ASPIRE HUB

EDUCATION

English Language
Sample Materials

Editing

There are two main classes of errors to edit – SPELLING and GRAMMAR. This is a section which you should score full marks. Each underlined words contains either a spelling or grammatical error. The correct word you provide must not change the original meaning of the sentence. There are six grammatical and spelling errors respectively.

Spelling

- no matter how mangled the misspelled word looks, it will **ALWAYS** still **SOUND** like the actual word.
- You will need to pronounce it as best you can **phonetically**, to be able to spell it correctly.
- If the misspelled word ENDS with **-s**, you **NEED** to add -s to your correctly spelled word.
- If the misspelled word ENDS with **-ed**, you **NEED** to add -ed to your correctly spelled word.
- If the misspelled word ENDS with **-ee / -ie** or some other form, you **NEED** to add -y to your correctly spelled word.
- If the misspelled word ENDS with **-ing** / **-eeng** or some other form, you **NEED** to add -ing to your correctly spelled word.

	Misspelled Word	**Corrections**
1	absance	
2	accomodate	
3	acumulate	
4	appearence	
5	atheletic	
6	calender	
7	cemetry	
8	comittee	
9	definately	
10	dinning table	

29	serverely	
30	similiar	
31	sincerly	
32	truely	

Grammar

1. **Word Form** (refer to page 10)
    a. Noun
    b. Pronoun
    c. Verbs
    d. Adjective
    e. Adverbs
2. **Subject Verb Agreement**

    Basic Principle: Singular subjects need singular verbs; plural subjects need plural verbs. My **brother is** a nutritionist. My **sisters are** mathematicians.

3. **Preposition**
4. **Tenses**
5. **Verb Forms**

For example:

Incorrect: John had ate his dinner.

Correct: John **had eaten** (past participle) his dinner.

6. **Conjunctions**
7. **To + Infinitive**

For example:

Incorrect: The iceberg caused the boat to capsized.

Correct: The iceberg caused the boat **to capsize**.

8. **Articles**

2. Phrasal Verbs

For example:

*She has always **looked down on** me.*

*Fighting **broke out** among a group of men.*

*They **set off** early to miss the traffic.*

*When the door is opened, it **sets off** an alarm.*

3. Contextual Clues

Many of the answers depend on the clues in the passage. Contextual clues are hints that an author gives to help you derive your answer. The clue may appear within the same sentence or it may follow in a preceding sentence.

For example:

I **had already been a teacher** for fifteen years when I **met my greatest teacher**. It was **not in a** _____ **but** in a **hospital**.

Contextual clues: 'had already been a teacher', 'met my greatest teacher', not in a ... but in a hospital'

Answer: **school**

4. Connectors

Connectors are linking words to give coherence to a paragraph

TRANSITIONAL DEVICES	
To Add	and, again, and then, besides, equally important, finally, further, furthermore, nor, too, next, lastly, moreover, in addition, first (second, etc.)
To compare	whereas, but, yet, on the other hand, however, nevertheless, on the contrary, by comparison, compared to, although, conversely, meanwhile, in contrast
To show time	immediately, thereafter, soon, after a few hours, finally, then, later, previously, formerly, first (second, etc.), next, and then
To show sequence	first, second, third, and so forth. next, then, following this, at this time, now, at this point, after, afterward, subsequently, finally, consequently, previously, before this, simultaneously, concurrently, thus, therefore, hence, next, and then, soon
To show exception	yet, still, however, nevertheless, in spite of, despite, of course, once in a while, sometimes

UNLESS

(a) When it is used to mean ***'if not'***, the main clause is negative while the 'unless' clause is in the affirmative (positive).

If you tell us what happened, we can help you.

[1] ***Unless*** *you tell us what happened, we cannot help you.*

[2] We cannot help you ***unless*** *you tell us what happened.*

(b) When it is used to mean ***'except when or if'***, the main clause and the 'unless' clause are in the affirmative.

We will not go swimming if it rains.

We will go swimming ***unless*** *it rains.*

Direction 1: Identify and underline the error(s) in the *italicised* sentences. Rewrite your answer(s) on the lines provided below.

1. You will get wet. You have to wear a raincoat.

You will not get wet unless *you wear a raincoat.*

_____ **unless**

_____.

2. If the referee blows the whistle, the match will stop.

The match will stop unless *the referee blows the whistle.*

_____ **unless**

_____.

3. Jamie will be late for the flight. He must leave his house before noon.

Jamie will be late for the late unless *he does not leave his house before noon.*

_____ **unless**

_____.

4. I will eat plain porridge only when I am sick.

I will eat plain porridge unless *I am sick.*

_____ **unless**

_____.

5. Simon brushes his teeth regularly. He will not get a tooth decay.

Simon will not get a tooth decay unless *he does not brush his teeth regularly.*

_____ **unless**

_____.

6. You will not get to play games until you have finished your homework.

Unless *you finish your homework, you will get to play games.*

Unless _____

_____.

7. The rabbit will appear out of the hat. The magician says the magic words.

Unless *the magician says the magic words, the rabbit will appear out of the hat.*

Unless _____

_____.

8. We cannot play basketball. The balls are not inflated.

Unless *the balls are inflated, we can play basketball.*

Unless _____

_____.

Comprehension Reading Strategies

1. Visualising

Visualizing refers to our ability to create pictures in our heads based on text we read or words we hear. It is one of many skills that makes reading comprehension possible.

Visualizing strengthens reading comprehension skills as we gain a more thorough understanding of the text we are reading by consciously using the words to create mental images.

Sample passage:

With an iron will, he paddled to the surface frantically. He yanked at the surfboard, climbed on, and pointed it towards shore. But within seconds he was hit again brutally. A robust 3-meter great white shark had him in its jaws. The shark had lamped down on his back with three rows of triangular, serrated teeth. Endris felt no pain, only a tremendous pressure as the skilful and aggressive predator dipped him beneath the roiling water and shook him back and forth in its powerful jaws.

2. Making connections/annotations

There are many words in a passage that refer to one another. Sometimes, the reference of the words may not be very obvious and you will have to infer (deduce or conclude) from the story to understand what the words are referring to.

In the text below, “there” refers to Genoa, while we know that Marco is familiar with ‘these kinds of briefings’ as it is mentioned in the previous paragraph that he, together with his team, had been flying from city to city for the previous month for competitions.

As such, you are encouraged to underline/circle the ideas in the passage, and draw arrows to connect these inferences made.

The seven teenagers hurried towards the airport gate, bursting with excitement. Italy’s national under-16 swimming championship was taking place in Genoa and the boys were going to compete **there**. They had been flying from city to city for the last month for competitions.

14-year old Marco Sulis looked around for his best friend, Daniel Sedda, and sat next to him. Their coach sat near them. While preparing for take-off, the flight attendant began her safety briefing. Most of the passengers paid no attention but Marco would later remember all her words. He was familiar with **these kinds of briefings**, and besides, the teenager was naturally attentive.

3. Read and analyse questions

Circle the question word(s)

E.g. Why was Marco familiar with “these kinds of briefings”?

Question words	What the question is asking for
What / Which	State
How	Explain
When	Time
Why	Reason
Where	Place

Bracket the keywords and underline tense markers

E.g. When [no one stopped to help him], why did Marco know that he [had to help himself] when he was [pinned down by the emergency door]?

Composition

"Show", not "Tell"

"Show", not "Tell" means you must demonstrate action and create a vivid scene for readers through your writing instead of having a narrator just talk about action. Readers can imagine and picture the scene as a result.

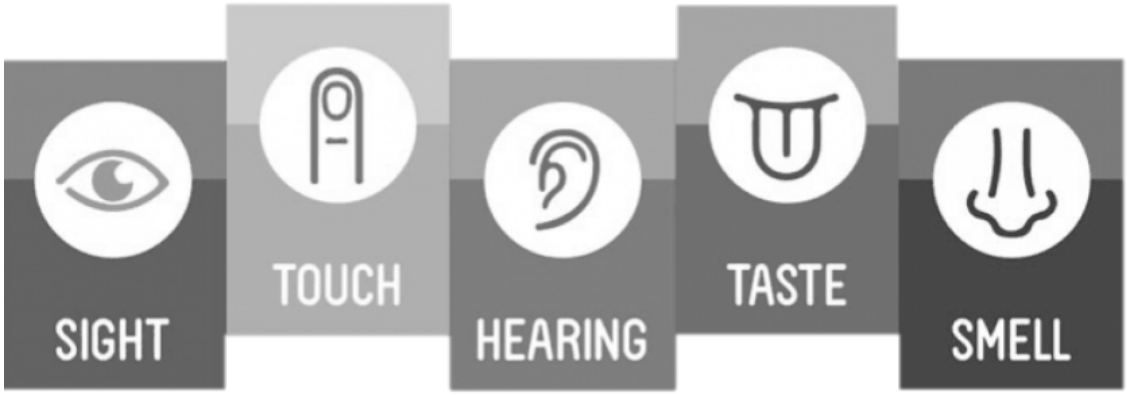
When you show rather than tell, you make the reader part of the experience. Rather than having everything simply imparted to him, he see it in his mind and comes to the conclusion you want.

Telling	**Showing**
• Factual • Brief • An efficient way to communicate data and statistics • Prefers to avoid detail and mainly express ideas with broad overarching messages • Is not necessarily human-centred, and as a result, does not really stir the heart	• Human-centred, more emotions • Slower, richer and more expansive way to communicate • Not efficient • Loves details • Tends to place the human subject right at the centre of things, and as a result, can often stir the heart

How should we "show"?

1. **Use description details**

Appeal to the five senses to describe a place, person or thing.



3. **Use dialogue or the character's thoughts**

Other than using suitable vivid verbs to describe actions, you can also include the following elements to show how a character is feeling:

- Dialogue
- Character's thoughts and feelings

Your dialogue should be meaningful and can let your reader 'see' how the characters are behaving. Be careful! Do not include too many dialogues in your composition.

Example	**Purpose**
A roar emerged from her mouth. "I….I can't find my phone. It's missing."	
He took a bite and quickly spat out the pancake. "Darlene! You put too much baking powder in the pancakes again!"	

Exercise 1:

"Show"	**"Tell"**
The harder I tried to keep my mind from wild thoughts, the faster it raced. How is Mother feeling now? I wondered worriedly. Upon reaching the hospital, I saw Father pacing up and down the hospital corridor outside the operating theatre nervously. His wrinkled and weathered face was flustered and he stole worried, furtive glances at the door of the operating theatre from time to time. "How is mother? Is she better?" I asked in a concerned voice. *Adapted: Eureka Primary Book 2 by Diana Tham*	My father was _____ while waiting for the operation to end.

1) What word would you write in the blank?

.....

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Math Sample Materials

Problem C

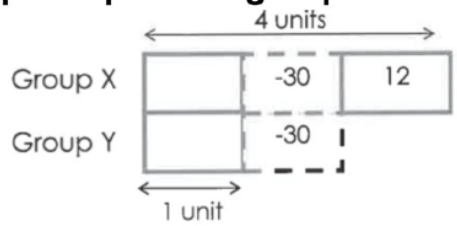
There were two groups of participants in a friendly match. There were 12 more participants in group X than in group Y. When 30 participants from group Y left the group, the number of participants in group X was 4 times the number of participants in group Y. How many participants were there in group X?

Problem C

There were 12 more participants in group X than in group Y.

When 30 participants from group Y left the group.

The number of participants in group X was 4 times the number of participants in group Y



Therefore, 3 units -> 30 + 12 = 42

1 unit -> 42 ÷ 3 = 14

Number of participants in group X -> 1 unit + 30 + 12

-> 14 + 42

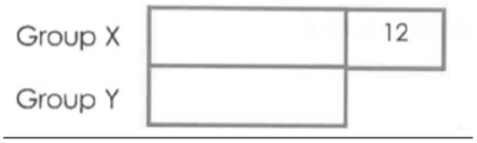
= 56

Problem D

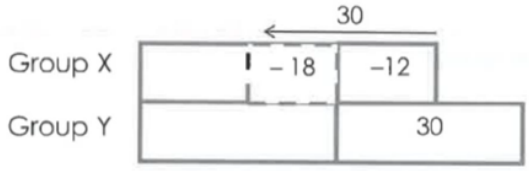
There were two groups of participants in a friendly match. There were 12 more participants in group X than in group Y. When 30 participants from group X left to group Y, the number of participants in group Y was 4 times the number of participants in group X. How many participants were there in group X at first?

Problem D

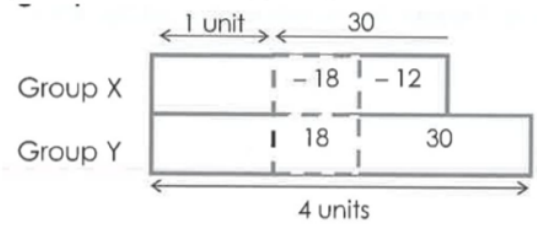
There were 12 more participants in group X than in group Y.



When 30 participants from group X left to join group Y,



The number of participants in group Y was 4 times the number of participants in group X



Therefore, 3 units-> 18 + 30 =48

1 unit-> 16

Number of participants in group X at first -> 1 unit + 30

-> 16 + 30

= 46

Ratio

Grouping and comparing number of items with and against value of items

Problem A

At a party, there were 80 children. Each boy was given 3 balloons and each girl was given 2 balloons. If a total of 190 balloons were given out, find the number of boys at the party.

Problem B

At a party, the ratio of the number of boys to the number of girls was 3 : 5. Each boy was given 3 balloons and each girl was given 2 balloons. If a total of 190 balloons were given out, find the number of boys at the party.

Problem A

In Problem A, the relationship with regards to the number of boys and the number of girls was not given except the total number. As such, we would usually approach by the heuristics of assumption or guess and check to calculate the number of boys with the total number of balloons given.

Assuming all the children are girls
Number of balloons received by the girls-> 80 x 2 = 160 balloons
Difference in balloons due to the 'wrong assumption' -> 190 balloons – 160 balloons = 30 balloons

Number of boys -> 30 balloons ÷ (3 – 2) balloons
= 30 boys
If we choose to assume that all children are boys at the beginning, the end results would be calculate the number of girls.

When we assume all children are girls at the beginning, we are removing 1 balloon from each child who is actually a boy. Hence the difference in calculation would be 1 balloon per child

Percentage

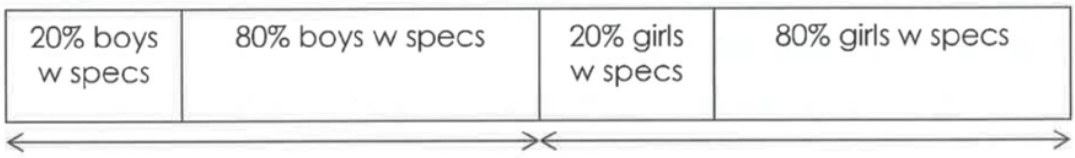
To find a part of a whole or a part-whole

Since percentage is primarily a fraction which is part of a while, it is important that we recognize that there are different wholes and different part-wholes.

Take a look at the 2 statements below. Are both percentages representing the same number of children?

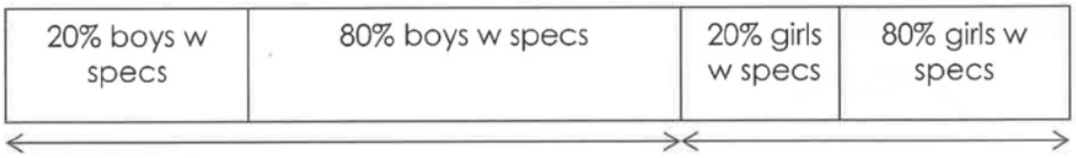
20% of the boys wear spectacles	20% of the girls wear spectacles

Scenario 1



The number of boys and girls are equal.

Scenario 2



There are more boys than girls. The 20% is not equal.

Problem A

40% of the people watching the concert were men. 30% of the people were boys and the remaining people were women and girls in the ratio of 3 : 2. If there were 66 more men than women, how many people were at the concert?

Problem B

40% of the people watching the concert were adults. 30% of the adults were men and the ratio of boys to girls was in the ratio 3 : 2. If there were 60 more girls than men, how many people were at the concert?

Problem A solution 1

Compare 30% with 5 small boxes, we can conclude that 1 box is equal to 6% thus women -> 18% and girls -> 12%

Therefore, difference between men and women -> 40% - 18% = 22%
If, 22% -> 66
1% -> 3
Total number of people -> 100% -> 100 x 3 = 300

Problem A solution 2

Therefore, difference between men and women -> 40% - 18% = 22%
If, 22%-> 66
1%-> 3
Total number of people -> 100% = 100 x 3 = 300

Simultaneous – Parts of different wholes

Example 1

There was an equal number of boys and girls in a hall. After $\frac{1}{3}$ of the boys and $\frac{1}{2}$ of the girls left the hall, there were 1260 pupils remaining in the hall. How many boys left the hall?

*Since there was an equal number or boys and girls in the hall at **first**, make the **denominators** the same.*

	left	remained
Boys	$\frac{1}{3} = \frac{2}{6}$ (2u)	$\frac{2}{3} = \frac{4}{6}$ (4u)
Girls	$\frac{1}{2} = \frac{3}{6}$ (3u)	$\frac{1}{2} = \frac{3}{6}$ (3u)

Total pupils remaining = 4u + 3u

= 7u

Ratio – Number x Value

1. The number of sheeps to the number of goats in a farm is 8:2. When 25% of the sheeps and 50% of the goats left the farm, there were 255 more sheeps than goats in the end. Find the total number of sheeps and goats in the farm at first.

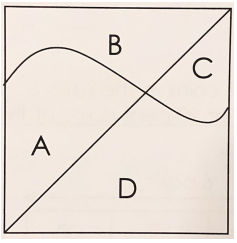
Ratio - Units and parts

Example 1

The given figure illustrates a square.

The ratio of the area of A to area of D is 2:3.

The ratio of the area of B to the area of C is 3:1.



Is the area of D and the area of B the same size since they are both represented by 3 units?

Think!

Since A + B = D + C = $\frac{1}{2}$ of the rectangle, why are their total units different from one another?

A + B = 5 units D + C = 4 units

Answer: The units represented by area A and area D are different from the units represented by area B and area C.

Therefore, the word 'parts' is used to represent the other set of units.

A : D = 2 units: 3 units and B : C = 3 parts : 1 part

Therefore,

since A + B = D + C = $\frac{1}{2}$ of the rectangle,

2 units + 3 parts = 3 units + 1 part

1 unit = 2 parts

Converting all the units into parts, the ratio is represented:

A : D = 4: 6
B : C = 3 : 1

1. 65% of the animals on a farm were cows and the rest were goats. When 240 more cows and goats were added to the farm, the percentage of cows increased by 20% and the number of goats doubled. How many goats were there on the farm at first?

Cows at first = 65%

Goats at first =

Added 240 cows and goats

20% of cows added =

% of goats added =

Total cows and goats added =

"Strive for progress, not perfection." – Unknown

ASPIRE HUB

EDUCATION

Science Sample Materials

Answering Techniques for each "Command Word" used

Approaching "**State**" Questions:

Give the textbook definition (meaning) of Science key words/phrases/concepts directly without the need to application using contextual evidence(s).

Approaching "**Give a reason**" Questions:

Directly provide Scientific Factors learned related to question context as the "reason" without the need to apply with evidence.

Approaching "**Compare**" Questions:

Using "Both" to answer questions on "Similarities" with relevant Scientific Factors.

Using "whereas, however, but, while...etc" to answer questions on "Differences" with relevant Scientific Factors.

* "-er" should be used for only 2 subjects.
* "-est" should be used for more than 2 subjects.

Approaching "**Predict/Suggest possible**" Questions:

Using contextual clues to analyse any related Scientific Factors learned as the reason/solution for the question.
*Usually more than one possible answer.
Students may need to think out of the box or have examples of concepts for the exam.

Approaching "**Describe**" Questions:

Show the clear Process of Events leading to the questions requirements without the need to explain each of the Steps in detail.

Approaching "**Explain**" Questions:

"S" - Since

"E_1" - (Contextual) Evidence from Question

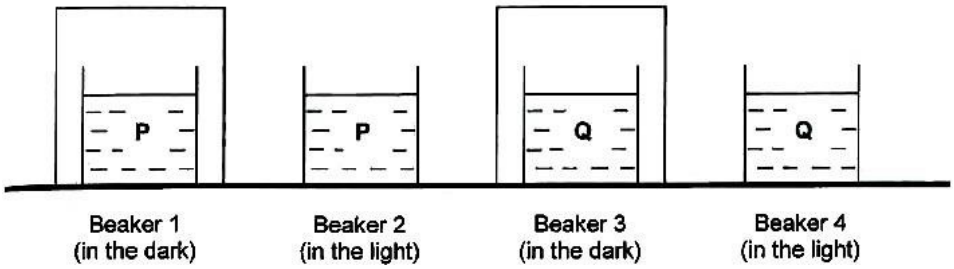
"E_2" - Elaborate **E_1** with a Scientific Factor learned as reason

"T" - Therefore/Thus (Hence)

"A" - Apply the Scientific Factor to Question Subjects/Events

SE_1E_2TA Method
Proving the "Cause" with Contextual Evidence and applying to the "Effect" with Scientific Factors learned.

1. A scientist found two organisms, P and Q, in a pond. He wanted to find out if they were animals or plants. He filled four beakers with water from the pond. He placed Organism P in Beakers 1 and 2, and Organism Q in Beakers 3 and 4. Beakers 1 and 3 were placed in the dark. Beakers 2 and 4 were placed in the light.



He added a drop of liquid X in each beaker. The table below shows the colour of liquid X in the presence of more oxygen or more carbon dioxide.

	When more oxygen is present	**When more carbon dioxide is present**
Colour of liquid X	Blue	Yellow

At the end of two hours, the following results were obtained.

Beaker	**Colour of Liquid X**
1	Yellow
2	Yellow
3	Yellow
4	Blue

a) Based on his results, the scientist concluded that P was an animal. Explain how he arrived at this conclusion. [1]

_____

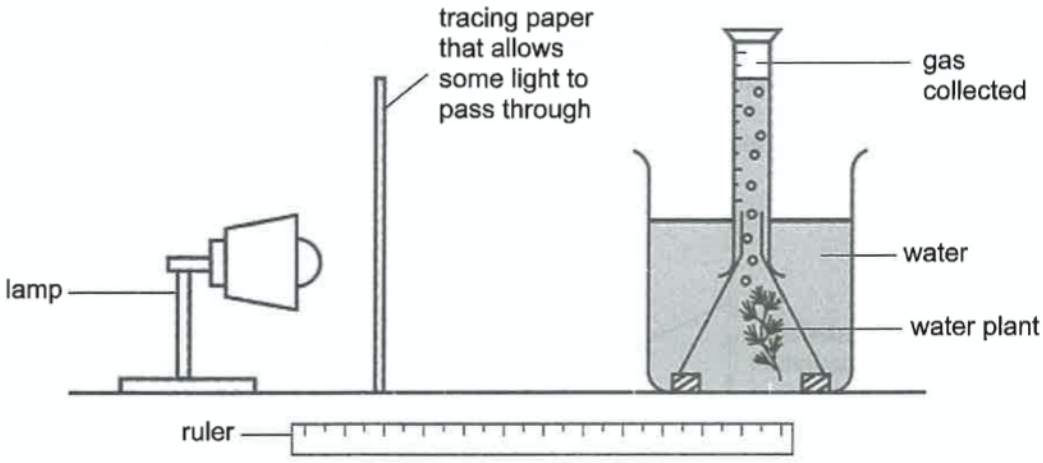
_____

b) Name the process that took place in Beaker 4. Explain how this process caused the change in colour of liquid X. [2]

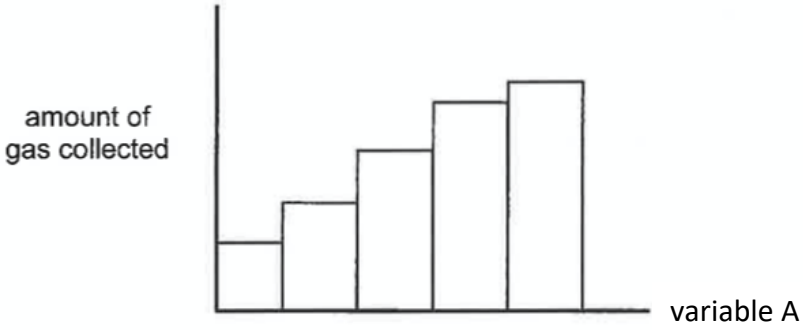
_____

_____

2. Damina conducted an experiment on photosynthesis in a dark room using the set-up below. She measured the amount of gas collected in the measuring cylinder after some time.



Damina repeated her experiment by increasing variable A and keeping all other variables constant. Her results are shown below.



a) Why did Damina conduct the experiment in a dark room? [1]

_____

_____

b) What is variable A? [1]

_____

_____

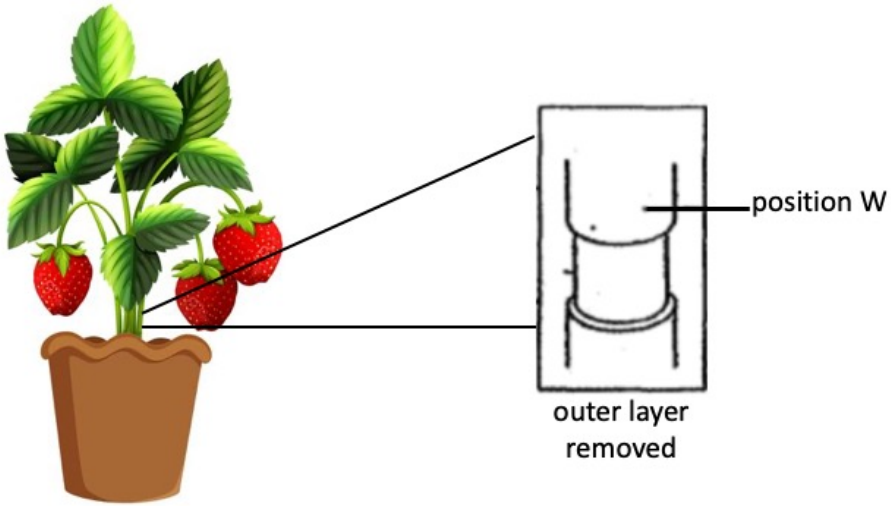
15. A farmer planted some strawberries in his greenhouse. To produce sweet strawberries, he must ensure that the plants get at least eight hours of sunlight daily.

a) Suggest how having at least eight hours of sunlight daily may help in producing sweet strawberries. [2]

_____

_____

The farmer cut the outer layer of some of the stems so that larger strawberries can be produced.



b) What would the farmer observe at position W. [1]

_____

_____

c) How does cutting the outer layer of the stem help in producing larger strawberries? [1]

_____

_____

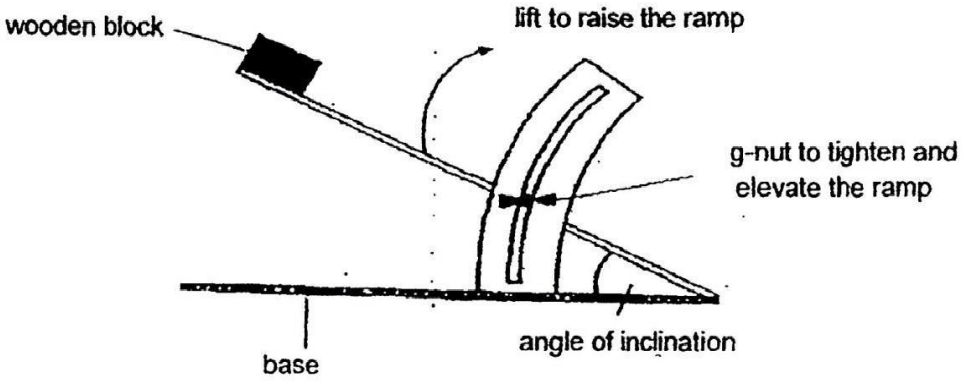
13. Tom noticed that the school attendant always puts up a sign outside the toilet after she has washed and mopped it.

a) Explain why someone could slip and fall when the floor is wet. [1]

_____

_____

Tom experimented with three types of anti-slip mats, S, T and U by placing them on an adjustable ramp. He placed a wooden block on the ramp surface and raised the ramp until the wooden block started moving as shown below.



He adjusted the angle of inclination of the ramp and recorded his results in the table below.

Anti-slip mat	Angle of inclination when wooden block stats to slide down
S	30°
T	65°
U	48°

b) Explain how keeping the mass of the wooden block the same makes the experiment fair. [1]

_____

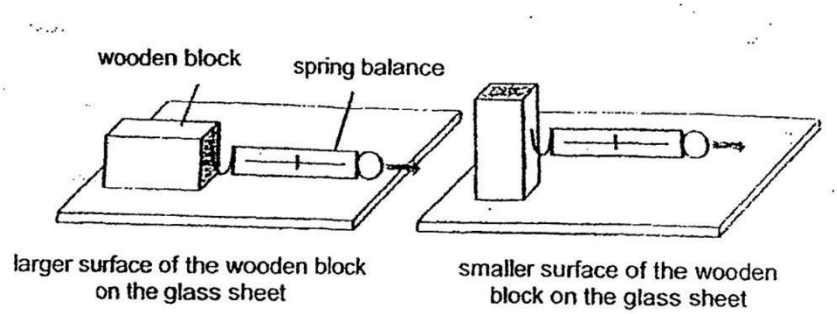
_____

c) Based on Tom's results, which anti-slip mat is best at prevent people from slipping? Give a reason for your answer. [1]

_____

_____

14. Kai carried out an investigation as shown below. He pulled the wooden block by placing its larger surface on the sheet of glass. He then measured the force needed to start moving the block along the glass surface. He repeated the experiment with the smaller surface of the wooden block on the sheet of glass.



He recorded his results as shown below.

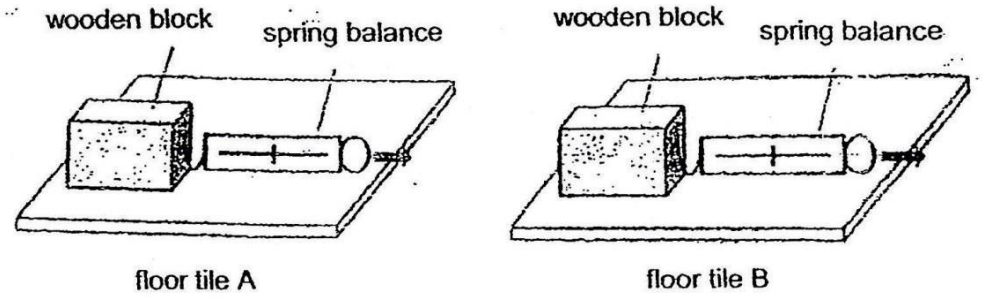
Surface area of wooden block resting on the glass sheet	Force needed to move the block (units)			
	1st try	2nd try	3rd try	4th try
Smaller	4.5	4.3	4.4	4.4
Larger	4.2	4.5	4.5	4.4

a) What can Kai conclude from the experiment? [1]

_____

_____

Kai wanted to choose a suitable type of floor tiles for the bathroom floor in his new flat. He repeated the earlier experiment using the same set-up, only replacing the glass sheet with floor tiles A and B as shown below.



He recorded his results as shown below.

Floor tile	Force needed to move the block (units)			
	1st try	2nd try	3rd try	4th try
A	5.3	5.4	5.5	5.4
B	8.5	8.5	8.2	8.4

b) Which type of floor tile, A or B should Kai use for the bathroom floor so that he would not slip and fall easily? Explain your answer. [2]

_____

_____

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EDUCATION

Chinese Language
Sample Materials

第一课　作文精修精练

1　写出生动而有意义的文章

帮助词语

手杖	等德士	年轻人	抢先
生气	拐杖	受伤	礼让

2 写空图和结尾的方法

（一）如何完成最后一个空图

六个图的作文，最后一个空图，是让学生发挥想象，自己选择故事发展的结果。

要特别注意的是：

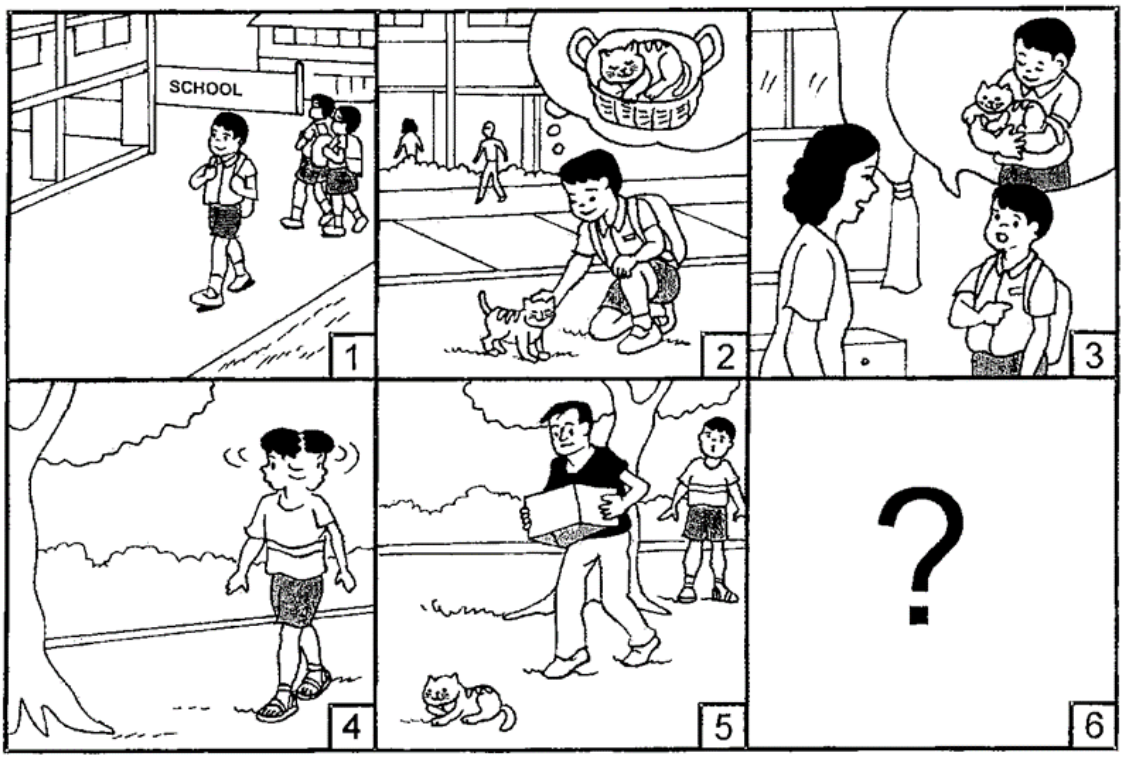
1. 结果要合理，不要写稀奇古怪的结果。
2. 不要写到最后还是没有结果。
3. 不要在最后的空图里发展一段新的故事。
4. 故事的结局避免落入俗套，就得有点创意和巧思，让人读了有惊喜的感觉。

看图作文，在最后一个空图写出事情的结果后，还可以给文章一个结尾。**结尾写得好，文章的结构才算完整。**

（三）统整练习

参考所学，根据以下的图画，写一段结局，加上结尾。

爱护小动物（2013 年会考看图作文）



帮助词语

放学后	逗着玩	好主意	请求
寻找	担心	怀疑	抱着纸盒

第二课　阅读理解一、二

（一）怎样做阅读理解一

阅读理解一是多项选择，一个篇章，5 题 10 分；这个部分考查的是对篇章故事的理解。

做阅读理解一的三个招式

1. 细读全文，**在重要的句子或词语下划线**，掌握原文大意主旨。
2. **找出问题中关键性词语或短语，看清楚题目要求**，到故事中寻找答案。弄清问的是原因还是结果，或是隐藏在故事中的答案。
3. **对照原文内容，验证答案正确与否，先除去最不可能的答案。**除去一个，就少一个选错的机会。

（二）阅读理解一【指导题】

一天傍晚，我放学回家，走在我前面的一个大姐姐，回过头看了我一眼后，突然停下脚步，开口问我：“你住在大牌36，对吗？”**我吓了一跳，心想：她怎么会知道？**

我仔细看了看她，觉得好像在哪里见过，于是礼貌地回了她一声：“是的。”

她也许看出我的不安，连忙解释：“我住在你家楼上，我们曾经在电梯里碰过几次面，**只是你每一次总是低着头看手机。**”

作答提示：

Q1的答案在第一段找，注意那些黑体字。

Q2的答案在第三段找。

（四）怎样做阅读理解二

阅读理解二有两个篇章，多项选择和开放式作答，共 11 题 32 分。题目内容取材于篇章、新闻、广告、通告等。根据生活语料，设置有考查书面互动能力的题型。

阅读理解二考查学生对文章内容和所发问题的理解，包括：

- 全篇内容的**中心思想**，经常问的是：
  这个故事主要说明了什么道理？
  你从这个故事中得到什么启发？
- 对文章或故事中的事理、逻辑的**推论能力**，比如问：事情的原因、结果，或是人物、事件之间的关系，或是比较两者的不同等等。
- 作答时的语文**表达能力**，文句不通顺、错字多都会被扣分。
- 对文中一些词语、短句、熟语的**理解**。
- 根据生活语料，考查**书面互动**能力。

做阅读理解二，要注意：

1. **细读全文**，把全文的中心（最重要的部分）找出来。
2. 仔细推敲问题的意思，针对问题来回答，**不要大段地照抄原文。**
3. 遇到需要发挥的题目，**原文中没有直接的答案，就要用自己的话作答。**
   比如：a 依你看，如果……你认为结果会怎样？
   b 请你说出✕✕✕的两个优点。
4. 有些题目的答案要从全文去找，不一定是照题目次序排列。比如第一道题的答案可能在第三段文字。

第三课　看录像会话与听力测试

（一）大家来讨论

看一段录像，然后回答老师的问题。

旁述：户外学习能够给学生不同的学习体验。

我看到……

（四）看录像说话

小六会考口试中，主考老师会问三个问题。针对这段录像，主考老师会问什么问题呢？这些问题是什么级别呢？

		级别 / 难度
第一题	谈一谈短片中男生的日常生活习惯。	第一级
第二题	你的饮食和生活习惯跟短片中的有什么不同吗？说一说。	第二级
第三题	为什么我们在饮食和生活方面应该有良好的习惯？	第三级

如果主考老师问这三个问题，你有信心回答吗？试一试。

（五）听力

成绩：_____/20 分

理解篇章一

先听一则通告，听完后，回答问题 1。

Q1. 这则通告的主要目的是什么？……（　　）

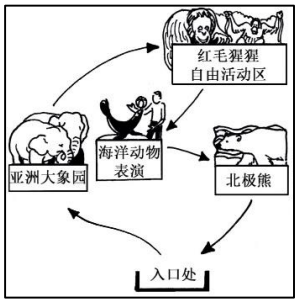
1. 提醒公众前往领取奖牌和动物园门票。
2. 呼吁公众参加六公里的非竞赛性义跑。
3. 通知公众有关义跑的参赛方式和详情。

理解篇章二

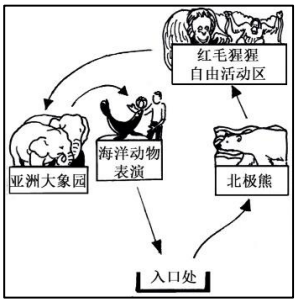
接下来听一则指示，听完后，回答问题 2。

Q2. 同学们要参观动物园会经过哪一条路线？……（　　）

1.



2.



3.