

Name: _____()

F.1()

Tasks to be done:

- I. Complete all the parts and write down the **Chinese meaning** for all blanks in this note.
- II. A quiz will be given in the first Integrated Science lesson.

A. Laboratory safety 實驗室安全

1. A **laboratory** has different types of equipment and apparatus. It is a suitable place for doing experiments.

實驗室內有各種不同的設備和儀器，是一個適合進行實驗的地方。

2. In the laboratory, we need to use **safety equipment**. It is used to protect our safety when we are doing experiments.

在實驗室內，我們需要使用不同的**安全設備**，這些設備可以保障我們進行實驗時的安全。

Laboratory safety equipment**實驗室安全設備**

laboratory coat
實驗袍



safety goggles
安全眼鏡



gloves
手套



fire extinguisher
滅火筒



eye wash bottle
洗眼水瓶



sand bucket
滅火沙桶



first-aid box
急救箱



fume cupboard
煙櫥

3. We need to follow safety rules in the laboratory.

我們必須遵守實驗室安全守則。

Safety rules in the laboratory (1)**實驗室安全守則 (1)**

*Fill in the blanks with the **Chinese meaning** of the following sentences

Dos 應做的事

- Always **(v) follow** the **(n) instruction** given by your teacher.
必須(v) _____ 老師的(n) _____。
- **(v) Know** the fire escape route.
(v) _____ 火警發生時的逃生路線。
- **(v) Read** **(n) safety precautions** before doing an experiment.
進行實驗前，先仔細(v) _____ (n) _____。
- **(v) Wear** **(n) safety goggles** when heating or mixing substances.
加熱及把物質混合時應(v) _____ (n) _____。
- **(v) Tie up** long hair and **(v) tuck** in school ties when doing experiments.
進行實驗時，必須把長髮(v) _____，領帶亦應(v) _____
恤衫的鈕扣之間。
- **(v) Wash** your hands after completing an experiment.
實驗後要(v) _____。



實驗室安全守則 (2)

*Fill in the blanks with the **Chinese meaning** of the following sentences

DON'Ts 不應做的事







- Do not **(v) enter** the **(n) laboratory** without your teacher's **(n) permission**.
未得老師(n) _____, 不得擅自(v) _____(n) _____。
- Do not **(v) run** or **(v) play** in the **(n) laboratory**.
不得在(n) _____內(v) _____或(v) _____。
- Do not **(v) eat** or **(v) drink** in the laboratory.
不得在實驗室內(v) _____或(v) _____。
- Do not **(v) smell** or **(v) taste** any **(n) chemicals** unless your teacher asks you to do so.
在沒有老師指引下, 切勿(v) _____或(v) _____任何(n) _____。
- Do not **(v) touch** hot **(n) apparatus**.
不要(v) _____熱的(n) _____。
- Do not **(v) throw** solid **(n) wastes** into the sink.
不要(v) _____固體(n) _____在洗滌槽中。
- Do not **(v) point** **(n) test tubes** containing boiling liquids towards yourself or other students.
把試管加熱時, 切勿把(n) _____(v) _____着自己或同學。



4. We should pay attention to the **hazard warning symbols** on the containers of chemicals before doing experiments.

進行實驗前，我們必須先查看盛載化學品容器上的**危險警告標籤**，並採取適當的安全措施。

*Fill in the blanks with the **Chinese meaning** of the following sentences





Hazard warning symbol 危險警告標籤	Safety precautions 安全措施
	<ul style="list-style-type: none"> (v) Keep away from (n) heat and (n) flame (v) _____ (n) _____ 或(n) _____ 的地方
	<ul style="list-style-type: none"> (v) Wear (n) safety goggles and (n) gloves when handling the chemical. (v) _____ (n) _____ 及(n) _____ 來處理化學品 (v) Store in a well ventilated room (v) _____ 於空氣流通的地方
	<ul style="list-style-type: none"> Keep away from heat and flame 遠離火種或熱源的地方 (v) Avoid (n) shock, which may cause the (n) chemical to (v) explode 應(v) _____ (n) _____ , 因震動可能引致(n) _____ (v) _____
  	<ul style="list-style-type: none"> (v) Avoid breathing in the (n) vapour of the chemical (v) _____ 吸入化學品揮發出來(n) _____ Wear safety goggles and gloves when handling the chemical 處理化學品時必須戴上安全眼鏡及手套 (v) Wash your hands (adv) thoroughly after handling the chemical 處理化學品後要(adv) _____ (v) _____ 洗手

5. When accidents happen, we need to keep calm and tell the teacher immediately.

We should follow the teacher's instructions to handle different accidents.

發生意外時，我們應保持鎮定，立即向老師報告，並依照老師的指示來處理。

*Fill in the blanks with the **Chinese meaning** of the following sentences

Accident 意外	Action 處理方法	Accident 意外	Action 處理方法
			
Cuts 輕微割傷	Clean the wound with water and apply a dressing to it 用水_____， 並用敷料覆蓋	Heat burns or chemical burns 被熱物燙傷或被化學品灼傷	Place the affected area under slow running water 把受傷的部位放在_____下 沖洗

Accident 意外	Action 處理方法	Accident 意外	Action 處理方法
			
Chemicals get into the eyes 化學品濺入眼睛	Wash the eyes with distilled water from an eye wash bottle 用_____內的 蒸餾水_____	Glass breakage 打破玻璃儀器	Clean up and dispose of broken glass pieces in a broken glass container 用掃_____玻璃碎片，然後把碎片 _____在指定的容器內

Accident 意外	Action 處理方法	Accident 意外	Action 處理方法
			
Gas leakage 氣體洩漏	Turn off the gas supply and open all windows and doors 立即_____ 掣及打開所有門窗	Fires 火警	Keep calm and report to your teacher at once _____並立刻向老師報告

B. Laboratory apparatus 實驗儀器

1. We use different **apparatus** to do experiments in the laboratory.

實驗室內有各種不同的儀器，可供我們進行實驗時使用。

Apparatus for holding substances

用來盛載物質的儀器



A



B



C



D



E



F



G



H



I

*Fill in the blanks with the **Chinese meaning** of the following sentences

Apparatus		Function
A	Gas jar	To collect () or hold () gases ()
B	Dropping bottle	To store () liquid () that will be used in drops ()
C	Watch glass	To hold a small amount () of liquids or solids ()
D	Evaporating dish	To hold a liquid to be evaporated ()
E	Measuring cylinder	To measure () the volume () of liquids
F	Boiling tube	To hold a larger () amount of liquids or solids
	Test tube	To hold a smaller amount of liquids or solids
G	Beaker	To hold liquids or solids
H	Conical flask	To hold liquids or solids
I	Reagent bottle	To store liquids

Other apparatus
其它儀器

*Fill in the blanks with the **Chinese meaning** of the following sentences


J

K

L

M

N

O

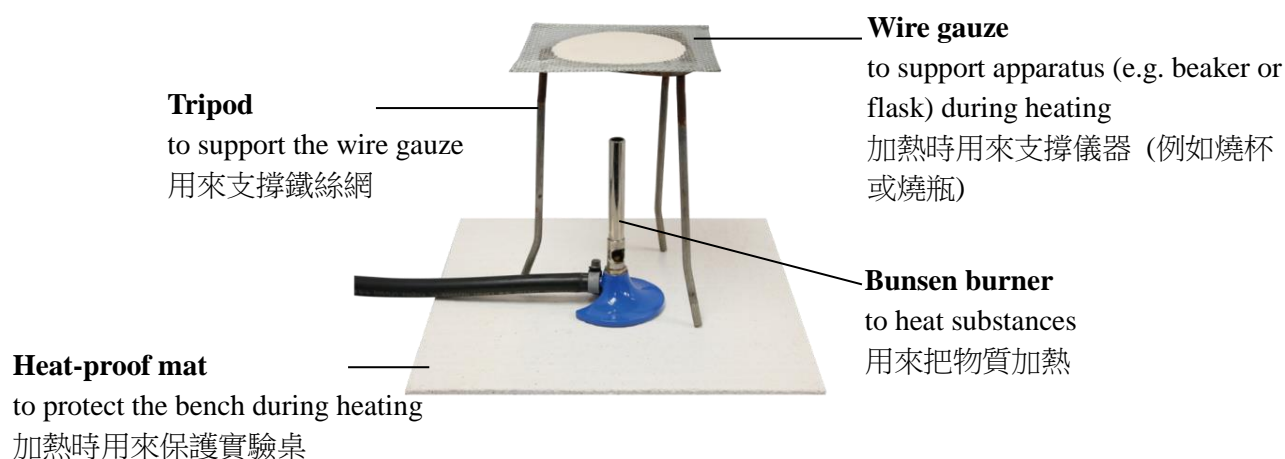
P

Q

R

*Fill in the blanks with the **Chinese meaning** of the following sentences

Apparatus		Function
<i>J</i>	Glass rod	To stir () liquids ()
<i>K</i>	Spatula	To transfer () a small amount of powder ()
<i>L</i>	Filter paper	To separate () solids from liquids during filtration ()
<i>M</i>	Test tube holder	To hold a test tube when heating ()
<i>N</i>	Test tube rack	To hold test tubes or boiling tubes safely ()
<i>O</i>	Tongs	To hold hot objects ()
<i>P</i>	Stand and clamp	To fix the positions () of apparatus ()
<i>Q</i>	Dropper	To transfer () a small amount of liquids
<i>R</i>	Funnel	To let liquids flow () down during filtration

Apparatus for heating**用來進行加熱的儀器**

C. Basic practical skills 基本實驗技巧

Note P.9

1. The skills for **transferring solutions** are shown below.

以下展示移取溶液的技巧。



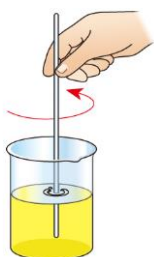
Transferring a large amount of solution by pouring
移取大量溶液時，可直接把溶液倒出



Transferring a small amount of solution using a dropper
我們可用滴管移取少量溶液

2. The different methods for **mixing solutions well** are shown below.

以下展示混合溶液的不同方法。



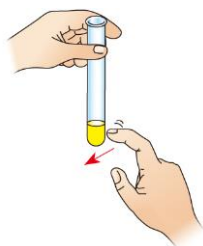
Method 1: 方法 1 :

Use a glass rod to stir the mixed solution
用玻璃棒攪勻溶液



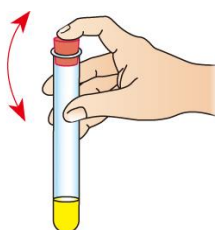
Method 2: 方法 2 :

Gently shake the test tube
輕輕左右搖動試管



Method 3: 方法 3 :

Tap the bottom of the test tube with the index finger
用食指輕敲試管底部



Method 4: 方法 4 :

Stopper the test tube and shake well
用膠塞把試管蓋上，然後搖勻溶液

Exercise P.1

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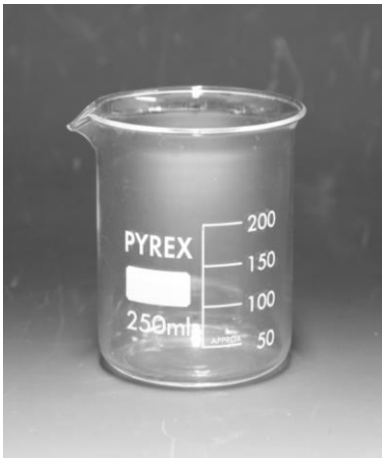
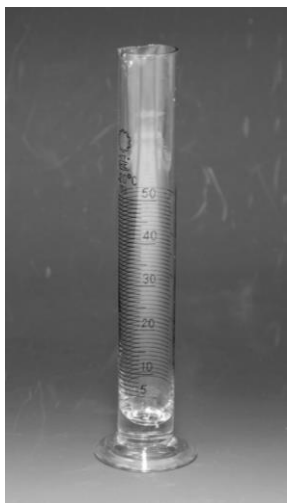
P6-S1 Link-up Exercise

Name: _____ ()

F.1()

Tasks to be done:

- I.** Complete all the parts referring to the **P6-S1 Link-up note**.
 - II.** Write down the Chinese meaning or English for all vocabularies in this exercise.
 - III.** A quiz will be given in the first Integrated Science lesson.
- 1.** Refer to **P6-S1 Link-up note** P1 and P6-8, write down the **name** of the following apparatus. And write down the **Chinese meaning** of each vocabulary in the brackets ().

 _____ ()	 a. _____ () b. _____ ()	 _____ ()
 _____ ()	 _____ ()	 _____ ()

Exercise P.2



()



Dropping bottle

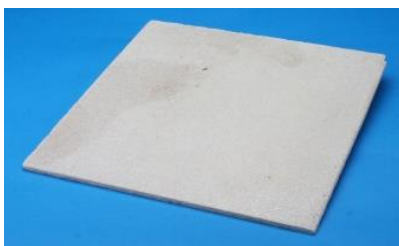
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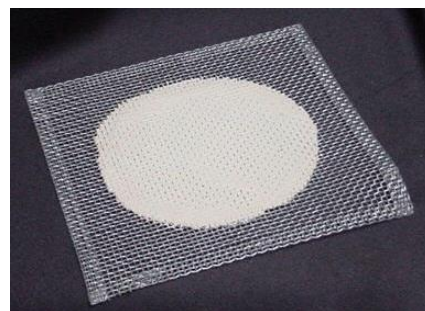
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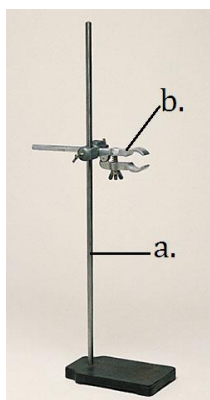
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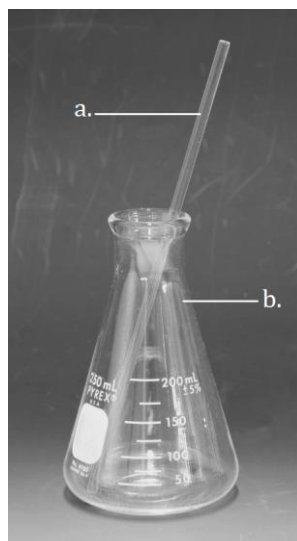


()



a. _____
()

b. _____
()

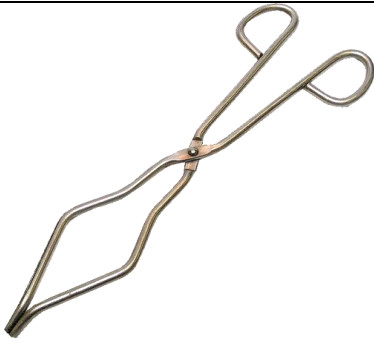


a. _____
()

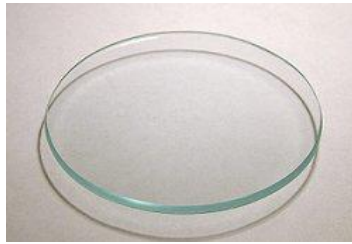
b. _____
()



()

Exercise P.3

()



()



()



()



()



()



()



()



()



()



()



()

Exercise P.4

2. Refer to P6-S1 Link-up note P2 and P3, fill in the blanks of the following sentences. And write down the **Chinese meaning** of each vocabulary in the brackets().

We should...








- (1) keep all _____ () and _____ () clear.
- (2) follow the _____ () given by the _____.
- (3) _____ () all accidents to the _____ at once.
- (4) wear _____ () when _____ or _____ substances ().
- (5) tie back _____ and fasten _____ when doing experiments to prevent them from _____ or dipping into _____ ().
- (6) wash _____ thoroughly () after _____ ().

We should NOT...








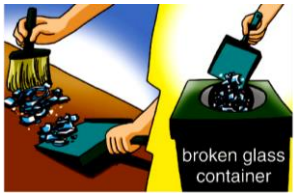
<u>We should NOT...</u>	<u>So, we should</u>
(1) enter the _____ () without teacher's permission.	e.g. <u>Enter the laboratory when the teacher is present.</u>
(2) do _____ () without teacher's permission.	_____
(3) _____, _____, _____ and _____, about in the laboratory.	---
(4) _____ () the _____ towards anyone when heating it.	_____
(5) leave a _____ unattended.	_____
(6) _____ () fingers or pens because there may be _____ or _____ () on them.	---

Exercise P.5





3. Refer to P6-S1 Link-up note P4, write down the meaning of following **hazard warning symbols**. And write down the Chinese meaning of each vocabulary.

			
()	()	()	()
			
()	()	()	

4. Refer to P6-S1 Link-up note P5, fill in the blanks of the following sentences. And write down the Chinese meaning of each vocabulary.

(1)		In case of small _____, you should clean and _____ the cut.	
(2)		In case of _____ or _____ on skin, you should wash the affected area with _____.	
(3)		If some chemicals get into your eye, wash the eye using an _____.	
(4)		If glass breaks, put the broken glass in a _____.	

Exercise P.6

(5)		In case of gas leakage, turn off the _____ and open _____ and _____.	
(6)		If you see a fire, you should report to _____ teacher at once and keep calm.	

5. [Challenging Questions] Refer to [P6-S1 Link-up note](#) P8-9 Part C, fill in the blanks with a suitable verb/word which shows the instruction always given by teachers.

- (1) _____ 10 drops of solution B to a test tube.
把 10 滴液 B 滴進 試管內。
- (2) _____ a boiling tube with water to one-third full.
在大試管內加入 三分之一。
- (3) _____ the solution from one test tube into the other.
把溶液從試管倒進 另一支試管。
- (4) _____ the test tube. _____ the solution well.
輕搖 試管，以混和 溶液。
- (5) _____ the solution with a glass rod.
利用玻棒攪拌 溶液。
- (6) _____ the beaker with a watch glass.
利用錶面玻璃蓋上 燒杯。
- (7) _____ the solution with a Bunsen burner.
利用本生燈加熱 液液。
- (8) _____ the time with a stop-watch.
利用秒錶計時。
- (9) _____ a thermometer in a beaker of water with a stand and clamp.
利用架和夾固定 溫度計，把溫度計放入一杯水中。

Exercise P.7

(10) _____ the apparatus as shown.

如圖所示，裝置實驗器材。

(11) _____ a Bunsen burner.

燃點本生燈。

(12) Light a wooden _____.

把木條點燃。

(13) _____ steps 1 to 3.

重複步驟 1 至 3。

(14) _____ the circuit as shown.

如圖所示，把電路接好。

(15) _____ the slide under the microscope.

利用顯微鏡觀察玻片。

(16) _____ the results in the table.

把結果記錄在表內。

~ End of P6-S1 Link-up exercise ~