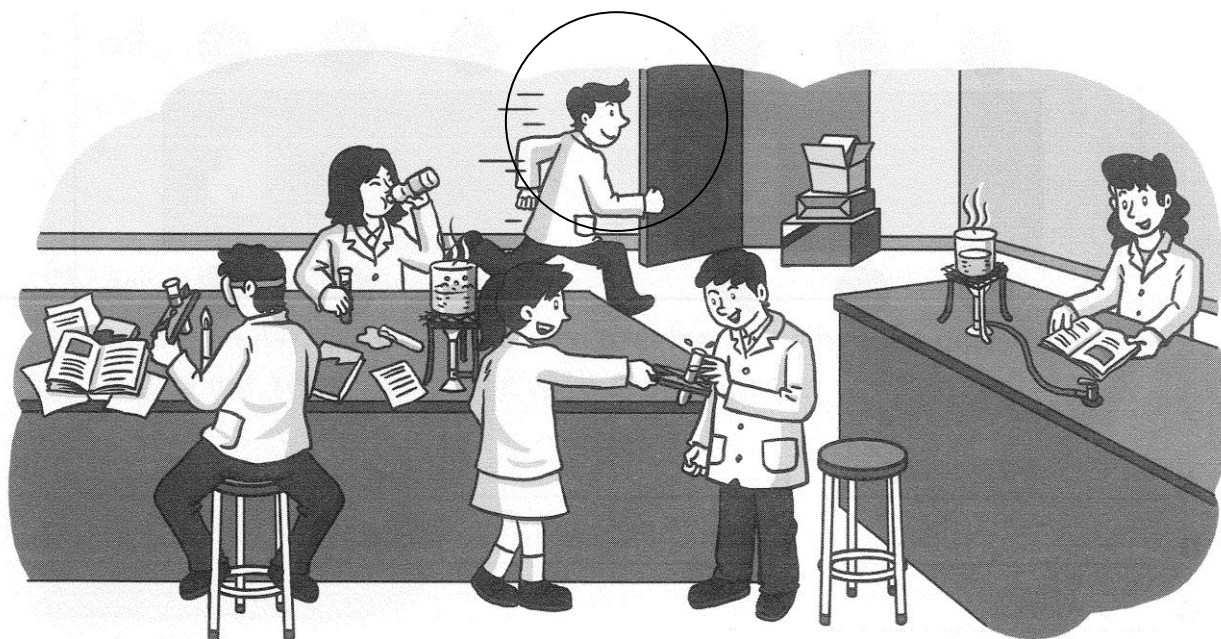
- A Water tap      B \_\_\_\_\_      C \_\_\_\_\_
- D \_\_\_\_\_      E \_\_\_\_\_      F \_\_\_\_\_
- G \_\_\_\_\_

2. You must follow the **laboratory rules** (實驗室規則) when working in the laboratory.

<b>Do</b>	
1	Keep the exits and passages clear.
2	Keep the laboratory clean and tidy.
3	Report all accidents to the teacher at once.
4	Keep an eye on your experiment.
5	Wear safety goggles (安全眼鏡) when heating or mixing substances.
6	Tie back long hair and fasten school ties when doing experiments.

<b>Don't</b>	
1	Enter the laboratory without teacher's permission.
2	Do experiments without teacher's permission.
3	Eat, drink, play or run about in the laboratory.
4	Point the mouth of a test tube towards anyone when heating.
5	Leave a lighted Bunsen burner unattended.

Look at the picture below. Circle the wrong practices on the picture and write what the students should do. The first one has been done as an example.



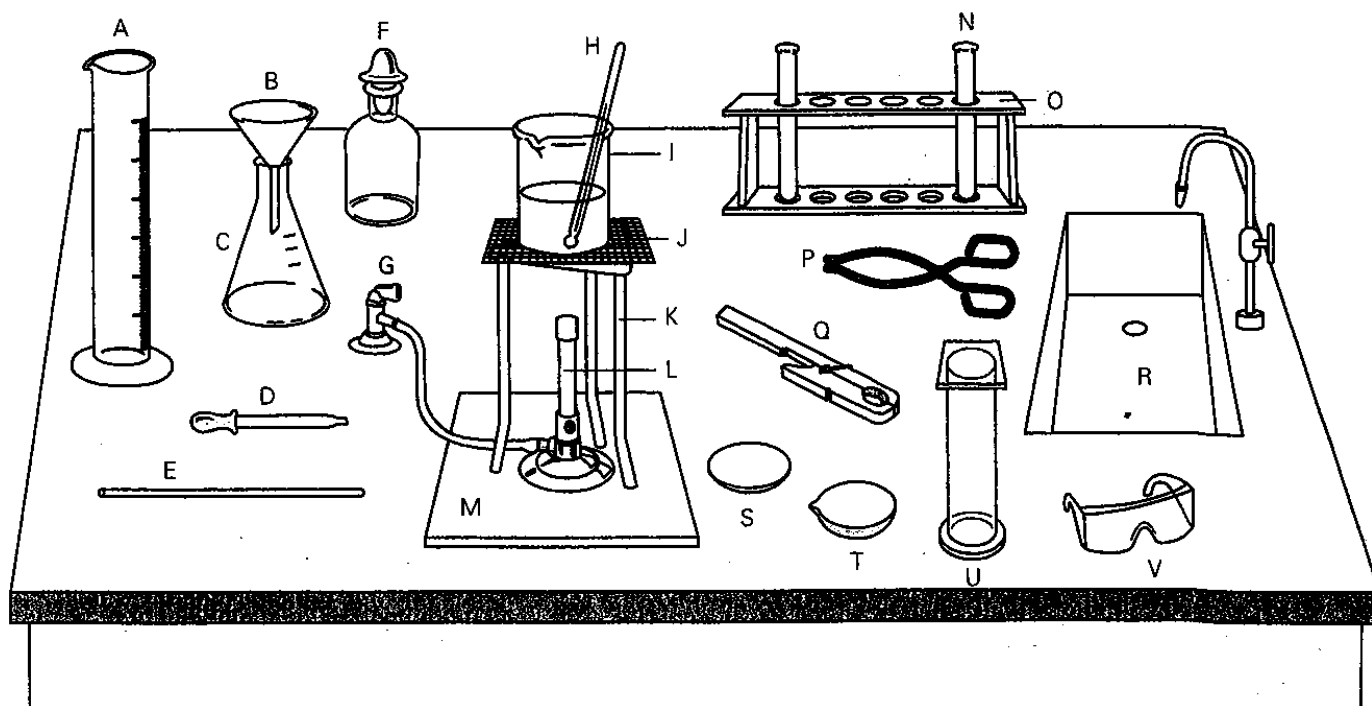
1. The boy should not run about in the laboratory.

2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

## Ch.1.4 Laboratory Apparatus and Basic Practical Skills

### A. Question

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	

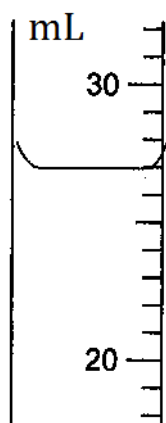


2. Complete the table below.

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		

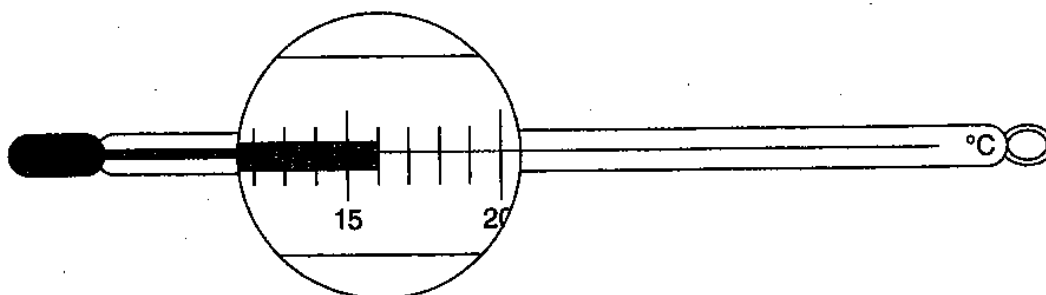
3. Take the following readings. Remember write the unit.

(a) Read the volume of a liquid.



\_\_\_\_\_

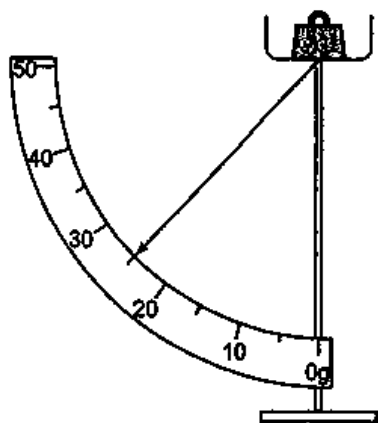
(b) Read the temperature measured.



\_\_\_\_\_



(c) Read the mass measured.



\_\_\_\_\_

(d) Read the time recorded.



\_\_\_\_\_

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 you' 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.

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

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

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