Aligning objectives in the L-T-A loop

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Principal

English Across Curriculum

- Background:
  - School operates both EMI and CMI classes after the fine-tuning of MOI Policy.
  - Subject involved:
    - F.1-F.3 Integrated Humanities
    - F.1-F.3 Integrated Science
    - F.1-F.3 Mathematics
    - F.3 Integrated Business
    - English

Difficulties Encountered

– A few non-language subject teachers hold the view that teaching language in their subject context is not their responsibility.

– Some non-language subject teachers think that they are not professional to teach English Language

– The scope of language items to be taught in each non-language subject are not well-defined.

Tackling the Difficulties

- Building capacity of teachers (PD programmes)
- Draw teachers together through compromising the needs of students and teachers capacity

— Building subject vocabulary
— Focusing on reading and writing in the early stage
— Recognizing generic sentence patterns

What/whom?
How?
Where?
When?
Why

Subject Group   +   Verb Group   +   other information   + conjunctions

http://elop.ust.hk/portal

Expanding meaning / elaborating terms

— Setting language objectives in the subjects involved
— Setting language assessment objectives in Test and Exam.

Reading Comprehension – The Elop system

☑ select all ☐ select all main groups ☐ select all top level groups

Through scientific investigations, scientists have made many discoveries.

These discoveries have improved our understanding of the natural world.

For example, Antoi van Leeuwenhoek discovered that micro-organisms exist everywhere and some diseases were actually caused by micro-organisms.
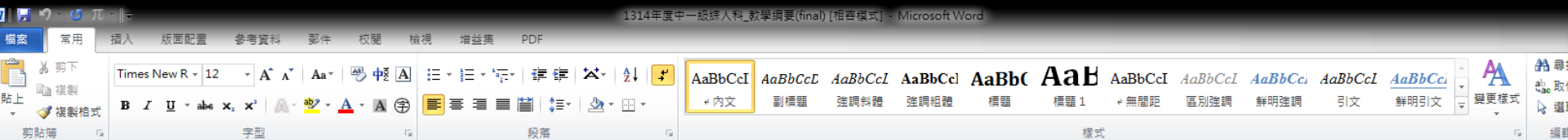
This opened up a new world of microscopic life and promoted medical development.

F.1 Integrated Science Curriculum Document

Topic	Learning objective	Language objective	
		Sentence	Vocabulary
1.1 Science and us	- **Develop interest in science** - **Be aware of the scope of science and the work of scientists** - **Understand the meaning of, and difference between, scientific discoveries and inventions, and their influence to society** - **Understand the nature and limitations of scientific knowledge**	1. <u>Definition:</u> e.g. …… is …… - --- e.g. Discovery is the finding of a material / phenomenon which exists in nature but others do not know it . e.g. Invention is the making of a product by applying scientific knowledge. **2. Compare and Contrast:** e.g. _____ , while _____ . Discovery is the finding of a material / phenomenon which exists in nature but others do not know it e.g. microorganism while invention is the making of a product by applying scientific knowledge, e.g. microscope.	**Science / biology / chemistry Physics / discovery / Invention / scientist / Hypothesis / conclusion Experiment / harmful / observation**

F.1 Integrated Humanities Curriculum Document

Unit	Lesson	Topic	CAL (cognitive academic language)	Genre output & teaching objectives	Exercise Format
Unit 2 Asia and China Map (Late-Nov)	2.1	Map of Asia & China	➤ Cities of China ➤ Countries in Asia	Definition: Students can name and locate the main cities of China and main countries of Asia	➤ Fill in the blank ➤ Matching ➤ Dictation
	2.2	Geographical Symptoms of Chinese Territory	➤ The Huanghe River ➤ The Chuang Jiang River ➤ The Zhu Jiang River ➤ Plateau ➤ Basin ➤ Plain ➤ Landscape	Definition: Students can identify the main geographical symptoms of China.	➤ Fill in the blank ➤ Matching ➤ Dictation
	2.3	Criteria for choosing a Capital	➤ Water supply ➤ Weather	Skills (2.3): Criteria for choosing a Capital Key skills: Making choices and explanation 1. Reasoning: Ss can give reasons for choosing the best capital according to the criterion learnt. (political and historical factor/ economic factor/ military/topography/climate/social factor) 2. Writing in aspects: Ss can summarize the paragraph in different aspect by using 'for'. 3. Writing a paragraph: Ss can write a paragraph with topic sentences (aspects) and supporting evidence.	➤ Fill in the blank ➤ Short paragraph (Writing a paragraph: topic sentence, supporting details)

Exercises:

➢ Knowledge: Worksheet_2.3.1(4) – Table

	Topography	River	℃	rainfall
Beijing	on North China plain	a canal	-4-8℃	24-28℃

➢ Avtivity_Worksheet_2.3(6): **Making choices and explanation**

Introduction: Beijing is / is not a suitable city to be the capital of China.

Argument: For topography, there is enough water for farming and drinking.

Clues: Because there is a canal built to provide water for Beijing. Beijing is also on the North China Plain which provides vast flat land for farming.

F.3 Integrated Business Curriculum Document

Module	Topic	(CAL) Cognitive academic language	Language objectives	Exercise Format
Module I: Advertising	Types and functions of advertising	Advertisement Persuasive advertising Informative advertising Brand name Brand loyalty Advertising medium Unethical Exhibition Periodicals Goodwill Junk mail	Writing definition and description (e.g.Define X / What is X: ● X means…/X is…/X refers to…. State X: ● First,… Second,… Third… Discuss the advantages/ disadvantages of…..: ● The advantages / disadvantages of…are that… Extracting information: ● According to the information given above, …….	Dictation Fill in the blanks Data analysis True/False Short questions Matching

- Language objectives from various subjects are compiled to allow teachers of different subjects to know more about what a student knows in language aspect.

- Teachers can also share in meeting their ways to achieve the objectives in classroom teaching.

Language Objectives across Curriculum

Language Objectives	IH	IS	Maths
Form 1	Skills (2.3): Criteria for choosing a Capital Key skills: Making choices and explanation 1. Reasoning: Ss can give reasons for choosing the best capital according to the criterion learnt. ·· (political and historical factor/ economic factor/ military/topography/climate/social factor) 2. Writing in aspects: Ss can summarize the paragraph in different aspects by using 'for'. 3. Writing a paragraph: Ss can write a paragraph with topic sentences (aspects) and supporting evidence. Exercises: ➢ → Fill in the blank ➢ → Short paragraph Writing a paragraph: topic sentence, supporting details ➢ → **Knowledge: Worksheet_2.3.1(4)—Table** 		Topography	River	℃	rainfall
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Beijing	on North China plain	a canal	-4-8℃	24-28 ℃ | ➢ → **Avtivity_Worksheet_2.3(6): Making choices and explanation** **Introduction:** Beijing is / is not a suitable city to be	**Unit 1** ● → Students <mark>recognise</mark> various sentence patterns for describing 'definition', 'compare and contrast' 'uses of apparatus', 'the giving mild obligations', 'giving procedure' and 'describing relationship between variables'. ● → Students can write sentence structure for giving the uses of apparatus. **1.1** 1. **Definition**: ·· (· · ...... **is** ......·) · | Term	Explanation
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Discovery	The finding of a material/phenomenon which exists in nature but others do not know it.
Invention	The making of a product by applying scientific knowledge	 ··· Recognising the sentence structure of · ··· [Term]·· **is/are**·· [Explanation·] e.g. *Discovery* **is** the finding of a material / phenomenon which exists in nature but others do not know it.· ········· e.g. **Invention is** the making of a product by applying	**Assessment Objectives in Language:** **(For teaching strategies, refers to teaching program)** **Students are able to identify the subject and verb in a sentence and answer the question in complete sentence as follows:** **Examples:** **1.** **How many LCD TVs does the shop sell this month?** The shop sells 20 LCD TVs this month. **2.** **Who will be due east of**

An Example of a Marker's Report

- For Question 1(a), the performance was good, in the average, students got 3.3 out of 4 marks, and the average language mark was 0.8 out or 1 mark.

- Common mistakes included no comparison was made between the two set of data.

- Most students can use 'than' in answering questions that require comparison.

語言分上品

- 樣本一

**According to Source A, what is the difference of the population between the countryside and towns in the 19th century? (4 marks + 1marks) (Language mark: comparison)

According to Source A, There are more people lived in countryside than in Towns in 1841 and There are more people live in Towns than in countryside in 1881.

For the countryside, There are 54% in 1841 and 32% in 1881. And for the towns there are of people living 32% of people living in 841 and 68% of people lives living in.

So, the number number of people living in Towns in 1881 is partly increasing. And more than the people live in countryside. 所 In 1881.

4
4
1

- 樣本二

**According to Source A, what is the difference of the population between the countryside and towns in the 19th century? (4 marks + 1marks) (Language mark: comparison)

For for the population, According to Source A, the population of the countryside in 1841 is more than the population of the towns in 1841. The population of the countryside In1841 is 54% and the population of the towns in1841 is 46%, the population of the countryside in 1841 is more 8% than the population of towns in1841   population of

According to Source A, the Countryside in 1881 is 32% and the population of the Town   in 1881 is 68% The population of the towns is more 36% than the population of the countryside in 1881.

4
+
1

語言分下品 (未能使用'than'作答)

According to Soure A, have 54% peoples lived in countryside and 46% peoples lived in towns in 1841. But, in 1881, have 32% lived in countryside and 68% peoples lived in towns.

It seem that had 22% peoples left the countryside and lived in towns.

		資料題														卷一總分	保本				長問答				卷二總分	總分
		1a	LANG.	1b	1c	LANG.	1d	資料題題1總分	2a	LANG.	2b	2c	LANG.	2d	LANG.	資料題題2總分		選擇題	填充題	判斷題	保本總分	1	2	Ian	長問答總分		
	滿分	4	1	2	9	2	2	20	6	2	6	9	3	3	1	30	50	10	8	12	30	10	8	2	20	50	100
3A		2	1	2	7	2	1	15	2	2	0	4	2	0	1	11	26	8	5	8	21	5	2	2	9	30	56
3A		2	1	2	5	2	1	13	4	2	6	5	2	2	1	22	35	8	6	6	20	4	2	1	7	27	62
3A		2	0	1	7	1	0	11	2	1	2	4	1	3	0	13	24	8	5	6	19	4	4	2	10	29	53
3A		3	1	1	6	2	1	14	6	2	6	3	1	2	1	21	35	10	6	10	26	8	4	2	14	40	75
3A		4	1	2	4	2	2	15	6	1	0	7	2	2	0	18	33	9	7	6	22	5	6	2	13	35	68
3A		4	1	2	7	2	2	18	4	1	6	5	3	1	0	20	38	10	6	11	27	5	4	2	11	38	76
3A		4	1	0	5	1	2	13	6	2	6	6	1	2	0	23	36	10	5	10	25	3	4	2	9	34	70
3A		3	0	2	9	2	2	18	6	1	6	0	0	3	1	17	35	9	8	8	25	4	4	2	10	35	70
3A		4	1	1	9	0	1	16	2	1	6	3	0	1	0	13	29	4	4	4	12	5	3	1	9	21	50
3A		4	1	2	8	2	1	18	0	0	0	0	0	0	0	0	18	8	3	7	18	0	2	2	4	22	40
3A		4	1	1	9	0	2	17	0	1	3	2	0	2	0	8	25	8	5	8	21	5	4	2	11	32	57
3A		4	1	1	6	2	1	15	2	2	0	2	2	1	0	9	24	5	4	8	17	5	3	2	10	27	51
3A		3	0	2	9	2	2	18	4	2	0	5	3	2	0	16	34	10	8	12	30	9	6	2	17	47	81
3A		4	1	1	9	2	1	18	3	2	6	6	3	2	1	23	41	10	7	10	27	9	8	2	19	46	87
3A		4	1	1	4	1	1	12	4	2	4	3	3	2	1	19	31	9	5	4	18	5	1	2	8	26	57
3A		3	1	0	2	1	2	9	6	2	6	0	0	2	1	17	26	8	7	11	26	4	5	2	11	37	63
3A		3	0	1	5	1	1	11	2	1	0	2	0	0	0	5	16	8	3	6	17	1	1	1	3	20	36
3A		4	1	1	8	2	1	17	6	2	6	8	3	3	1	29	46	8	5	9	22	4	4	2	10	32	78
3A		4	1	2	9	1	2	19	6	1	6	9	3	2	0	27	46	9	7	10	26	6	6	2	14	40	86
3A		4	1	2	9	2	2	20	6	2	0	5	3	3	1	20	40	10	8	10	28	8	6	2	16	44	84
3A		2	1	2	4	2	0	11	3	1	3	0	0	2	1	10	21	8	7	8	23	4	2	2	8	31	52
3A		4	1	1	9	2	1	18	4	2	4	9	3	2	0	24	42	8	7	12	27	8	4	2	14	41	83
3A		4	1	2	4	2	1	14	0	2	4	3	1	1	0	11	25	6	5	1	12	2	0	1	3	15	40
3A		4	1	1	7	2	2	17	6	2	6	6	2	1	0	23	40	9	7	6	22	6	4	2	12	34	74
3A		4	1	1	9	2	2	19	6	1	6	6	1	3	0	23	42	8	7	12	27	7	4	2	13	40	82
3A		2	1	1	9	2	1	16	0	1	0	3	1	0	1	6	22	8	6	6	20	4	5	2	11	31	53
3A		2	1	2	5	2	1	13	6	2	0	3	3	3	1	18	31	10	5	11	26	5	8	2	15	41	72
3A		1	1	1	9	2	1	15	3	2	3	4	2	1	1	16	31	9	4	7	20	4	1	2	7	27	58
3A		4	1	1	6	1	2	15	4	2	6	3	2	3	1	21	36	9	7	12	28	4	5	2	11	39	75
3A		2	0	1	9	2	2	16	5	1	4	9	3	1	1	24	40	10	4	12	26	8	8	2	18	44	84
3A		4	1	1	7	1	2	16	4	1	4	0	0	0	0	9	25	9	3	7	19	10	4	2	16	35	60
3A		2	1	1	6	1	0	11	6	1	0	6	3	0	1	17	28	8	7	12	27	10	8	2	20	47	75
3A		3	0	2	9	2	2	18	6	2	6	7	2	2	1	26	44	10	8	11	29	10	5	2	17	46	90
3A		3	1	1	4	1	2	12	0	1	0	2	0	1	0	4	16	8	6	6	20	8	5	1	14	34	50
3A		4	1	2	8	1	2	18	0	2	6	4	3	1	1	17	35	8	5	9	22	4	1	1	6	28	63
3A		3	1	1	7	2	0	14	0	2	4	4	1	2	1	14	28	7	5	7	19	4	4	2	10	29	57
		3.3	0.8	1.3	6.9	1.6	1.4	15.3	3.6	1.5	3.5	4.1	1.6	1.6	0.5	16.5	31.8	8.4	5.8	8.4	22.6	5.5	4.1	1.8	11.4	34.0	65.8

- 語言分上品 (3分)：示例中考生使用了 'for' 分段分類，使用了 'rainfall'及 'crops'兩個分析字眼，亦使用了'according to source A' 引用資料內容，得3分語言分。

1e) According to Source A and the answer of 1d), if you are a farmer, which part of China would you like to live in, the Midwestern part or Eastern part of China?(6marks + 3marks) (Language marks: clue + aspect + criterion)

I would like to live in ~~china~~ Eastern part of china
For place, according to source A, ~~there~~ are three plains, the temperature is warm, so we can live comfortable, it is good to live.
For rainfall, according to the answer of 1d, ~~there~~ is a lot of rainfall, so ~~are~~ there ~~is~~ enough for drinking, it is good to live.
For crops, according to the answer of 1d, ~~there~~ is a lot of crops, so it is enough for eating, it is good to live.

- 語言分下品 (2分)：示例中考生使用了'for' 分段分類，使用了 'terrain' 作為分析字眼，但沒有使用'according to source A' 引用資料內容，得2 分語言分。

1e) According to Source A and the answer of 1d), if you are a farmer, which part of China would you like to live in, the Midwestern part or Eastern part of China?(6marks + 3marks) (Language marks: clue + aspect + criterion)

If I am a farmer, I would like to live in the Eastern part of China. For terrain, it is surrounded by plain and sea. Farmers can grow many vegetables and fruits. So, it has enough food to eat. Therefore, it is good to live.

3

+ 2

		保本				World Map							Map Reading										資料題總分							總分
		選擇題	填充題	配對題	保本總分	1a	1b	1c	1d	1e	lang.	World Map	2a	2b	2c	2d	2e	2f	2g	2h	2i	地理技能題總分	3a	lang.	3b	3c	3d	3e	資料題總分	
	滿分	10	10	10	30	6	4	1	5	6	3	25	3	6	1	1	2	1	3	3	5	25	3	3	4	6	3	1	20	100
C		10	2	10	22	4	3	0	4.5	2	2	15.5	3	5	1	1	2	0	1	0	4.5	17.5	0	2	3	6	3	0	14	69
C		2	5	4	11	5	2	0	4.5	0	1	12.5	3	6	0	0	0	0	2	2	5	18	0	2	0	0	0	0	2	43.5
C		5	5	8	18	4	0	0	3.5	0	3	10.5	0	5	0	1	0	0	0	0	4	10	0	1	0	4	1	0	6	44.5
C		5	6	6	17	6	2	0	3.5	0	3	14.5	2	6	1	1	0	1	3	3	5	22	1	3	0	0	0	0	4	57.5
C		9	7	7	23	2	0	0	5	2	1	9	0	6	0	0	0	1	3	0	4	14	3	3	2	6	0	0	14	60
C		9	6	8	23	2	3	0	5	1	2	13	2	5	1	1	0	1	2	0	3	15	3	3	3	2	0	3	11	62
C		9	9	8	26	6	1	1	4.5	6	3	21.5	3	6	1	1	2	1	3	3	5	25	2	2	2	4	1	0	12	84.5
C		10	7	10	27	6	3	1	5	0	3	18	3	6	1	1	2	1	3	0	5	22	3	3	3	6	3	1	19	86
C		7	5	5	17	5	4	0	5	0	1	16	3	4	1	0	1	0	1	3	1	14	0	2	2	0	2	0	6	53
C		10	4	7	21	6	4	1	0	2	3	20	3	5	1	1	0	1	3	3	4	23	3	3	1	5	3	1	16	80
C		5	3	5	13	6	1	0	3	2	2	14	2	4	1	1	0	0	0	0	4	15	2	2	2	0	2	0	8	50
C		8	5	7	20	5	2	0	4.5	6	2	19.5	2	6	1	0	1	0	1	3	0	16	2	2	0	3	2	1	10	65.5
C		3	3	5	11	0	1	0	4.5	2	2	9.5	2	5	1	0	0	1	1	2	0	16	2	3	0	0	2	0	7	43.5
C		abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs	abs
C		7	3	5	15	4	1	0	4.5	2	3	14.5	2	4	0	0	0	1	3	3	4.5	17.5	2	1	2	5	2	0	12	59
C		7	4	10	21	5	3	0	5	6	2	21	0	5	1	1	2	1	3	0	3.5	16.5	1	3	3	5	3	1	16	74.5
C		7	4	5	16	0	2	0	5	2	2	11	2	6	0	0	0	0	0	0	1	9	0	3	0	2	0	3	8	44
C		7	8	4	19	4	0	0	4.5	1	0	9.5	3	3	1	1	2	1	3	0	4.5	18.5	1	3	3	0	2	0	9	56
C		10	5	9	24	0	4	1	4.5	3	2	14.5	1.5	6	1	1	2	1	3	0	4	19.5	2	3	0	6	3	1	15	73
C		4	4	5	13	3	1	0	4.5	1	1	10.5	0	4	0	0	0	0	0	0	4	8	3	3	0	5	0	0	11	42.5
C		9	5	5	19	4	1	0	4.5	1	1	11.5	3	6	0	0	1	0	3	3	4	20	3	3	0	6	2	1	15	65.5
C		5	8	10	23	5	2	1	3.5	2	3	16.5	2	5	1	1	2	0	0	0	5	16	1	3	0	0	0	0	4	59.5
C		6	0	6	12	6	3	0	2.5	0	1	12.5	1	2	1	1	2	0	1	2	1.5	15.5	2	2	1	1	2	0	8	48
C		5	4	9	18	5	1	0	4	4	2	16	0	0	0	0	2	0	0	0	1	10	3	3	3	6	1	0	16	60
C		7	2	7	16	6	2	0	5	3	1	17	2	5	0	1	0	1	0	0	3	12	0	0	2	5	0	0	7	52
C		7	5	9	21	3	1	0	5	1	1	11	3	5	0	1	2	0	0	0	0	11	0	0	1	1	0	0	2	45
C		10	8	10	28	6	3	1	5	6	3	24	2	5	1	1	2	1	3	3	5	23	2	3	0	6	0	0	11	86
C		6	2	6	14	2	1	0	4	1	1	9	3	5	1	1	0	0	1	3	5	19	3	3	2	0	0	0	8	63
C		5	4	4	13	0	2	0	2.5	0	3	7.5	3	5	1	1	2	1	3	0	3	19	0	0	0	0	2	0	2	41.5
C		8	3	5	16	3	4	0	5	6	2	20	3	6	0	1	2	1	3	0	4.5	20.5	0	0	3	6	1	0	10	66.5
C		6	6	8	20	3	3	1	5	2	1	15	2	3	1	1	0	1	3	0	5	16	2	2	2	5	0	0	12	63
C		7	2	10	19	5	0	0	4	2	1	12	2	6	0	1	2	1	3	0	4	19	3	3	3	0	2	0	11	61
C		8	1	10	19	3	1	0	5	2	1	12	2	6	0	1	0	0	0	0	4.5	13.5	3	3	1	5	0	0	12	56.5
	平均分	7.0	4.5	7.1	18.6	3.9	1.9	0.2	4.3	2.2	1.8	14.3	2.1	5.1	0.6	0.7	0.9	0.7	2.1	0.7	3.8	16.6	1.7	2.3	1.4	3.0	1.4	0.2	9.9	59.2

F1. IS Test

- *3.   Write down the energy involved in the things or processes in the photos in complete sentences.

  (4+2* marks)

- (a)   A cable car going uphill **gains** (0.5) potential energy. (1) (Accept other reasonable answers.)
- (b)   A man playing a piano **gives out** (0.5) sound energy. (1) (Accept other reasonable answers.)
- (c)   A running deer **possesses**(0.5) kinetic energy. (1) (Accept other reasonable answers.)
- (d)   Bananas **store**(0.5) chemical energy.. (1) (Accept other reasonable answers.)
- **(Language mark: use proper vocabulary)**
-
-

- 6.   *(d)   State ONE thing that we should do and ONE thing we should not do when there
-                     is a gas leak.   (Giving suggestions)   (2+1* marks)
- Ans: We should cut off the gas supply. (1)
-                     We should not light a flame. (1) (Accept other reasonable answers.)
-                     **(Language mark: Giving suggestions   ……should ……   1 mark)**

Results Analysis

Question	Report		
*3	Total: 2	Average: 0.42	Sum: 14
	Many student cannot use proper verbs to describe the form of energy.		
4*(b)	Total: 1	Average: 0.52	Sum: 17
	Half student are able to use proper language pattern in their answers.		
6*(d)	Total: 1	Average: 0.85	Sum: 28
	Most students are able to use proper language pattern in their answers. Good performance.		

•Most sentence patterns student learnt can be used in their answer, e.g. **compare & contrast; give reason; giving suggestions.**

Using the appropriate verbs based on science concept

- **4.1**
- *Associate the type of energy with the appropriate VERB based on scientific concept:
- (1) For KE, PE and chemical energy --- possessed by, stored in, gain, or simply 'of'
- (2) For sound, heat and light energy ---- given out by, emitted by, absorbed, or from
-
- **1. Write sentence structure**:
- e.g. Lamps **give out** light energy.
- e.g. Heaters **give out** heat energy.
- e.g. Hitting drum **gives out** sound energy.
- e.g. A moving car **possesses** kinetic energy.
- e.g. A compressed spring **stores** potential energy.
- e.g. A rising up object **gains** potential energy.
- e.g. Food **store** chemical energy.
-

F.1 Mathematics Language Marks Analysis

Full Marks	2	2		
Average	0.9	0.6		
S.D.	0.9	0.7		
No. of Pass	33.0	25.0		
No. of Failure	24.0	32.0		
No. of Absentee	0.0	0.0		
No. of Student	57.0	57.0		
Pass %	57.9	43.9		
Highest Mark	2.0	2.0		
Lowest Mark	0.0	0.0		

Section B: (5 Questions, 34 marks)

1. (a) Fill the following table.

(correct to the nearest integer)	4.43	3.98	0.97	2.17	1.83
Round down	4	3	0	2	1
Round off	5	4	1	2	2
Round up	5	4	1	3	2

*(b) A compact flash card can hold files of total size 16 MB. Paul wants to save several pictures of the following sizes: 4.43 MB, 3.98 MB, 0.97 MB, 2.17 MB, 1.83 MB. Determine whether Paul can save them all in a 16 MB compact flash card? Explain your answer.

(8 marks)

$4.43 + 3.98 + 0.97 + 2.17 + 1.83$

$\approx 5 + 4 + 1 + 3 + 2$

$= 15\ MB < 16\ 16 > 15$

$\therefore$ Paul can save them all in a 16MB compact flash card.

Section B: (5 Questions, 34 marks)

1.   (a) Fill the following table.

(correct to the nearest integer)	4.43	3.98	0.97	2.17	1.83
Round down	4	3	0	2	1
Round off	4	4	1	2	2
Round up	5	4	1	3	2

*(b) A compact flash card can hold files of total size 16 MB. Paul wants to save several pictures of the following sizes: 4.43 MB, 3.98 MB, 0.97 MB, 2.17 MB, 1.83 MB. Determine whether Paul can save them all in a 16 MB compact flash card? Explain your answer.

(8 marks)

∴ Yes, because 4.43 MB, 3.98 MB, 0.97 MB, 2.17 MB, 1.83 MB can use round up to know it ≈ 4.43 + 3.98 + 0.97 + 2.17 + 1.83 ≈ 5+4+1+3+2 = 15MB < 16MB

F.3 Integrated Business Examination Analysis

Mean	6.0	31.5	1.7	33.2	39.2	46.1
Highest	9.0	57.0	4.0	59.5	67.5	79.4
Lowest	3.0	16.0	0.0	16.5	24.5	28.8
Passing rate:	86%	33.30%	22.20%	33.30%	36%	36%
Language mark:						
	0-1%	12Ss	33%			
	1.5-3.5%	21Ss	59%			
	4-5%	3Ss	8%			

After tests and Examinations

Teachers meet
- to share how language marks are awarded to students.
- to share their view on the performance of students in tests and examinations.
- to discuss the common errors made by students.
- to share ways to improve students' performance.

Future development

- Better coordination among subject teachers to set the learning and assessment objectives, teaching strategies, etc.
- Streamline and refine the process of assessment data collection to give feedback on teaching (AfL)
- Refine the questions in the online comprehension questions so as to have a balanced emphasis on both content and language.

Thank you