Professional Development Programme

Reading across the Curriculum under the fine-tuned MOI arrangements

Session 1

Facilitators: Cheri Chan and Tanya Kempston

January 2012:

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RAC workshop agenda

- Session 1: 9.30-10.30
- Morning break: 10.30-10.40
- Session 2: 10.40-12.30
- Lunch
- Sessions 3 & 4: 1.30-4.30pm
Overview of the Programme

Part 1: Language Awareness

Session 1

Session 2

Session 4

Part 2: Pedagogies and Strategies

Session 3
Overview of the Programme: Session 1

Part 1: Language Awareness

Session 1
1. Overview of the Programme
2. Reading across the curriculum: accessing prior knowledge
3. Reading for everyday life and reading for school subjects
4. Introduction to genres and discipline-specific text types

Part 2: Pedagogies and Strategies

Session 4
The Programme: Session 2

Part 1: Language Awareness

Part 2: Pedagogies and Strategies

Session 2
1. The rhetorical functions of academic texts
2. Understanding vocabulary

Session 1

Session 4

8/22/2012

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What is *Reading Across the Curriculum*?

- From **learning to read** to **reading to learn**
- Enhancing both **academic language awareness** and **academic content awareness**

**Building bridges for students to read texts in English in the content areas**
Under the fine-tuned MOI arrangements

The School Context

Fine-tuned MOI arrangements

Reading skills and strategies

Reading Across the Curriculum

Different academic subjects

You?

Your students?
Session 1: Objectives

1. To increase awareness of the language demands involved in reading texts in content subjects.
INTRODUCTION: THE READING PROCESS
Reading across the Curriculum: key issues

- Students read and comprehend better then they use reading strategies
- The use of reading strategies makes the reading process more engaging and fun for students
How to teach reading?

- **Content area reading** goals (when students **read for information**): we want students to be able to:
  - Understand why they are reading the text
  - Predict outcomes in a text prior to reading
  - Think/ask questions about the text while-reading (interactive reading)
  - Identify important words/ideas/information/concepts in a text while-reading
  - Summarise what they have read in their own words
Reading a Text

- E.g. Predict outcomes in a text prior to reading
- What word chains do you expect to find in a text titled “Different forms of energy” from a science textbook?
- Create 3 questions you might be able to answer after reading the text.
TASK 1: WARM UP
TEACHING STUDENTS TO READ ACADEMIC TEXTS
Preliminary Task:

- Read the provided non-fiction academic text (a school history text).
- Discuss in your groups how you would deal with this text in a reading lesson with a class of S3 students.
- Agree on two key teaching strategies to use at the pre-reading, while-reading, and post-reading phases.
- Be ready to share your best practice ideas with the whole group.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Strategies</th>
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<tbody>
<tr>
<td>Pre-reading</td>
<td>2 strategies</td>
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<tr>
<td>While-reading</td>
<td>2 strategies</td>
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<tr>
<td>Post-reading</td>
<td>2 strategies</td>
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SOME SUGGESTIONS
Pre-reading

- Predict content from a picture, a diagram, or other visuals.
- Predict from the title, or from key words, or from the first sentence.
- Recount a personal story related to the text.
- Create a semantic web – what words do we already know that are associated with this topic?
- Co-create reader questions: K-W-L.
- Create a graphic outline of the content.

“Time spent on before-reading activities is time well spent” (Gibbons, 2009, p. 92.)

“Traditionally, before-reading activities consisted mainly of pre-teaching vocabulary in isolation from the context in which it was used” (Gibbons, 2009, p. 92).

Pre-teaching vocabulary is, however, a useful part of pre-reading, and we will look at this in the next session.
Possible pre-reading tasks

(1) KWL Chart

<table>
<thead>
<tr>
<th>Topic:</th>
</tr>
</thead>
</table>

(2) Teaching key vocabulary & raising awareness/concepts

- A picture of Renaissance arts
- A picture of Jesus on stained glass
- A picture of silk road
- A map of trade in middle ages

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While-reading

- Scan for specific information.
- Skim for gist.
- Visualise the text.
- Pause and predict.
- Scaffold a detailed reading of the entire text (afternoon session – the reading cycle).
- Identify paragraph parts (with a highlighter): topic sentence; supporting sentences; concluding sentence.

- Effective readers constantly interrogate the text, whether consciously or unconsciously. Struggling readers need help from the teacher to do this. Teachers provide scaffolds for learners to help them interrogate the text.
Possible while-reading tasks

- Note taking with students
- Constructing a graphic organizer with students
- Talking about the text:
  - E.g. What is the topic sentence? Are there any linking words in the passage?
Example: A mindmap to understand a short history text on the Age of Exploration

- Renaissance
  - ideas inspired
  - fostered

- Age of Exploration
  - Better technology & navigation tools
  - equipped
  - urged

- Seeking new trading partners
  - urged

- Spreading Christianity
  - hoped
  - resulted in

- Conquering colonies
Post-reading

- Create graphic organisers (*afternoon session*).
- Summarise the text.
- Text reconstruction (cut-up sentences).
- Cloze activities – especially useful for *connectives* (using cloze for teaching, not testing).

- “to focus learners’ attention more deeply on the information they’ve read in the text.”
- “to use the language of the text for learning about language.”
- “to allow for a creative or critical response to the text.”
  
  (Gibbons, 2009, p. 100).
Possible post-reading activities

- Students giving an oral summary of the passage
Post-reading Language Analysis: Connectives

The **Age of Exploration** refers to the period of exploration during the 15th and 16th centuries, a period of new voyages and **also** a new world. The Age of Exploration began during the Renaissance **because** the ideas at that time inspired in the Europeans a keen interest in the world. It **also** provided technical and navigational tools with which Europeans could explore. They could build ships for longer voyages, make better and more accurate maps, and learn the use of compasses and astrolabes.

**Apart from this**, there was a huge demand for Asian products like spices and silk in medieval Europe. **Originally**, these products were transported into Europe through land trade routes connecting Europe and Asia. **However**, by the 14th century, the **Ottoman Turks had grown so powerful** in the western part of Asia that they were blocking these trade routes. It had become necessary for the Europeans, who wished to keep their trade interests, to search for another route to the East.
READING FOR EVERYDAY LIFE AND READING FOR SCHOOL SUBJECTS
# What do our students read?

<table>
<thead>
<tr>
<th>Time</th>
<th>Reading engaged in</th>
<th>“Reading for everyday life”? “Reading for school subjects”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before lessons</td>
<td>1. Some pages from a comic (Japanese manga) with his friend</td>
<td>Reading for everyday life</td>
</tr>
<tr>
<td>began</td>
<td>2. Some pictures showing beautiful clay sculpture by famous artists on the projector screen</td>
<td>Reading for school subjects</td>
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<td></td>
<td>3. Instructions &amp; notes on how to make a clay sculpture on the screen</td>
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<tr>
<td>Visual Arts</td>
<td></td>
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<tr>
<td>lessons</td>
<td></td>
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<tr>
<td>1st recess</td>
<td>4. Some more pages from a comic (Japanese manga) with his friend</td>
<td>Reading for everyday life</td>
</tr>
<tr>
<td></td>
<td>5. Text on the screen and in the textbook</td>
<td>Reading for school subjects</td>
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<tr>
<td></td>
<td>6. A list of “feeling” verbs and adjectives on the screen</td>
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<td></td>
<td>7. Read aloud from his sentences to class</td>
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<td></td>
<td></td>
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<tr>
<td>Integrated</td>
<td>8. A class notice about a school trip which he had to take home to parents</td>
<td>Reading for school subjects</td>
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<tr>
<td>Science lessons</td>
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<td>2nd recess</td>
<td></td>
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<td></td>
<td>9. Science investigation instructions from the screen</td>
<td>Reading for school subjects</td>
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<td></td>
<td>10. The same instructions from his textbook as he carried out the investigation</td>
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<tr>
<td></td>
<td>11. Teacher’s account of the investigation on whiteboard</td>
<td></td>
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<tr>
<td>Integrated</td>
<td>12. Read aloud some of his results for teacher to write</td>
<td></td>
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<tr>
<td>humanities</td>
<td>13. Some explanations on the screen</td>
<td></td>
</tr>
<tr>
<td>lesson</td>
<td>14. A passage on Hong Kong: Its history and its geography</td>
<td>Reading for school subjects</td>
</tr>
<tr>
<td></td>
<td>17. His teacher’s answers</td>
<td></td>
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<tr>
<td></td>
<td>18. Maths problem from his workbook</td>
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What do our students read?

Before lessons begin

Visual Arts

1st recess

English

2nd recess

Science

Humanities

Lunch break

Mathematics

Reading for everyday life and reading for school subjects

- Everyday language is different from academic language
  - Everyday texts are different from academic texts

- Features of everyday text-types
  - Recount (storytelling) mode: linear, chronological

- Features of academic text-types
  - Both non-linear & linear modes of thinking
    - Academic language allows us to describe complex ideas and abstract concepts as clearly as possible.
Modifications in academic texts

- Organisation markers, such as headings, sub-headings, and linking devices.
- Clear topic statements.
- Highlighting and glossing of key terms.
- Synonyms and paraphrasing.
- Bulleted or numbered lists of main points.
- Visual aids, such as illustrations and graphs.
- Explicit summation at regular interviews.
- Questions for comprehension checking.

(Adapted from Second Language Acquisition, Saville-Troike, p. 108)
What is genre?

“All the language events, both spoken and written, that we participate in as members of our particular society and culture”

• Each genre has a specific social purpose, and is used to get something done through language.

• Each genre has a particular structure or overall organization.

• Each genre has language features that are typical of that genre.

• Understanding of the purpose, organisation, and language features of school genres helps teachers recognise where learners need support in learning the genres they need to be successful academic readers and writers.

(adapted from Derewianka, B. (1990). Exploring how texts work. Australia: Primary English Teaching Association.)
TASK 2: HELP STUDENTS IDENTIFY TEXT TYPES & FUNCTIONS
School Texts: Purpose and Text Type

Think, Pair, Share

- Discuss with your partner what you think is the purpose of the text.
- What does each text seek to do? To entertain the reader? To persuade the reader? To explain something?
- What type of text is it?
  1. A narrative
  2. An information report
  3. An explanation
  4. A discussion
  5. A procedure
  6. A recount
  7. An exposition

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Task : Identifying text types

Text A

Shop owners are losing a lot of money because of shoplifting. Should first offenders be let off lightly?

On the one hand, it is not fair to punish people the first time they make a mistake. The police should talk sternly to the m and give them a warning. On the other hand, every day shops lose thousands of dollar worth of valuable items. This affects us all because prices increase and we have to pay extra. So shop owners should come down heavy the first time to set an example. In our opinion, first offenders should be taught a lesson but the punishment might depend on questions such as how old they are, why they stole the goods, and so on.
Task: Identifying text types

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In our opinion, first offenders should be taught a lesson but the punishment might depend on other factors such as how old they are, why they stole the goods, and so on.

Text-type: Discussion

Purpose:
To look at more than one side of an issue; to explore various perspectives towards an informed decision

(Adapted from Derewianka, B. (1990). Exploring how texts work, p. 71. Australia: Primary English Teaching Association.)
Task: Identifying text types

Text B

Voyages of Discovery

*What was the relationship between the Renaissance and Western expansion?*

The *Age of Exploration* refers to the period of exploration during the 15th and 16th centuries, a period of new voyages and also a new world. The Age of Exploration began during the Renaissance because the ideas at that time inspired in the Europeans a keen interest in the world. It also provided technical and navigational tools with which Europeans could explore. They could build ships for longer voyages, make better and more accurate maps, and learn the use of compasses and astrolabes.

Apart from this, there was a huge demand for Asian products like spices and silk in medieval Europe. Originally, these products were transported into Europe through land trade routes connecting Europe and Asia. However, by the 14th century, the *Ottoman Turks had grown so powerful* in the western part of Asia that they were blocking these trade routes. It had become necessary for the Europeans, who wished to keep their trade interests, to search for another route to the East.

The Europeans also wished to search for profitable new *trading partners*. They thought that they could buy spices and other goods more cheaply if they traded directly with the East. As a result, they sought to conquer and control their lands, and hoped to spread Christianity to different corners of the world.
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**Text-type:** Exposition

**Purpose:** To argue a case; gives a series of supporting arguments
Task: Identifying text types

Text C

Sedimentary rock is formed by the compression of layers of particles into a solid form. Sediments such as sand and mud settle onto the floors of oceans and lakes. Over a long period time, several layers of sediments collect on the floor. These layers are pressed together for many thousands of years, fusing the small solid particles of mud and sand to form solid rock. This type of rock is called sedimentary rock.
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**Text C**

**Text-type:** Explanation

**Purpose:**
To give an account of how something works, or the reasons for some phenomenon.
Barn Owls

Introduction
The Barn Owl is a bird of prey. It is an endangered species. It lives in
barns and trees. They are nocturnal.

Description
Its face is like a plate which is used as a satellite dish.
The sound bounces off.

The colour
It has brown speckles and a white face.
It has white under the wings and a white belly.
There are furry-speckled feathers on its back.

Habitat
The Barn Owl lives in barns and chimneys.
The Barn Owl does not make nests.

Food
It is a carnivore and it eats mice, rats, wild gerbils and baby
rabbits.

Movement/Speed
The Barn Owls fly fast and silent and glides and it flies low, so
that their prey can’t hear it coming.

Conclusion
The Owl is endangered because people are moving to barns and also
because mice eat chemicals and the owls eat the mice and they die.


Task: Identifying text types
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Conclusion

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Task : Identifying text types

Text-type: Information report

Purpose: To present generalised information about something

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Task: Identifying text types

Text E

One day a monster came out of my hot water pipe.

I was very frightened. I called my mum and she came and saw the Follgleboogy and ran outside.

I wanted to make friends with it and give it a name so I called it a Floogleboogy and that night it came to bed with me.

And I found that a Floogleboogy snores very loud indeed and mum was too frightened to come and kiss me goodnight.

One day a monster came out of my hot water pipe. I was very frightened. I called my mum and she came and saw the Floogleboogy and ran outside.

I wanted to make friends with it and give it a name so I called it a Floogleboogy and that night it came to bed with me.

And I found that a Floogleboogy snores very loud indeed and mum was too frightened to come and kiss me goodnight.

Text-type: Narrative

Purpose: To construct a pattern of events with a problematic and/or unexpected outcome that entertains and instructs the reader or listener.
Task: Identifying text types

Text F

Here’s some advice for kids who are just learning to surf.
Use a light, small, fibreglass board with a leg-rope. Wear a wetsuit if it’s cold.
Find a safe, uncrowded spot on the beach. The water should be not too choppy so
that will get a clean ride.
Don’t go out too far if you haven’t surfed before.
Wait until you see a small wave then lie on your surf board. When the wave is close,
start paddling furiously.
If you are more experienced, you could try kneeling on the board once you are on the
wave.
The important thing is to keep your balance or else you will end up falling off the
board!

centre for English Language Teaching and Research.)
Here’s some advice for kids who are just learning to surf:

- Use a light, small, fibreglass board with a leg-rope.
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- Don’t go out too far if you haven’t surfed before. Wait until you see a small wave then lie on your surf board. When the wave is close, start paddling furiously.
- If you are more experienced, you could try kneeling on the board once you are on the wave.
- The important thing is to keep your balance or else you will end up falling off the board!

Text-type: Procedure

Purpose: To tell how to do something
Task: Identifying text types

Text G

On Thursday 2\textsuperscript{nd} February we went on an excursion to observe plants.

First we went to Port Kembla Beach. There were not many plants because of the salt and the sand. Then we got back on the bus.

Next we went to the steelworks. We sat on a hill and observed the plants. We saw bushes and grass. Not many plants because of the pollution.

We got back on the bus and went to Mt Keira rainforest. We got off the bus and ate our little lunch in the clearing area. We saw many different types of plants and trees. We saw wattle trees, tall trees and tock plants.

After that we go back on the bus and went back to school. We arrived at school at 12 o’clock. Then we went into school and talked about our excursion.

We had great fun!
Task: Identifying text types

Text G

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Text-type: Recount

Purpose: To tell what happened, to document a sequence of events, and perhaps evaluate their significance in some way.
INPUT: HELP STUDENTS UNDERSTAND TEXT STRUCTURE
Text structure

The meanings of a text are configured to give the text a unifying ‘architecture’ or shape through which the text achieves its purpose.

Texts of the same genre that is, texts constructed to achieve the same general social purpose, tend to share comparable structural patterns.

Some elements of these patterns may be obligatory if the text is to achieve its purpose successfully. Other structural elements are optional extras which can be used to fine tune the text in different ways.

(Butt et al., 2000, pp. 213-214)
There’s this girl in my class... she tried to do a backward roll and she um like her neck clocked or something and um she was taken to hospital in an ambulance and I had to write down what happened because I was in her group I’ve done that before and it doesn’t hurt that much. I think she’s over-reacting just a bit.
One day a monster came out of my hot water pipe.

I was very frightened. I called my mum and she came and saw the Floogleboogy and ran outside.

I wanted to make friends with it and give it a name so I called it a Floogleboogy and that night it came to bed with me.

And I found that a Floogleboogy snores very loud indeed and mum was too frightened to come and kiss me goodnight.
CITY BATTERED BY GIANT HAILSTONES

Hailstones the size of tennis balls smashed roofs, battered cars and injured people across Sydney in a freak storm last night.

Thirty motorists were stranded in the Royal National Park at Sutherland and cars taking shelter in the Sydney airport tunnel caused major traffic problems. Some 30 sets of traffic lights were out after the hailstorm hit at 8pm.

Ms Bradfield’s partner, a doctor, was busy treating the injured.

Lead [with headline]

Lead development (optional)

Wrap-up (optional)
How to catch a wave
Here’s some advice for kids who are just learning to surf.

Use a light, small, fiberglass board with a legrope and a wetsuit if it’s cold.

Find a safe, uncrowned spot on the beach. The water should be not too choppy so that you will get a clean ride. Don’t go out too far if you haven’t surfed before. Wait until you see a small wave then lie on your surf board. When the wave is close, start padding furiously. If you are more experienced, you could try kneeling on the board once you are on the waves. The most important thing is to keep your balance or else you will end up falling off the board!
Pelicans

Pelicans are part of the Bird family.

Pelicans have a big bill with a pouch. Most Pelicans have white body feathers. All Pelicans have short legs. Most Pelicans have webbed feet. Most Pelicans live around the coast. Pelicans eat crustaceans, crabs and shrimps. Pelicans fly with their head back. Pelicans lay two, three or four white eggs. They take thirty-five days to hatch.
How hail is formed
Hail is rain or snow which has frozen into round pellets.

Sometimes in storms strong air currents force raindrops upwards into clouds of freezing water. When the raindrops begin to freeze into round pellets they become heavier and start to fall. As they fall back into the air currents, they are forced upwards again into the freezing clouds. This coats the pellets in another layer of ice. The pellets continue to bounce up into the freezing cloud to be coated in more layers of ice and down into the air current, until they become too heavy for the air current. They then fall to earth as hailstones.
Cars should be banned in the city
Cars should be banned in the city. As we all know, cars create pollution, and cause a lot of road deaths and other accidents.

First of all, cars, as we all know, contribute to most of the pollution in the world.

Cars emit a deadly gas that causes illnesses such as bronchitis, lung cancer, and “triggers” off asthma. Some of these illnesses are so bad that people can die from them.

Second, the city is very busy. Pedestrians wander everywhere and cars commonly hit pedestrians in the city, which causes them to die. Cars today are out roads biggest killers.

And third, cars are very nosy. If you live in the city, you may find it hard to sleep at night, or concentrate on your homework, and especially talk to someone.

In conclusion, cars should be banned from the city for the reasons listed.
Discussion

Homework
I think we should have homework because it helps us to learn and revise our work.

Homework helps people who aren’t very smart to remember what they have learned. Homework is really good because it helps with our education.

I think we shouldn’t have homework because I like to go out after school to a restaurant or the movies. Sometimes homework is boring and not important. I think homework is bad because I like to play and discuss things with my family.

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Genres in different non-language subjects:
Linking the English classrooms with other content-subjects

- Example 1: Hunger
- Example 2: Advertisements
- Example 3: Forms of energy
- Example 4: Age of discovery

Task 3
- We will look at the 4 text types and think about how we can link the English classroom with other content-subjects
HUNGER (p. S10)
With today’s high technology in food production, it is a surprise to many people that ending hunger is still one of the major tasks for the United Nations and many other non-government organisations. The word ‘hunger’, when used in our daily lives, simply refers to our desire for food; however, to 854 million people (Food and Agriculture Organisation (FAO) of the United Nations, 2006), hunger is something that could lead to death.

Hunger is not an isolated problem. It is often the consequence of a combination of many other issues in our society.

The root of hunger is not that we do not have enough food in today’s world, but that we do not distribute it evenly enough. According to the FAO (2000), while the richest 20% of the world population consume as much as half of the meat and seafood in the world, the poorest 20% consume only 5% of such protein-rich food. In other words, hunger arises from uneven food distribution among different income groups.

Tragedies like natural disasters and wars are also common reasons that bring about hunger on a large scale. Floods, droughts and typhoons are natural disasters that often lead to a large reduction in food production. When a country is in war for a long period, farmland is also often destroyed, consequently resulting in hunger.

Environmental pollution is another important contributing factor to the decrease in food production and hence hunger. If industrial development is not well controlled, the waste created can pollute farmland and rivers. In some cases, this brings about soil erosion and desertification. A likely effect of the loss of farmland is that prices of food are driven so high that most people are unable to get enough food.

What are the effects of hunger that lasts a long period of time?

Food provides our body with nutrients, which are necessary for growth and health. A lack of nutrients, which is sometimes known as malnutrition, naturally results in illnesses and sometimes even death. ‘Feeding Minds, Fighting Hunger’ (2006) points out that ‘malnutrition in the form of deficiencies of essential vitamins and minerals continues to cause severe illness or death in millions of people worldwide.’

Children’s mental development can also be severely affected. The intelligence of hungry children is generally lower. These children’s ability to learn is limited, and as a result, schools’ drop-out rates are high in countries with serious hunger problems. This often leads to high illiteracy rates, making it even more difficult for these countries to develop. It is obvious that when people do not have enough food, they lack the energy to take part in economic activities. When people get sick because of malnutrition, they are unable to work. In short, a lack of food contributes to lower productivity, and economic loss is an unavoidable result. As seen from the above, hunger is seriously damaging to the affected people and countries. As individuals, we can of course reduce food wastage by ordering only what we can eat. But more importantly, increased international efforts in providing financial aid and technological assistance are needed to put an end to hunger.

HUNGER (p. S10)
With today's high technology in food production, it is a surprise to many people that ending hunger is still one of the major tasks for the United Nations and many other non-government organisations. The word 'hunger', when used in our daily lives, simply refers to our desire for food; however, to 854 million people (Food and Agriculture Organisation (FAO) of the United Nations, 2006), hunger is something that could lead to death.

Hunger is not an isolated problem. It is often the consequence of a combination of many other issues in our society.

The root of hunger is not that we do not have enough food in today's world, but that we do not distribute it evenly enough. According to the FAO (2000), while the richest 20% of the world population consume as much as half of the meat and seafood in the world, the poorest 20% consume only 5% of such protein-rich food. In other words, hunger arises from uneven food distribution among different income groups.

Tragedies like natural disasters and wars are also common reasons that bring about hunger on a large scale. Floods, droughts and typhoons are natural disasters that often lead to a large reduction in food production. When a country is in war for a long period, farmland is also often destroyed, consequently resulting in hunger.

Environmental pollution is another important contributing factor to the decrease in food production and hence hunger. If industrial development is not well controlled, the waste created can pollute farmland and rivers. In some cases, this brings about soil erosion and desertification. A likely effect of the loss of farmland is that prices of food are driven so high that most people are unable to get enough food.

What are the effects of hunger that lasts a long period of time?

Food provides our body with nutrients, which are necessary for growth and health. A lack of nutrients, which is sometimes known as malnutrition, naturally results in illnesses and sometimes even death. 'Feeding Minds, Fighting Hunger' (2006) points out that ‘malnutrition in the form of deficiencies of essential vitamins and minerals continues to cause severe illness or death in millions of people worldwide.’

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Some possible graphic organizers

<table>
<thead>
<tr>
<th>Causes of Hunger</th>
<th>Impact of Hunger</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. Uneven distribution of food</td>
<td>e.g. Malnutrition</td>
</tr>
<tr>
<td>Natural disasters</td>
<td>Death</td>
</tr>
<tr>
<td>War</td>
<td>Reduced mental capacity</td>
</tr>
<tr>
<td>Environmental degradation</td>
<td>Reduced productivity</td>
</tr>
</tbody>
</table>

Fishbone diagram on the causes of hunger

Spider map on the effects of hunger

Materials developed by Dr. Angel Lin & Miss Tracy Cheung © 2012
Example 2: Advertisements

Context: Social Issues / Popular Culture - Supplement

Text-type: Persuasive texts

Content area linkage: Social issues, liberal studies, science

Soy Protein

Quality proteins for vegetarians, people on diet and adolescents

- Source of natural plant proteins, amino acids essential for the formation of skin, hair, muscle and bones, and nutrients necessary for the production of hormones, antibodies and enzymes
- Suitable as replacement of meat proteins for vegetarian and people on diet, and is fat-free
- Suitable as extra source of nutrients for adolescents

“...the most useful protein supplement ever, it enlarges every muscle that you want it to...contains the best quality nutrients, it facilitates protein uptake after exercise and improves muscle strength, you will certainly love it”

After-meal slimming drink

With the new formula developed in Japan, this revolutionary slimming drink is the first slimming product to be used after meal

Lose 2 pounds within a day!
More effective than 10 pre-meal slimming pills in total.

This product contains B-chitosan complex which can stick on 99.9% of the dietary fats and remove them from the body. To further enhance slimming, the complex also reaches fatty cells and promotes fat burning by 9 times. Treated with nano technology, the super-concentrated drink takes effect in an hour after meal, which is 9 times faster than ordinary pre-meal slimming pills. The effect is very satisfying.

New Senior Secondary Curriculum Goals: Teaching of the Nature of Science (NOS) and Interconnections between Science, Technology, Society and Environment (STSE), through Innovative Learning and Teaching Activities
(retrieved from: http://learningscience.edu.hku.hk/Protein.html)
For example...

Advising strategies

Improvement of one self

Emotional appeal

Novelty

...the most useful protein supplement ever, it enlarges every muscle that you want it to... contains the best quality nutrients, it facilitates protein uptake after exercise and improves muscle strength, you will certainly love it.

In the English classroom

Advertising strategies

Improvement of one self

Emotional appeal

Novelty

New Senior Secondary Curriculum Goals: Teaching of the Nature of Science (NOS) and Interconnections between Science, Technology, Society and Environment (STSE), through Innovative Learning and Teaching Activities

(retrieved from: http://learningscience.edu.hku.hk/Protein.html)

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**The language of advertising**

- Direct address to the consumer
- Promises
- Question
- Vivid / superlative adjectives

---

**For example...**

**In the English classroom**

"... the most useful protein supplement ever, it enlarges every muscle that you want it to... contains the best quality nutrients, it facilitates protein uptake after exercise and improves muscle strength, you will certainly love it."

---

**New Senior Secondary Curriculum Goals: Teaching of the Nature of Science (NOS) and Interconnections between Science, Technology, Society and Environment (STSE), through Innovative Learning and Teaching Activities**

(retrieved from: http://learningscience.edu.hku.hk/Protein.html)

---

Materials developed by Dr. Angel Lin & Miss Tracy Cheung © 2012
For example in the *Science* classroom

Discussion questions for learning science:
- **Why** is protein so important to our bodies?
- **Can all** protein consumed be stored in the body for muscle building? Are there **any other factors** that could contribute to increasing muscle size?
- **Do you think** vegetarians especially **need the product** or other protein supplements? **Explain.**

“...the most useful protein supplement ever, it enlarges every muscle that you want it to... contains the best quality nutrients, it facilitates protein uptake after exercise and improves muscle strength, you will certainly love it”

For example...

In need of extra vitamin C to keep your body in good shape for a whole day? **Buffered C** is your choice!

The special formula of **Buffered C** releases vitamin C gradually over 10 hours and causes no damage to your stomach. It can promote immunity and reduce the severity of cold and flu symptoms.

After-meal slimming drink

With the new formula developed in Japan, this revolutionary slimming drink is the first slimming product to be used after meal.

Lose 2 pounds within a day!
More effective than 10 pre-meal slimming pills in total.

This product contains B-chitosancomplex which can stick on 99.9% of the dietary fats and remove them from the body. To further enhance slimming, the complex also reaches fatty cells and promotes fat burning by 9 times. Treated with nano technology, the super-concentrated drink takes effect within 10 minutes after meal, which is 9 times faster than ordinary pre-meal slimming pills. The effect is very satisfying!

*New Senior Secondary Curriculum Goals: Teaching of the Nature of Science (NOS) and Interconnections between Science, Technology, Society and Environment (STSE), through Innovative Learning and Teaching Activities ([retrieved from](http://learningscience.edu.hku.hk/Protein.html)](http://learningscience.edu.hku.hk/Protein.html))

*Materials developed by Dr. Angel Lin & Miss Tracy Cheung © 2012*
Energy is the ability to do work. All activities of living things need energy. For example, animals and plants need energy to walk and talk. The working of machines needs energy too. In the following, we will learn about some common forms of energy.

Light energy is the energy carried by light waves. For example, the sun gives out light energy. Burning candles and street lamps also give out light energy. The more light energy an object gives out, the brighter it is.

Heat energy is the internal energy of matters that gives their temperature. For example, the sun also gives out heat energy. The heat energy keeps the Earth warm. A gas flame gives out heat energy too. We can make use of the heat energy to cook. The more heat energy an object gives out, the hotter it is.

Sound energy is the energy carried by sound waves. When we hit a drum, the drum gives out sound energy. When we speak or sing, we give out sound energy too. The more sound energy an object gives out, the louder it is.

Kinetic energy is the energy of motion. A moving object possesses kinetic energy. When an athlete runs, he or she possesses kinetic energy. When a car moves, it also possesses kinetic energy. The faster an object moves, the more kinetic energy it possesses.

Potential energy is the energy of position. When an object is raised to a higher position, it gains potential energy. For example, a lift, and the passengers inside it, gains potential energy when they move upwards. The higher the position of an object is, the more potential energy it has. When we compress or stretch an elastic object, the object stores potential energy. For example, an elastic band stores potential energy when we stretch it.

Light energy, heat energy, sound energy, kinetic energy, and potential energy are some common forms of energy.
Energy is the ability to do work. All activities of living things need energy. For example, animals and plants need energy to grow. Humans need energy to walk and talk. The working of machines needs energy too. For example, vehicles need energy to move. Light bulbs need energy to glow. Therefore, energy is very important to mankind.

There are many different forms of energy. In the following, we will learn about some common forms of energy.

**Light energy** is the energy carried by light waves. For example, the sun gives out light energy. Burning candles and street lamps also give out light energy. The more light energy an object gives out, the brighter it is.

**Heat energy** is the internal energy of matters that gives their temperature. For example, the sun also gives out heat energy. The heat energy keeps the Earth warm. A gas flame gives out heat energy too. We can make use of the heat energy to cook. The more heat energy an object gives out, the hotter it is.

**Sound energy** is the energy carried by sound waves. When we hit a drum, the drum gives out sound energy. When we speak or sing, we give out sound energy too. The more sound energy an object gives out, the louder it is.

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Light energy, heat energy, sound energy, kinetic energy, and potential energy are some common forms of energy.

(Adapted from (1) Mastering Science 1B, pp. 133-141 & (2) Access Science, pp. 209-221)
Example 2

Graphic Organizer: Divergent Thinking Web

Common Forms of Energy
## Forms of Energy

<table>
<thead>
<tr>
<th>Forms of Energy</th>
<th>Definition</th>
<th>Examples</th>
<th>Amount / Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light energy</td>
<td>the energy carried by light weaves</td>
<td>the sun burning candles street lamps</td>
<td>The more light energy an object gives out, the brighter it is.</td>
</tr>
<tr>
<td>Heat energy</td>
<td>the internal energy of matters that gives their temperature</td>
<td>the sun a gas flame</td>
<td>The more heat energy an object gives out, the hotter it is.</td>
</tr>
<tr>
<td>Sound energy</td>
<td>the energy carried by sound waves</td>
<td>hitting a drum speaking singing</td>
<td>The more sound energy an object gives out, the louder it is.</td>
</tr>
<tr>
<td>Kinetic energy</td>
<td>the energy of motion</td>
<td>a running athlete a moving car</td>
<td>The faster an object moves, the more kinetic energy it possesses.</td>
</tr>
<tr>
<td>Potential</td>
<td>the energy of position</td>
<td>a lift moving upwards an elastic band being stretched</td>
<td>The higher the position of an object is, the more potential energy it has.</td>
</tr>
</tbody>
</table>

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Example 4: Voyages of Discovery

**Context:**
Age of Exploration

**Text-type:**
Explanation

**Content area linkage:**
History, liberal studies

**Voyages of Discovery**
What was the relationship between the Renaissance and Western expansion?

The Age of Exploration began during the Renaissance because the ideas at that time inspired Europeans a keen interest in the world. It also provided technical and navigational tools with which Europeans could explore. They could build ships for longer voyages, make better and more accurate maps, and learn the use of compasses and astrolabes.

Apart from this, there was a huge demand for Asian products like spices and silk in medieval Europe. Originally, these products were transported into Europe through land trade routes connecting Europe and Asia. However, by the 14th century, the Ottoman Turks had grown so powerful in the western part of Asia that they were blocking these trade routes. It had become necessary for the Europeans, who wished to keep their trade interests, to search for another route to the East.

The Europeans also wished to search for profitable new trading partners. They thought that they could buy spices and other goods more cheaply if they traded directly with the East. As a result, they sought to conquer and control their lands, and hoped to spread Christianity to different corners of the world.

Example: A mindmap to understand the short history text

- Renaissance
  - ideas inspired
  - fostered

- Better technology & navigation tools
  - equipped

- Looking for new trade routes
  - urged

- Seeking new trading partners
  - urged

- Age of Exploration
  - resulted in
  - hoped

- Conquering colonies
- Spreading Christianity

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References

References

- Example 1: Hunger is taken from *Learning English through Social Issues (Secondary 4-6): A Resource Package*

- Example 2: *Advertisements* is taken from *New Senior Secondary Curriculum Goals: Teaching of the Nature of Science (NOS) and Interconnections between Science, Technology, Society and Environment (STSE), through Innovative Learning and Teaching Activities.*

  - [http://learningscience.edu.hku.hk/GMFood.html](http://learningscience.edu.hku.hk/GMFood.html)
Acknowledgements

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- Special thanks also go to Dr. K. K. Tong, Dr. Evelyn Man and Dr. Kay Gallagher for their contribution during the development of these materials.
Professional Development Programme

Reading across the Curriculum
under the fine-tuned MOI arrangements

Session 2

Facilitators: Cheri Chan & Tanya Kempston
January 2012

Organized by the INSTEP, Faculty of Education, The University of Hong Kong and commissioned by the Education Bureau, The Government of the Hong Kong Special Administrative Region

Materials developed by Dr. Angel Lin & Miss Tracy Cheung © 2012
Part 1: Language Awareness

Session 1

Part 2: Pedagogies and Strategies

Session 2
1. The rhetorical functions of academic texts
2. Understanding vocabulary

8/22/2012

Materials developed by Dr. Angel Lin & Miss Tracy Cheung © 2012
Context
  e.g. Science, Geography, Economics

Text
  e.g. Procedure in Chemistry; Information Report

Paragraph/Sentence
  Rhetorical language functions:
    e.g. Compare & Contrast

Word
  Vocabulary


Materials developed by Dr. Angel Lin & Miss Tracy Cheung © 2012
INPUT 1: THE RHETORICAL FUNCTIONS OF ACADEMIC TEXTS
The functions of language: Any of the kinds of things that can be done in or through language. We speak or write to give information, to express an opinion, to try to get someone to do something, to make people laugh, and so on.

Rhetorical function: the effective use of language to achieve different purposes. Different types of texts use different language and different text organisation to achieve different purposes.
TASK 1: HELP STUDENTS IDENTIFY RHETORICAL LANGUAGE FUNCTIONS IN TEXTS
<table>
<thead>
<tr>
<th>No.</th>
<th>Sentence</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hong Kong island is in the shape of a frog.</td>
<td>Describing</td>
</tr>
<tr>
<td>2</td>
<td>All human beings are mortal.</td>
<td>Generalizing</td>
</tr>
<tr>
<td>3</td>
<td>A Wikipedia is an encyclopedia on the internet.</td>
<td>Defining</td>
</tr>
<tr>
<td>4</td>
<td>There are two major types of plants: flowering plants and non-flowering plants.</td>
<td>Classifying</td>
</tr>
<tr>
<td>5</td>
<td>It is possible that we will have more rainstorms this summer.</td>
<td>Speculating</td>
</tr>
<tr>
<td>6</td>
<td>Two marathon runners were hospitalized yesterday.</td>
<td>Reporting</td>
</tr>
<tr>
<td>7</td>
<td>If you let the oil cool down, it will turn cloudy.</td>
<td>Predicting</td>
</tr>
</tbody>
</table>

Group Task: What function does each of the sentences perform in the following text?

There is great danger to wildlife in the pollution of water. A good illustration of this is the oil released from tankers at sea. It kills all kinds of sea animals, including fish, plankton and other forms of marine life. Birds are also frequent victims, for they become oiled. That is to say, their feathers become covered with oil and they are unable to fly. Certain tankers are believed to regularly flout the regulations governing the discharge of oil at sea. If this could be proved, we should be in a better position to take action. As it is, the authorities are almost powerless and the slaughter continues unchecked.
## Rhetorical language functions

**Task:** Text-dependent functions

<table>
<thead>
<tr>
<th>No.</th>
<th>Sentence in the text</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There is great danger to wildlife in the pollution of water.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>A good illustration of this is the oil released from tankers at sea.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>It kills all kinds of sea animals, including fish, plankton and other forms of marine life.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Birds are also frequent victims, for they become oiled.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>That is to say, their feathers become covered with oil and they are unable to fly.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Certain tankers are believed to regularly flout the regulations governing the discharge of oil at sea.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>If this could be proved, we should be in a better position to take action.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>As it is, the authorities are almost powerless and the slaughter continues unchecked.</td>
<td></td>
</tr>
</tbody>
</table>

Use the following functions to help you:
- asserting
- commenting
- concluding
- exemplifying
- explaining
- explicating
- hypothesizing
- reinforcing
## Task: What function does each of the sentences in the text perform?

<table>
<thead>
<tr>
<th>No.</th>
<th>Sentence in the text</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There is great danger to wildlife in the pollution of water.</td>
<td>Asserting</td>
</tr>
<tr>
<td>2</td>
<td>A good illustration of this is the oil released from tankers at sea.</td>
<td>Exemplifying</td>
</tr>
<tr>
<td>3</td>
<td>It kills all kinds of sea animals, including fish, plankton and other forms of marine life.</td>
<td>Explaining</td>
</tr>
<tr>
<td>4</td>
<td>Birds are also frequent victims, for they become oiled.</td>
<td>Reinforcing</td>
</tr>
<tr>
<td>5</td>
<td>That is to say, their feathers become covered with oil and they are unable to fly.</td>
<td>Explicating</td>
</tr>
<tr>
<td>6</td>
<td>Certain tankers are believed to regularly flout the regulations governing the discharge of oil at sea.</td>
<td>Hypothesizing</td>
</tr>
<tr>
<td>7</td>
<td>If this could be proved, we should be in a better position to take action.</td>
<td>Commenting</td>
</tr>
<tr>
<td>8</td>
<td>As it is, the authorities are almost powerless and the slaughter continues unchecked.</td>
<td>Concluding</td>
</tr>
</tbody>
</table>
Recognising text organisation: Sample group tasks at the *paragraph* and *sentence* levels

- Where does the missing paragraph belong?
- What’s the most appropriate opening/closing paragraph?
- Find the odd-one-out.
- Match paragraphs to their topic sentences.
- The same kind of tasks can also be done at the sentence level.
- “Tasks of this kind are popular with students and extremely effective” (Nuttall, p. 106).
INPUT 2: HELP STUDENTS IDENTIFY KEY VOCABULARY IN THE TEXT
Word level: Vocabulary bricks

- **High frequency** vocabulary: 2,000 words
- **General academic** vocabulary: 570 word families
- **Technical** vocabulary: subject-specific words e.g. *photosynthesis; delta*
- **Low frequency** vocabulary: 15-20 K word families; words that are not on the above lists (Nation & Gu, 2007, p.2)

“*The more specialized a subject area, the less it makes use of high-frequency words.*” (Paltridge et al., Teaching Academic Writing)
Vocabulary mortar (cement/glue)

- Signalling words (discourse markers or connectives):
  - e.g. first, second, then, finally, in conclusion; however, but; similarly; in contrast, ... etc.

- The **Age of Exploration** refers to the period of exploration during the 15th and 16th centuries, a period of new voyages and **also** a new world. The Age of Exploration began during the Renaissance **because** the ideas at that time inspired in the Europeans a keen interest in the world.
High frequency words

“In general, high-frequency words are so important that anything that teachers and learners can do to make sure they are learned is worth doing” (Nation, 2001, p. 17).

- High-frequency words: approximately 2000 word families (West’s General Service List, 1953) = the 2000 most frequent words in English.
- They cover about 82% of the words in a typical general text: 4 out of 5 words will be known.

- Do all your students know these words when they enter secondary school?
Low-frequency words

“When teachers spend time on low-frequency words in class, they should be using the words as an excuse for working on the strategies.” (Nation, 2001, p. 21).

Learners need to be taught strategies for dealing with low frequency words: e.g. guessing from context, using dictionaries.
The Academic Word List (Coxhead, 1998)

- 570 words that are not in the high frequency word list, but which occur frequently in academic texts.

- If students know these two sets of words (high frequency + academic) they will recognise 9 out of 10 words in a general academic text.

- These words need to be taught and learned in secondary school, just as the high frequency words are learned in primary school.


Twenty most frequently occurring academic words in three subject areas of Coxhead’s (2000) academic corpus


<table>
<thead>
<tr>
<th>History</th>
<th>Economics</th>
<th>Biology</th>
</tr>
</thead>
<tbody>
<tr>
<td>liberal</td>
<td>economy</td>
<td>individual</td>
</tr>
<tr>
<td>policy</td>
<td>policy</td>
<td>occur</td>
</tr>
<tr>
<td>economy</td>
<td>tape</td>
<td>sequence</td>
</tr>
<tr>
<td>labour</td>
<td>vary</td>
<td>evolve</td>
</tr>
<tr>
<td>area</td>
<td>cycle</td>
<td>vary</td>
</tr>
<tr>
<td>major</td>
<td>consume</td>
<td>region</td>
</tr>
<tr>
<td>issue</td>
<td>output</td>
<td>normal</td>
</tr>
<tr>
<td>community</td>
<td>export</td>
<td>structure</td>
</tr>
<tr>
<td>civil</td>
<td>income</td>
<td>function</td>
</tr>
<tr>
<td>period</td>
<td>data</td>
<td>similar</td>
</tr>
<tr>
<td>identify</td>
<td>finance</td>
<td>identify</td>
</tr>
<tr>
<td>medical</td>
<td>theory</td>
<td>sex</td>
</tr>
<tr>
<td>culture</td>
<td>series</td>
<td>complex</td>
</tr>
<tr>
<td>tradition</td>
<td>function</td>
<td>specific</td>
</tr>
<tr>
<td>evident</td>
<td>adjust</td>
<td>process</td>
</tr>
<tr>
<td>individual</td>
<td>regime</td>
<td>environment</td>
</tr>
<tr>
<td>significant</td>
<td>constrain</td>
<td>react</td>
</tr>
<tr>
<td>final</td>
<td>invest</td>
<td>select</td>
</tr>
<tr>
<td>create</td>
<td>respond</td>
<td>analyze</td>
</tr>
<tr>
<td>military</td>
<td>aggregate</td>
<td>require</td>
</tr>
</tbody>
</table>

*Materials developed by Dr. Angel Lin & Miss Tracy Cheung © 2012*
In addition to spending time teaching general academic vocabulary, we need to teach *subject-specific* vocabulary.

Textbooks usually help by highlighting these words, and they may be explained and/or translated in a glossary.

Mathematics: *integer, interest, logarithm, matrix, numerator, oblique, parallelogram*
Vocabulary mortar: the signalling words and phrases must also be taught

<table>
<thead>
<tr>
<th>Bricks</th>
<th>Mortar - signalling words</th>
</tr>
</thead>
<tbody>
<tr>
<td>History Revolution, emancipation, civil rights</td>
<td>As a result; Consequently; This led to;</td>
</tr>
<tr>
<td>Mathematics Proof, hypotenuse, square root</td>
<td>If ... then; suppose that ...;</td>
</tr>
<tr>
<td>Science Gravity; force; filtration</td>
<td>First; caused by; This is due to ...</td>
</tr>
</tbody>
</table>

(Adapted from Zweirs, 2008, p. 23)
TASK 2: HELP STUDENTS IDENTIFY TYPES OF VOCABULARY IN ACADEMIC TEXTS
Task 2: Helping students ‘tackle’ academic vocabulary

- Read the science text about ‘Photosynthesis and respiration’.
- First circle the technical terms.
- Second, find the sentences in the text that define these terms.
- Third, find some general academic words and underline them. Finally highlight the signalling words, and discuss the functions of the signalling words.
Photosynthesis and respiration are living characteristics. Both involve energy changes. However, photosynthesis takes place in plants while respiration takes place in both plants and animals.

In photosynthesis, light energy is converted to chemical energy (stored in food). In respiration, chemical energy (stored in food) is released for body activities and eventually changes into heat energy. In short, photosynthesis is a building-up process where food is formed from carbon dioxide and water in the presence of light energy. Respiration is a breaking-down process where food is broken down to release energy for work. In the process carbon dioxide and water are released.
Task 2:

Photosynthesis and respiration are living characteristics. Both involve energy changes. However, photosynthesis takes place in plants while respiration takes place in both plants and animals.

In photosynthesis, light energy is converted to chemical energy (stored in food). In respiration, chemical energy (stored in food) is released for body activities and eventually changes into heat energy. In short, photosynthesis is a building-up process where food is formed from carbon dioxide and water in the presence of light energy. Respiration is a breaking-down process where food is broken down to release energy for work. In the process carbon dioxide and water are released.
Helping Students handle the vocabulary: Group Discussion

- Read the text again. Look at the technical terms and the sentences in the text that define the terms.
- Discuss what strategies we can use to help students learn new words in academic texts?
Teaching *general academic and technical* vocabulary

- Gloss or annotate words in the text – students use highlighters or coloured markers.
- Teach the entire word family.
- Teach word parts e.g. roots and affixes (*underdeveloped*, for example).
- [Concept mapping](#)
- [Semantic mapping](#)
- [Word cards](#)
- [Word walls](#)
<table>
<thead>
<tr>
<th>Figurative Language</th>
<th>Story</th>
<th>Drama</th>
<th>Poetry</th>
<th>Research</th>
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<tr>
<td>metaphor</td>
<td>protagonist</td>
<td>lighting</td>
<td>ballad</td>
<td>database</td>
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<td>antagonist</td>
<td>set design</td>
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<td>blocking</td>
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<td>tone</td>
<td>makeup</td>
<td>lyric</td>
<td>citation</td>
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<td>allusion</td>
<td>point of view</td>
<td>costume</td>
<td>ode</td>
<td>paraphrase</td>
</tr>
<tr>
<td>imagery</td>
<td>theme</td>
<td>voice</td>
<td>simile</td>
<td>quotation</td>
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<tr>
<td>oxymoron</td>
<td>narrator</td>
<td>expression</td>
<td>metaphor</td>
<td></td>
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<td></td>
<td>dialogue</td>
<td>cues</td>
<td>personification</td>
<td></td>
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<td></td>
<td>foreshadowing</td>
<td>monologue</td>
<td>imagery</td>
<td></td>
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<td></td>
<td>flashback</td>
<td>soliloquy</td>
<td>symbolism</td>
<td></td>
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<tr>
<td></td>
<td>characterization</td>
<td>dialogue</td>
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<td></td>
<td>irony</td>
<td>aside</td>
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<td></td>
<td>hyperbole</td>
<td>comedy</td>
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<td>pun</td>
<td>tragedy</td>
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<td>dialect</td>
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<td></td>
<td>stereotype</td>
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<tr>
<td></td>
<td>caricature</td>
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</tbody>
</table>

Academic Word Wall


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**international**

**Family:** international (adj), internationalism (noun), internationalize (verb), internationalization (noun).

**Meaning:** connected with or involving two or more countries

**Collocations:** international airport, international cooperation, international relations, international trade

**Use:** The **United Nations (UN)** is an international organization whose stated aims are facilitating cooperation in international law, international security, economic development, social progress, human rights, and achievement of world peace. (source: Wikipedia)
A multiple-meaning map

N. A book or bound collection of maps.

I use an atlas to plan my drive to New York.

N. Greek mythology character-Than condemned to support the heavens on his shoulders

In Greek mythology Atlas carries a great burden.

N. A large size of drawing paper, 26 x 33 inches

N. A person bearing a great burden.

N. An intercontinental ballistic missile developed by the U.S. Air Force

The U.S. Air Force fired the Atlas at target.

**FORCE**

**DEFINITION**
- A push or pull

**CHARACTERISTICS**
- Measured in Newtons
- Can stop something
- Can make something move or move at a different speed

<table>
<thead>
<tr>
<th>EXAMPLES</th>
<th>NON-EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catching a ball</td>
<td>Acceleration</td>
</tr>
<tr>
<td>Throwing a ball</td>
<td>Speed</td>
</tr>
<tr>
<td>Gravity</td>
<td>Velocity</td>
</tr>
<tr>
<td>Centripetal force</td>
<td>Mass</td>
</tr>
<tr>
<td>Hurricanes</td>
<td>Weight</td>
</tr>
<tr>
<td>Pushing</td>
<td>Power</td>
</tr>
<tr>
<td>Magnets</td>
<td>Work</td>
</tr>
</tbody>
</table>

*Figure 8.7  Frayer Model Map—Force #2*

*Source: Whittaker, p. 156*
Sentence Patterns of Different Rhetorical Functions

<table>
<thead>
<tr>
<th>Rhetorical functions</th>
<th>Sentence Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Describing</strong></td>
<td>The brown bear has powerful claws and jaws (so they can hunt).</td>
</tr>
<tr>
<td></td>
<td>Bald eagles are among the largest birds of prey on the planet.</td>
</tr>
<tr>
<td>2. <strong>Disagreeing</strong></td>
<td>I don’t think the evidence supports the conclusion because the total amount of mass should always be the same.</td>
</tr>
<tr>
<td></td>
<td>I don’t agree with that statement because a foetus grows inside the amnion but not the oviduct.</td>
</tr>
<tr>
<td>3. <strong>Citing information</strong></td>
<td>Here we see that most air pollution comes from cars and other motor vehicles.</td>
</tr>
<tr>
<td>4. <strong>Estimating</strong></td>
<td>Looking at the graph, I think there is an increase demand for fresh water.</td>
</tr>
<tr>
<td>5. <strong>Retelling</strong></td>
<td>First, a few drops of filtered pond water were added on a cavity slide. Next, a few drops of chlorine water were added to the filtered pond water on the slide. Then, under the microscope, the living micro-organisms were found dead.</td>
</tr>
<tr>
<td></td>
<td>The air inside each corn was expanding (when the corn grains were being heated.)</td>
</tr>
<tr>
<td></td>
<td>Hong Kong’s first water treatment works has been working since 2000.</td>
</tr>
</tbody>
</table>

### Sentence Patterns of Different Rhetorical Functions

<table>
<thead>
<tr>
<th>Rhetorical functions</th>
<th>Sentence Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicting</td>
<td>I think the water vapour will condense and form water droplets.</td>
</tr>
<tr>
<td></td>
<td>The temperature is going to increase.</td>
</tr>
<tr>
<td></td>
<td>The annual water consumption will remain the same.</td>
</tr>
<tr>
<td></td>
<td>The size of the sugar cube might decrease.</td>
</tr>
<tr>
<td></td>
<td>_______ (could/might etc) _______.</td>
</tr>
<tr>
<td></td>
<td>I think the demand for electricity is increasing because more and more people are using air conditioners in the summer.</td>
</tr>
<tr>
<td>Giving and supporting opinions</td>
<td>I agree with the author because without the invention of the printing press, publishing would not be able to flourish and knowledge could not be easily passed on.</td>
</tr>
<tr>
<td></td>
<td>In my opinion, generation of electricity should be the most important invention ever because without electricity we would not be able to live the life the way we are today.</td>
</tr>
<tr>
<td>Showing cause and effect</td>
<td>The moisture had seeped into cracks and then froze, so the pressure of its expanding volume can fracture rock.</td>
</tr>
<tr>
<td></td>
<td>If human hadn’t been destroying their habitat, dodo bird wouldn’t have been extinct.</td>
</tr>
<tr>
<td>Drawing conclusion</td>
<td>Galileo was an important scientist because he had made some of the most important discoveries in the history of astronomy.</td>
</tr>
<tr>
<td>Comparing</td>
<td>Animal cells are similar to plant cells because both of them have mitochondria.</td>
</tr>
</tbody>
</table>

# Sentence Patterns of Different Rhetorical Functions

<table>
<thead>
<tr>
<th>Rhetorical functions</th>
<th>Sentence Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contrasting</strong></td>
<td>Plant cells are different from animal cells because only plant cells have chloroplasts and the other doesn’t. Cellular respiration is the process in which oxygen is chemically combined with food molecules in the cell to release energy, whereas photosynthesis is the process in which energy trapped in the chloroplasts break down carbon dioxide gas and water to form oxygen and sugar.</td>
</tr>
<tr>
<td><strong>Sequencing</strong></td>
<td>We saw that first a few drops of filtered pond water were added on a cavity slide. Then, a few drops of chlorine water were added to the filtered pond water on the slide. At the end, under the microscope, the living micro-organisms were found dead.</td>
</tr>
<tr>
<td><strong>Hypothesizing</strong></td>
<td>If the cord length had increased, then the time a pendulum would take for a back-and-forth swing would have increased.</td>
</tr>
<tr>
<td><strong>Persuading</strong></td>
<td>As we just saw in the experiment, _______ does _______ due to _______. (Complex sentences with varied verb forms and tag questions, idiomatic expressions or embedded clause).</td>
</tr>
</tbody>
</table>

## Sentence Patterns of Different Rhetorical Functions

<table>
<thead>
<tr>
<th>Rhetorical functions</th>
<th>Sentence Patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>15 Measuring</strong></td>
<td>A _______ is _______ cm long, _______ cm wide and _______ cm tall.</td>
</tr>
<tr>
<td></td>
<td>The metal block is 5 cm long, 5 cm wide and 5 cm tall. This cylinder holds a volume of 200 ml.</td>
</tr>
<tr>
<td></td>
<td>Before we _______, the liquid _______, but now it _______.</td>
</tr>
<tr>
<td><strong>16 Constructing charts, tables and graphs</strong></td>
<td>Plot _______ and _______.</td>
</tr>
<tr>
<td></td>
<td>Draw the graph of the linear equation $y=2-1/2 \times$ from $x=-2$ to $x=6$.</td>
</tr>
<tr>
<td><strong>17 Distinguishing fact from opinion</strong></td>
<td>Although you say stress is usually not considered a disease, the table shows that stress is linked to disease.</td>
</tr>
<tr>
<td><strong>18 Summarizing</strong></td>
<td>The main idea from this observation is that light is necessary for photosynthesis to take place. In short, photosynthesis is a food-making process of plants.</td>
</tr>
<tr>
<td><strong>19 Identifying relationships</strong></td>
<td>Light is necessary for photosynthesis because it is used by the plant cell to produce energy and carbohydrates.</td>
</tr>
</tbody>
</table>


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Question prompts used in HKDSE sample papers

- Physics, paper 1, section B, question 13:
  - draw (a conclusion)
  - deduce
  - describe
  - suggest & state

- Geography, paper 1, section C, question 6:
  - with reference to... explain
  - To what extent do you think...

- History, paper 2, question 7:
  - In what ways... explain with reference

- Liberal Studies, paper 1, question 1:
  - consider & identify
  - identify & explain
  - Do you agree... & explain
11. Some Hong Kong politicians have demanded for the introduction of a minimum wage law for low income earners, such as security guards and cleaning workers.

a. Consider an industry in which the market wage rate is at its equilibrium. With the aid of a diagram, explain how the introduction of an effective minimum wage would affect.
   - i. the number of workers employed in that industry (4 marks)
   - ii. the total wage earnings of the workers in that industry (7 marks)

b. “A minimum wage should be introduced to protect the interests of low-income workers.” Evaluate this proposal. (7 marks)
Economics: Paper 2 Question 11 student’s exemplar (level 5)

“A minimum wage should be introduced to protect the interests of low-income workers.” Evaluate this proposal. (7 marks)

If a minimum wage is introduced, the number of workers employed will decrease by (a)(i). So, introduction of a minimum wage would lead to unemployment problem. The interest of low-income workers cannot be protected.

Considering the total wage earnings of the workers, after the introduction of a minimum wage, by (a)(ii), the total wage earnings may decrease when the demand for the labour is elastic. So, the interest of these workers cannot be protected. Even if the total wage earnings increase under the case of inelastic demand, with a higher wage, the employers may choose to employ workers with higher productivity or higher education level, the lower-skilled people such as teenagers cannot find jobs and get working experience easily. This also leads to unemployment and other serious social problems. To conclude, the minimum wage cannot protect the interests of low-income workers.

State one’s position and answer regarding the proposal

Explain the position and answer in terms of economic concepts

Conclusion – summarizing one’s position regarding the proposal
9. There are four unlabelled reagent bottles each containing one of the white solids listed below:

- ammonium chloride, ammonium nitrate, sodium hypochlorite and sodium sulphate

**Suggest** how you would carry out tests to distinguish the four solids from one another. (9 marks)
Chemistry: Paper 1 Section B Question 9

**Suggest** how you would carry out tests to distinguish the four solids from one another.

**Adapted suggested answers**

There are four unlabelled reagent bottles each containing ammonium chloride, ammonium nitrate, sodium hypochlorite and sodium sulphate individually. To distinguish each of them, different tests can be carried out.

First of all, flame tests or heating samples with NaOH solution can distinguish the two sodium compounds from the two ammonium compounds.

Conduct flame tests using the four samples. Only the two sodium compounds (NaOCL and Na$_2$SO$_4$) give a golden yellow flame. Alternatively, heat the four samples with NaOH solution. Only the two ammonium compounds (NH$_4$Cl and NH$_4$NO$_3$) give an alkaline gas or ammonia.

To differentiate the two sodium compounds (NaOCL and Na$_2$SO$_4$), add hydrogen chloride solution [HCl(aq)] to them. Only sodium hypochlorite gives a greenish yellow gas, which is chlorine. On the other hand, touch the two sodium compounds with moist litmus paper or colour flower petal. Only sodium hypochlorite (NaOCL) gives a bleaching effect to the paper or petal.

Another test that can differentiate the two sodium compounds is to add acidified Barium chloride (BaCl$_2$) solution to aqueous solutions of the two compounds. Only Na$_2$SO$_4$ gives a white precipitate.

To differentiate the two ammonium compounds (NH$_4$Cl and NH$_4$NO$_3$), add acidified Silver nitrate (AgNO$_3$) solution to aqueous solutions of the two compounds. Only ammonium nitrate (NH$_4$NO$_3$) gives a white precipitate.

After the above tests are done, the four unlabelled solids can be distinguished.
PLENARY DISCUSSION: HOW TEACHERS CAN HELP STUDENTS
Plenary Discussion: How can English teachers help students?

Addressing learner diversity:
The following are some useful post-reading tasks for academic texts (tasks that will encourage students to apply knowledge, information & vocabulary learnt from the text in a new context).

Discuss each task type and rank them in order of difficulty (easy to high challenge) for ESL learners:

- a flow–chart
- Timeline
- Debate
- Write a reflective journal
- Draw a visual organiser
- Venn diagram
- Design a step by step chart
- Role-play discussion / drama
- Writing a report
- Produce a poster
- Make a video clip for You Tube e.g. an advert
How can English teachers help students and content-subject teachers – roles and possibilities

- English teachers have a special role to play to help students tackle various types of texts so that their students can apply the strategies when reading textbooks of other subjects
- Some possible teaching and collaboration ideas
  - (1) Incorporating a variety of content-area topics
    - From familiar to less familiar
    - Familiar: social issues topics, newspaper articles, magazine articles
    - Less familiar: subject-specific texts from textbooks or other content-read reading resources
  - (2) Explicit teaching of text structure and academic reading skills
    - Text type
    - Move analysis
    - Language features/characteristics for different content-subjects
    - Move specific sentence patterns
    - Different types of vocabulary: technical specific, general academic, signalling words
End of sessions 1 & 2

- A quick review
The Programme: Session 3

Part 1: Language Awareness

Session 1

Part 2: Pedagogies and Strategies

Session 3

1. The Reading Cycle
2. Scaffolds for reading
3. Key comprehension strategies for academic reading
Session 4

1. Modelling teacher talk in reading lessons – use examples of text

2. Implementation of RAC / LAC
References

References: Question prompt examples

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Acknowledgements

- This presentation has drawn on materials developed by Dr. Angel Lin and Ms. Tracy Cheung and they are gratefully acknowledged.
- Special thanks also go to Dr. K. K. Tong, Dr. Evelyn Man and Dr. Kay Gallagher for their contribution during the development of these materials.
Professional Development Programme

Reading across the Curriculum under the fine-tuned MOI arrangements

Session 3

Dr. Evelyn Y. F. Man
January 2012
evelynman@gmail.com

Organized by the INSTEP, Faculty of Education, The University of Hong Kong and commissioned by the Education Bureau, The Government of the Hong Kong Special Administrative Region
Part 1: Language Awareness

Part 2: Pedagogies and Strategies

The Programme: Session 3

Session 3
1. The Reading Cycle
2. Scaffolds for reading
3. Key comprehension strategies for academic reading

Session 4
The Reading to Learn Cycle

Preparation

Before Reading

Reading

to Learn

Genre Models

Independent Writing

Joint Construction

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Scaffolding Interactions in Reading

The students’ task is to understand meaning through identifying wordings/ connectives/ concepts/ language features.. in the text

Teachers prepare with cues telling students what the words/concepts mean and where to look

Then teachers elaborate by defining words, explaining concepts, or discussing student’s experience.

"What teachers do, in a nutshell, is talk around text“ (Rose 2011, p. 82.)

- Explicit teaching of academic texts is necessary, e.g. introducing the logic of science (e.g. non-linear, non-narrative modes of thinking)
- Linguistic features of academic language is very important: what science teachers have picked up as ‘common sense’ may have to be taught to ESL/EFL students explicitly
- The need to “talk around text”
Scaffolds for reading

What kinds of scaffolding do teachers routinely provide?

- Pre-reading activities
- While-reading activities
- Post-reading activities

Visual representation of text and use of graphic organizers
Using graphic organizers to help students understand e.g. the logic of science (scientific thinking mode)

- **Classification (Pasquarelli, 2006)**

  - Types of Whales
    - Right whales
    - Killer whales
Using graphic organizers to help students understand the logic of science (scientific thinking mode)

- Comparison / Contrast (Pasquarelli, 2006)

<table>
<thead>
<tr>
<th></th>
<th>Habitat</th>
<th>Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right Whale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Killer Whale</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Using graphic organizers to help students understand the logic of science (scientific thinking mode)

- Problem / solution (Pasquarelli, 2006)

<table>
<thead>
<tr>
<th>Problems</th>
<th>Solutions</th>
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<tbody>
<tr>
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</tbody>
</table>
Graphic organizers for reading lessons

- Look at the texts. Can you create some graphic organizers to help your students understand the text?
- Present your graphic organizers to the class afterwards.
Create a Graphic Organizer – “Living things and non-living things”

- Look at the things around us. Some of them are living but most of them are non-living. Living things are things that show the characteristics of life. Some examples are grass, birds, fish and humans. Non-living things are things that do not show the characteristics of life. Some examples are cars, clocks, paper, stones, dried grass and roasted chickens.

(adopted from iScience, 1A. p. 2-5.)
Text –

Create a mindmap based on the following text. What text type is it? Can you create a similar piece of writing for the Tsing Ma Bridge?

Hong Kong International Airport
In 1998, the Hong Kong International Airport was officially opened on Lantau Island. The airport can handle 45 million passengers and 3 million tons of cargo annually. It is the lifeline of Hong Kong’s economy, and is especially important to the development of commerce and the tourist industry. Since 2003, the airport has been named the world’s best airport by over 40 million passengers annually.

(Source: HKDSE History Inquiry Vol. 1 Introduction Theme A, pp. 68-69)
Graphic Organizers for Reading Across the Curriculum

- Description

Graphic Organizers for Reading Across the Curriculum

- **Sequence**
  - Series of events
  - cycle

Graphic Organizers for Reading Across the Curriculum

- **Comparison (compare and contrast)**

  ![Comparison Diagram]

  - **Item 1**
  - **Item 2**
  - **Similarities**
  - **Differences**
  - **Facts only about item 1**
  - **Facts about both items**
  - **Similiarities**
  - **Differences**
  - **Facts only about item 2**


*Materials developed by Dr. Angel Lin & Miss Tracy Cheung © 2012*
Graphic Organizers for Reading Across the Curriculum

- Cause-and-effect


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Using graphic organizers to help students understand the logic of science (scientific thinking mode)
Graphic Organizers for Reading Across the Curriculum

- Problem and solution

- Define the Problem
  - Who
  - What
  - When
  - Where
  - Why
  - How

- Attempted Solutions
- Results
- Final Results

Compare and contrast -
Comparing Squirrels and Sparrows

- What are squirrels?  What are sparrows?
- Are they the same?
- Are they different?
A report comparing squirrels and sparrows:

- **Squirrels and sparrows have both similarities and differences.**
- Squirrels and sparrows are both animals with backbones. Therefore, they are both vertebrates. Squirrels can move. Sparrows can move too. Both squirrels and sparrows have senses.
- However, squirrels and birds have some differences too.
- A squirrel is a mammal but a sparrow is a bird.
- A squirrel has fur but a sparrow doesn’t.
- A sparrow has a beak but a squirrel doesn’t.
- A squirrel has milk glands but a bird has no milk glands.
- A bird lays eggs but a squirrel does not lay eggs.
- **To conclude, although both squirrels and sparrows are vertebrates, squirrels are mammals but sparrows are birds.**
### Compare and contrast

**Task 3: Comparing Squirrels and Sparrows**

<table>
<thead>
<tr>
<th>Item</th>
<th>Squirrels</th>
<th>Sparrows</th>
</tr>
</thead>
<tbody>
<tr>
<td>item 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>item 2</td>
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<td></td>
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<tr>
<td>item 3</td>
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<td>item 4</td>
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<tr>
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</tr>
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<td>item 8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Compare and contrast
### Task 3: Comparing Squirrels and Sparrows

<table>
<thead>
<tr>
<th>Property</th>
<th>Squirrels</th>
<th>Sparrows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal with a backbone</td>
<td>Mammal</td>
<td>Bird</td>
</tr>
<tr>
<td>Can they move?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Do they have senses?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Do they have feathers?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Do they have fur?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Do they have a beak?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Do they have milk glands?</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Can they lay eggs?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Table of comparison notes

<table>
<thead>
<tr>
<th>Squirrels</th>
<th>Sparrows</th>
</tr>
</thead>
</table>

Materials developed by Dr. Angel Lin & Miss Tracy Cheung © 2012
A report comparing squirrels and sparrows:

Squirrels and sparrows have both similarities and differences.

Squirrels and sparrows are both animals with backbones. Therefore, they are both vertebrates. Squirrels can move. Sparrows can move too. Both squirrels and sparrows have senses.

However, squirrels and birds have some differences too. A squirrel is a mammal but a sparrow is a bird. A squirrel has fur but a sparrow doesn’t. A sparrow has a beak but a squirrel doesn’t. A squirrel has milk glands but a bird has no milk glands. A bird lays eggs but a squirrel does not lay eggs.

To conclude, although both squirrels and sparrows are vertebrates, squirrels are mammals but sparrows are birds.
A report comparing squirrels and sparrows:

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To conclude, although both squirrels and sparrows are vertebrates, squirrels are mammals but sparrows are birds.
Key Comprehension Strategies for Academic Reading

To understand any sentence or paragraph, a reader must be able to use the following simultaneously:

- align his or her word meanings with the author’s meanings for those words,
- need to understand and condense (chunk) what came before in the text,
- determine the important information in a sentence by analyzing its clauses to understand the main participants, processes, and circumstances,
- connect existing knowledge to the abstractness of academic texts and come up with their own examples, and
- recognize the author’s purposes, structure, and commitment in the text.

Scaffolds for Academic Reading -
Oral Scaffold

(1) Read-Aloud

- Teachers read the text aloud as experts in their content areas. They illustrate how to use punctuation, pauses and intonation to separate clauses, stress key ideas and differentiate subordinate information.

- Students then are able to hear a good model of academic text deconstruction.
Oral Scaffolds for Academic Reading

(2) Think-Aloud

While teachers read the text aloud, they also model how an effective reader thinks about what she or he is reading.

Both the content and the language and thinking of the text are shown through teacher’s modeling in order to comprehend the text.
Text Discussion Activities

1. Anticipation Chats
   - This is an activity that can serve as a pre-reading, pre-presentation or pre-video activity. A topic is given to students with appropriate graphic organizer(s) for discussion. Students discuss the given topic in groups, and write down any ideas.

2. Role-based Discussion Groups

3. Partner Problem Solving

4. “K-W-L” chart

Activities for understanding text organization

(1) Colour Coding

- In this activity, students use different colour codes to dissect texts in textbooks in order to better understand academic language, thinking and idea organization.
  - “When nothing much is happening, a neuron usually sends impulses down the axon at a relatively slow, irregular rate. When a neuron is stimulated (receives excitatory signals from another neuron), however, the sodium channels in the membrane open and the positively charged sodium ions enter the cell. This makes the potential difference temporarily more positive inside than outside. As soon as this occurs, however, positively charged potassium ions leave the cell, changing the voltage to more negative than normal.” (Zibrel, 2004, p. 5)

- However – showing contradictions
- This makes – showing causal links
Activities for understanding text organization

(2) Historical Source Analysis Table

- When reading a text in history books, students can think critically with a historical source analysis table.

- Example: Learning the topic The French Revolution and Napoleon. What would you like to know? Can you come up with a table listing the important issues / things that you would like to know / need to be learnt?
# Activities for understanding text organization

<table>
<thead>
<tr>
<th>Event, person, source</th>
<th>French Revolution</th>
<th>Napoleon</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>My questions</strong></td>
<td>Why did it start?</td>
<td>Did he do more good or bad?</td>
</tr>
<tr>
<td></td>
<td>Why is it important?</td>
<td></td>
</tr>
<tr>
<td><strong>Hypothesized answers</strong></td>
<td>People were mad.</td>
<td>More bad because he caused wars.</td>
</tr>
<tr>
<td></td>
<td>People were freed.</td>
<td></td>
</tr>
<tr>
<td><strong>Purpose and importance</strong></td>
<td>Got people thinking about freedom and rights.</td>
<td>Spread revolutionary ideas around</td>
</tr>
<tr>
<td><strong>Empathy notes</strong></td>
<td>I would have fought if treated like that.</td>
<td>I would like all that power, but not abuse it.</td>
</tr>
<tr>
<td><strong>Possible biases</strong></td>
<td>Lots of people not talked about in text</td>
<td>What did Napoleon write about himself?</td>
</tr>
<tr>
<td><strong>Application and lessons</strong></td>
<td>Ideas still around; Church and state separation?</td>
<td>Many modern leaders are like him</td>
</tr>
</tbody>
</table>
Reading Activities that Build Academic Grammar

(1) Marking Up Long Sentences

- As academic texts often have long sentences and multiple clauses in a single sentence, students with less language proficiency will have great difficulty. It is useful if teachers can analyze and identify key parts of sentences and clauses, separating the crucial, main ideas from extra information.

- The key parts of the sentence often include (1) main participant, (2) main process, and (3) main receiver. (“What is doing what to what?”) Students can underline, circle, colour-code this information as guided by the teacher.

  - E.g. Urbanization is lowering the quality of life.
Reading Activities that Build Academic Grammar

(2) Using gestures for Cohesive Devices, Transitions, Conjunctions

- Cohesive devices are words that connect complex ideas together in academic texts. Teachers can use different hand motions to signal different cohesive devices used in the text.
- Opposing ideas (e.g., nevertheless, on the other hand, despite and yet) →
  - Hand moves forward, then lift and U-turn to the opposite direction
- Cause-and-effect ideas (e.g. therefore, thus, for this reason, as a result, consequently) →
  - Hand rolls forward
- Supporting evidence expressions (e.g. for example, for instance) →
  - Fingers under the palm, acting as the “legs” of a table
How to teach students to answer common question types in science

- Look at the following table.
- Compare the demands for different energy sources in 2010 and 1970.
- Explain the differences with at least 3 possible causes.
Task:
The World’s Demand for Energy

The World's Demand of Energy Sources

- Oil
- Natural Gas
- Renewables

Year

Amount (in $10^{24}$ BTU)
The demand for different energy sources in 2010 is much higher than that in 1970.

For example, the demand for oil in 1970 was 100 units but the demand for oil in 2010 is 185 units. The demand for natural gas in 1970 was 40 units but the demand for natural gas in 2010 is 80 units.

To conclude, the demand for different energy sources in 2010 has increased greatly.
Task - The World’s Demand for Energy. Why has it increased over the years?

Cause 1?
Cause 2?
Cause 3?
The demand for different energy sources in 2010 is much higher than that in 1970. There are 3 possible main causes.

First, the world has built more factories. Second, people have used more computers. Third, people have used more cars.

Therefore, the demand for different energy sources has increased greatly over the years.
Academic text-types: E.g., Definitions

Science Classroom
What is a definition?

- A definition is an exact word or phrase of the meaning, nature, or limits of something.
- A definition usually answers the question what.

Simple definitions:

What is Science?
Science is the study of nature and how it affects our environment and us.
There are different branches in Science. Some common examples are Physics, Chemistry, Biology, Geology and Astronomy.

- **Physics** is the study of matter, energy, and natural forces.
- **Chemistry** is the study of the properties, composition and reactions of substances.
- **Biology** is the study of living things.
- **Geology** is the study of rocks, soil and the structure of the Earth.
- **Astronomy** is the study of the Sun, the Moon, stars, planets etc.
Teaching students the sentence patterns to write science definitions:

What is the pattern of a definition?

- The pattern of a definition is simple. It uses the simple subject (S) + verb (V) + clause structure.
- Besides, the definition of a term consists of its class and characteristics.
A laboratory is a place where experiments are performed.

<table>
<thead>
<tr>
<th>Subject</th>
<th>Verb</th>
<th>Relative Clause</th>
</tr>
</thead>
<tbody>
<tr>
<td>A laboratory</td>
<td>is</td>
<td>a place where experiments are performed.</td>
</tr>
<tr>
<td>Term</td>
<td>=</td>
<td>General Class Word Relative Pronoun Giving Specific Characteristics</td>
</tr>
</tbody>
</table>
Vertebrates are animals **that have a backbone**. Some examples are humans, frogs and snakes.

Invertebrates are animals **that do not have a backbone**. Some examples are bees, lobsters and snails.
Academic text-types: E.g., Explanations

c. Explain the changes in relative humidity and precipitation.
   Deforestation reduces the amount of water stored in soil and vegetation. As a result, water returned to the atmosphere through evapotranspiration is reduced. This leads to a drop in relative humidity and hence precipitation.

d. How may a large-scale tropical deforestation enhance global warming?
   Green plants are a carbon _________. As trees are mostly cleared by _________. a lot of _________. is released into the atmosphere.
Academic text-types: E.g., Classifications

A student is using a key to classify the above animals. Try to complete the key for him.

**Animals**
- without a backbone
  - with wings
    - Dragonfly
  - without wings
- with a backbone
  - with wings
    - Eagle
  - without wings
    - with scales
      - Crocodile
    - without scales
      - live in water
        - live on land
          - Elephant
      - live on land
        - Frog
      - live in water
        - Sea lion
### E.g., Comparing Similarities

<table>
<thead>
<tr>
<th>Subject</th>
<th>is + comparing words</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium</td>
<td>is similar to</td>
<td>aluminium.</td>
</tr>
<tr>
<td></td>
<td>comparable to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>as important as</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject</th>
<th>comparing verbs</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magnesium</td>
<td>resembles parallels</td>
<td>aluminium</td>
</tr>
<tr>
<td></td>
<td>in many ways.</td>
<td></td>
</tr>
</tbody>
</table>
E.g., Contrasting Differences

<table>
<thead>
<tr>
<th>Subject</th>
<th>is</th>
<th>+ contrasting words</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>is</td>
<td>unlike different from</td>
<td>aluminium.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>differs from</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contrasting phrases</th>
<th>Subject</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlike iron, In contrast to iron, Compared to iron, In comparison to iron</td>
<td>aluminium.</td>
<td>is light.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject</th>
<th>is + contrasting words</th>
<th>Object</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron</td>
<td>heavier than less abundant than not as soft as relatively comparatively</td>
<td>aluminium. soft metal.</td>
</tr>
</tbody>
</table>
Difficulty in Understanding Academic text-types

- Knowledge & linguistic structures in academic / science language
  - Highly complex and condensed structures for students to comprehend
  - E.g. An organ is a structure in an animal or a plant, which is composed of several different tissues grouped together to make a functional unit.

- The logic of academic or science language is different from the logic of our usual, everyday language: it has a high density of information units!

- ESL/EFL students will need a transition phase: e.g., from short, simple sentences to complex sentences, and then to extended paragraphs
Progression of Academic Language

**Junior secondary years**
- Acquiring basic technical vocabulary
- Reading and writing simple sentences
- Reading & writing simple academic text-types

**Senior secondary years**
- Acquiring more technical vocabulary
- More complex sentence structures
- More complicated academic text-types

**Tertiary years**
- More condensed sentence structures
- More complex academic passages
Rocks are generally classified by mineral and chemical composition, by the texture of the constituent particles and by the processes that formed them. These indicators separate rocks into igneous, sedimentary, and metamorphic. They are further classified according to particle size. The transformation of one rock type to another is described by the geological model called the rock cycle.

Igneous rocks are formed when molten magma cools and are divided into two main categories: plutonic rock and volcanic. Plutonic or intrusive rocks result when magma cools and crystallizes slowly within the Earth's crust (example granite), while volcanic or extrusive rocks result from magma reaching the surface either as lava or fragmental ejecta (examples pumice and basalt).

Sedimentary rocks are formed by deposition of either clastic sediments, organic matter, or chemical precipitates (evaporites), followed by compaction of the particulate matter and cementation during diagenesis...
### Common genres/text types in Science (Based on Wellington & Osborne, 2001, p. 52)

<table>
<thead>
<tr>
<th>Text types</th>
<th>Subject Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instruction</td>
<td>Preparation for a class practical</td>
</tr>
<tr>
<td>Classification</td>
<td>Solids, liquids and gases</td>
</tr>
<tr>
<td>Structure texts with diagram</td>
<td>Roots, cells, the Earth, teeth</td>
</tr>
<tr>
<td>Mechanism texts with diagram</td>
<td>Electric bell, aneroid barometer</td>
</tr>
<tr>
<td>Process texts</td>
<td>Rock formation, water cycle, digestion, the life of a star, distillation</td>
</tr>
<tr>
<td>Concept-principle</td>
<td>Electric current, Newton’s laws</td>
</tr>
<tr>
<td>Hypothesis-theory</td>
<td>Origin of life, big bang theory</td>
</tr>
</tbody>
</table>
### Common signal words for different text types (Adapted from Pasquarelli, 2006)

<table>
<thead>
<tr>
<th>Text types</th>
<th>Signal words</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Classification</strong></td>
<td>many, several, one, another, still another</td>
</tr>
<tr>
<td></td>
<td>one type, another type</td>
</tr>
<tr>
<td></td>
<td>also, among, in addition to</td>
</tr>
<tr>
<td><strong>Procedure</strong></td>
<td>first, second, third...</td>
</tr>
<tr>
<td></td>
<td>first, next, then, finally</td>
</tr>
<tr>
<td></td>
<td>steps, sequence, later, before, after, to begin</td>
</tr>
<tr>
<td><strong>Comparison / contrast</strong></td>
<td>compare, comparison, contrast</td>
</tr>
<tr>
<td></td>
<td>same, different, like, as</td>
</tr>
<tr>
<td></td>
<td>similarities, differences, similarly</td>
</tr>
<tr>
<td></td>
<td>but, also</td>
</tr>
<tr>
<td></td>
<td>on one hand, on the other hand</td>
</tr>
<tr>
<td><strong>Cause and effect</strong></td>
<td>cause(s), effect(s)</td>
</tr>
<tr>
<td></td>
<td>as a result of, results</td>
</tr>
<tr>
<td></td>
<td>affect of, consequence of, consequently, therefore</td>
</tr>
<tr>
<td></td>
<td>for this reason</td>
</tr>
<tr>
<td><strong>Problem / solution</strong></td>
<td>problem(s), issue(s)</td>
</tr>
<tr>
<td></td>
<td>solution(s), resolution(s), to resolve</td>
</tr>
</tbody>
</table>
What do students need for using English to “read across the curriculum”?

- **Skills and strategies**
  - Language skills and thinking skills

- **Content knowledge**

- **Vocabulary**
  - Field-specific technical vocabulary
  - General academic vocabulary
  - Signalling words

- **Language knowledge**
  - Text-types
  - Rhetorical functions
  - Sentence patterns / “skeleton”
In order to help students to write academic language, different kinds of language support are needed:

- **Context/ideas level**: graphic schemata, organizers, diagrams, tables, pictures, comic strips, etc.
- **Text level**: genres/text types (information structuring)
- **Sentence level**: grammar
- **Word level**: vocabulary
How can English teachers help students and content-subject teachers – roles and possibilities

- English teachers have a special role to play to help students tackle various types of texts so that their students can apply the strategies when reading textbooks of other subjects.
- Some possible teaching and collaboration ideas
- (1) Incorporating a variety of content-area topics
  - From familiar to less familiar
  - Familiar: social issues topics, newspaper articles, magazine articles
  - Less familiar: subject-specific texts from textbooks or other content reading resources
- (2) Explicit teaching of text structure and academic reading skills
  - Text type
  - Move analysis, e.g. moving from “Introduction” to “Body” of the text to “Conclusion”, or moving from topic sentence to comparing and contrast, similarities and differences etc.
  - Language features/characteristics for different content-subjects
  - Move specific sentence patterns
  - Different types of vocabulary: technical specific, general academic, signalling words
Summing up the key elements for the materials

1. Show how everyday language is different from texts commonly seen in subjects across the curriculum (Martin & Rose, 2008)
2. Reveal the typical, primary rhetorical functions and common language features used in texts of a specific subject (Johns, 1997)
3. Give students the opportunities to “re-textualize” (Martin & Rose 2008), e.g. Students transform back and forth between everyday language and texts in the discipline (e.g. recount, procedure, explain)
4. Show teachers how students’ reading experience with academic texts can be scaffolded through a number of techniques (e.g. as those described in Gibbons, 2009).
5. Helping students to construct and de-construct text and construct meaning from text
Importance of regarding English as a tool with which to acquire knowledge and as a medium to learn

Emphasize how individuals seek to bring a sense of meaning to their worlds

Develop in students a sense of competence, sense of achievement, locus of control, enjoyment
References

Professional Development Programme

Reading across the Curriculum
under the fine-tuned MOI arrangements

Session 4

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January 2012

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Part 1: Language Awareness

1. Modelling teacher talk in reading lessons – use examples of text
2. Collaboration & implementation issues of RAC / LAC

Part 2: Pedagogies and Strategies

Session 4

The Programme: Session 4
The causes of acid rain

Do you remember the air pollutants learnt in Unit 7? **Sulphur dioxide** and **nitrogen oxides** are two common air pollutants that cause acid rain. These **acidic gases** are mainly released from vehicles, power stations and factories. As industries develop and cities become densely populated, more fuels are burnt. As a result, more sulphur dioxide and nitrogen oxides are produced. When these gases dissolve in the rainwater, **sulphric acid** and **nitric acid** are formed respectively. They make the rainwater more acidic.

Source: Living Science (2nd edition) 2B, p. 29
Using Think-aloud Strategy and Graphic Organizer in Teaching Causes of Acid Rain

- How would you teach the causes of acid rain?
- Read the text in the Task Sheet.
- Possible while-reading activity:
  - Draw a flow chart to illustrate the causes of acid rain (by extracting the information from the passage in the textbook).
The causes of acid rain

Urbanization
- Increased Population
  - More vehicles
- Increased energy demand
  - More power stations
- Acidic gases
  (sulphur dioxide & nitrogen oxides)
  
  sulphur dioxide + oxygen + water → sulphuric acid
  nitrogen oxides + water → nitric acid

Industrialization
- Increased factories
  - More factories
- Increased energy demand

Formation of acid rain

Broad Social Context
Possible post-reading activity

- After co-constructing the graphic organizer, invite students to conduct a mini-presentation on the reading passage.
- Provide language scaffold to students, for example:
  - Presentation template
  - Language for doing presentation
    - Good morning. Today I’m going to talk about...
Explanations  
(Wellington, J. & Osborne, J., 2001)

- I want to explain why *(acid rain is common in urban cities)*...
- An important reason for why this happens is that...
- The next reason is that...
- Another reason is that...
- To conclude...

- There is a lot of discussion about whether *(nuclear energy should be more widely used)*...
- The people who agree with this idea claim that...
- They also argue that...
- A further point they make is...
- However, there are also strong arguments or evidence against this view. These are...
- Further they claim that...
Text: The Water Cycle – Analysing the text

In nature, water keeps changing between liquid water and water vapour. It goes round and round between the land, the sky and the sea. The way water circulates in nature is called the water cycle. The water cycle involves four main processes.

Evaporation: When the sun heats up the water in oceans, rivers and on land, the water absorbs heat energy and evaporates to become water vapour. Warm air rises and carries the water vapour up to the sky. The surrounding air flows in to replace the rising warm air. This forms a convection current.

Condensation: As the upper part of the sky is cooler, water vapour cools down and condenses to small water droplets. Water droplets join together to form clouds.

Transportation: Clouds may be carried to other places by wind.

Raining: The water droplets in the cloud gather and become heavy. The water droplets then fall to the ground as rain. Rainwater either becomes underground water or gathers in rivers and returns to the sea.

We have learnt how rain is formed in nature.
How to improve the teaching of this topic? E.g., How to improve this diagram to make the logic/process clearer to the student?
How to improve the teaching of this topic?

Suggestions:
1. Use sequential notes to help Ss follow the flow of the water cycle (e.g., 1, 2, 3...)

Source: [http://cnobleza.files.wordpress.com/2009/02/watercycle2.gif](http://cnobleza.files.wordpress.com/2009/02/watercycle2.gif)
How to improve the teaching of this topic?

1. Evaporation
2. Condensation
3. Raining

Suggestions:
(2) Use a graphic organizer to present the topic

The Ground / Water Surface
Task : Read the passage on “The Water Cycle” and do the following tasks

- Tasks to raise awareness of academic language
  - First, circle the technical terms in the text.
  - Second, find the sentences in the text that define these terms.
  - Third, find some useful academic words and underline them.
  - Then, highlight the signalling words, and discuss the function of each of these words.
- Can you identify words or sentences that e.g. define, describe, show cause and effect....?
- What is the text type for this piece of academic text?
- Encourage students to ‘retell’ the water cycle afterwards – speaking and writing (individual and/or group work).
Text: The Water Cycle

In nature, water keeps changing between liquid water and water vapour. It goes round and round between the land, the sky and the sea. The way water circulates in nature is called the water cycle. The water cycle involves four main processes.

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Transportation: Clouds may be carried to other places by wind.

Raining: The water droplets in the cloud gather and become heavy. The water droplets then fall to the ground as rain. Rainwater either becomes underground water or gathers in rivers and returns to the sea.

We have learnt how rain is formed in nature.
Text 1: The Water Cycle

In nature, water keeps changing between liquid water and water vapour. It goes round and round between the land, the sky and the sea. The way water circulates in nature is called the water cycle. The water cycle involves four main processes.

Evaporation: When the sun heats up the water in oceans, rivers and on land, the water absorbs heat energy and evaporates to become water vapour. Warm air rises and carries the water vapour up to the sky. The surrounding air flows in to replace the rising warm air. This forms a convection current.

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The Water Cycle

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We have learnt how rain is formed in nature.
The Water Cycle

In nature, water keeps changing between liquid water and water vapour. It goes round and round between the land, the sky and the sea. The way water circulates in nature is called the water cycle. The water cycle involves four main processes.

Evaporation: When the sun heats up the water in oceans, rivers and on land, the water absorbs heat energy and evaporates to become water vapour. Warm air rises and carries the water vapour up to the sky. The surrounding air flows in to replace the rising warm air. This forms a convection current.

Condensation: As the upper part of the sky is cooler, water vapour cools down and condenses to small water droplets. Water droplets join together to form clouds.

Transportation: Clouds may be carried to other places by wind.

Raining: The water droplets in the cloud gather and become heavy. The water droplets then fall to the ground as rain. Rainwater either becomes underground water or gathers in rivers and returns to the sea.

We have learnt how rain is formed in nature.
School textbooks in Hong Kong

- Features of the language in English academic or science textbooks in Hong Kong
  - Mostly “point-form-in-paragraph”
  - Little connected discourse
  - Few authentic science genres (i.e., text types)
  - Look like teaching notes
  - Offer few models of extended writing for students to learn how to answer short essay questions (e.g., in future public exams)
A Report on Schools in the US
- Introduction
- Education System
- Student-teacher ratio
- School uniforms
- Extra-curricular activities
- Conclusion
In groups, discuss

- What text type
- What graphic representation of information
- What rhetorical functions of various sentences/paragraphs
- What academic vocabulary
- What critical higher-order thinking questions

- What about general activities that focus on academic language? Give examples.
  - Pre-reading activities
  - While-reading activities
  - Post-reading activities
Possible pre-reading activities

- Motivating and setting purposes for reading
- Activating and building background knowledge
- Building text-specific knowledge
  - E.g. outlines and graphic organizers for expository text, giving a preview
- Relating the reading to students’ lives
- Pre-teaching vocabulary and concepts
- Pre-questioning, predicting, and direction setting
- Suggestion comprehension strategies
  - E.g. using prior knowledge, asking and answering questions, creating mental images, and monitoring comprehension
Possible while-reading activities

- Silent reading
- Reading to students
- Oral reading by students
  - E.g. Readers’ theatre, buddy reading
- Guided reading
  - E.g. informal writing that elicits personal responses, such as journaling or writing letters, reading with a partner and pausing to reflect out loud, using reading guides (e.g. answering questions, completing charts or outlines etc).
- Modifying the text
Possible post-reading activities

- Questioning
- Discussion
- Writing
- Drama
- Artistic and nonverbal activities
- Application and outreach
- Reteaching

The Teaching and Learning Cycle (Adapted from Rothery, 1996)

- **Preparation:** Setting the context
- **Modelling Deconstruction:** Teachers show how to read and analyze the text
- **Joint Construction:** Teachers guide students to write the text together
- **Independent Construction:** Students write the text independently
- **Content Language Genres & Registers**
Collaboration between English Department and Content Subject Department(s) at School

- **academic science language**
  - support
  - support
  - support

- **simplified science language**
  - support

- **everyday language + visual schemata**
  - support

Support from content subject teachers on subject content & logic

Support from lang. teachers on the lang. for science, maths etc.
Collaboration between English teachers and Subject Content teachers

Collaboration is needed among

- School teachers – language & subject content teachers
- Science / content educators + language experts
- Various school personnel, e.g. the principal & academic/admin. staff to set school lang. policy

Decide what to teach and the priorities

Language teachers can teach language common to academic subjects, e.g. root words, use of the passive voice, function words and meanings, action words such as "describe, define, identify, discuss, analyse, interpret, compare and contrast, summarize, construct, verify, hypothesize, evaluate" etc. Concepts such as cause & effect, problem & solution, comparison and contrast etc. and how to express them.

Let English teachers know how they can help. The lang. teacher’s role is not to pre-teach the content, but students will need a lot of repetition, recycling and clarification of concepts and language to grasp meaning.

Across-curriculum reading is essential for learning to familiarize students with different text types and academic functions in English - less frequent vocabulary, complex syntax, and abstract expressions are found primarily in written text.
Construction and Deconstruction of Text

- Modelling deconstruction – teachers show how to analyse the text
- Joint construction – teachers guide students to write the text together
- Independent construction – students write the text independently
Suggestions to teachers

- Diagram-based (use graphic organizers, visual diagrams, tables and charts to present content first), then have students write out in sentences and paragraphs
- Keyword and key phrase approach
- Point-form approach
- Continuous text – essay approach
- Topic/Theme-based
- Daily-life related topics
e.g., food pyramid, digestion
- Cross-subject mini-projects
e.g., global warming (English + Science)
Co-planning

- Co-planning between Content Subject teachers and Language teachers
  - Content Subject teachers identify the targeted genres/text types in their science materials and texts
  - Language teachers support content teachers to teach the genres or language features based on the subject content, e.g. procedural text, cause and effect, comparison and contrast etc.
  - The first step of co-planning - to have input and support from both language and content subject teachers

- Scaffolding in teaching of language / language demand of tasks
  - Topic ➔ Reading passages ➔ Scaffolding ➔ Task
  - Read ➔ Answer ➔ Produce (e.g. S3 food pyramid and suggestions for a balanced diet)
Identifying academic language features: vocabulary and sentence levels

<table>
<thead>
<tr>
<th>Hearing</th>
<th>Smelling</th>
<th>Touching</th>
<th>Seeing</th>
<th>Tasting</th>
</tr>
</thead>
<tbody>
<tr>
<td>loud, soft, quiet, noisy, raspy, high/low-pitched, rumbling.</td>
<td>odors, bad, good, sweaty.</td>
<td>hard, soft</td>
<td>bright, twinkling.</td>
<td>sweet, sour, bitter, gooey, salty, syrupy, lemony, tart.</td>
</tr>
</tbody>
</table>

English teacher helping to teach vocabulary related to the 5 senses and writing observations
Identifying academic language features: sentence and text levels

(by courtesy of Mr Kayson Kan, Munsang College)

English teacher helping to teach lab reporting skills
Collaboration in other areas

**Administrative**
- Allow time and opportunity for discussion and meetings between language and subject content teachers – academic exchange important
- Peer classroom observations
- Sharing of texts & materials – what language is involved? Any common areas, themes, topics?

**Curriculum**
- Joint / separate training for language and subject content teachers
- Co-planning and/or co-teaching
- Teacher exchanges for sharing of good practices
- Bridging work for students – e.g. summer bridging programmes or camps. What to focus?
2 & 3. Reading and Writing Across the Curriculum: A School-University Seed Project

Collaboration among language and subject teachers
Need for bridging and scaffolding that involves

- Plentiful Exposure to Academic Language –
- Framing of Concepts and Ideas in the content areas e.g. science, mathematics
- Comprehensible Input (large amounts of time for actual text reading needed) and a variety of input resources
- Output - whether reading or writing or speaking: final product in English. Integration of the 4 skills
- Expressing meaning in English – more than just filling in blanks of single words, phrases or simple sentences. Need to go beyond discrete language items of pronunciation, grammar and spelling. Go for the expression of meaning and concepts
Distinguish between *learning English as a subject* and *using English as a medium of instruction*

- maximize quantity & quality of English input, academic input and output
- increase English language exposure for students
- provide purposeful use of the language in the classroom
- receptive and productive processing of content important
- no language without content (content here refers to the use of subject matter for second/foreign language teaching purposes)
- all teachers are in a way, “language” teachers in EMI education
- develop an English-rich environment in school where all are striving towards the same goal – provide varied learning experiences, extended learning activities for speaking, listening, reading & writing
Supporting LAC

- A clear language policy in school for language and subject content teachers - leadership roles
- Proficiency of teachers - provide good-quality input and be good role models
- Provide a language-rich environment - improve *quality* and *quantity* of *input* and *output*
- Promote interaction in the classroom using English
- Teacher’s good use of the language of explanation, exemplification, elicitation, interaction etc.
- Content-based teaching entails systematic planning of integrated instruction using a rich repertoire of strategies and techniques
- Develop support measures for students and introduce strategies e.g. develop vocabulary or dictionary skills etc.
- All stakeholders to share a common vision
1. Language & Content Awareness / 2. Pedagogies & Strategies

- Reading and writing across the curriculum: accessing prior knowledge
- Reading and writing for everyday life and seeing how that is different from reading and writing for school subjects
- Understanding genres and discipline-specific text types
- Understanding the academic functions of scientific texts
- Dealing with the use of vocabulary in academic texts
- Using language to express meaning and concepts

To teach or not to teach English? To use or not to use Chinese?
Summarizing what students need for LAC

- **Skills and strategies**
  - Language skills and thinking skills
- **Content knowledge**
  - of science, humanities, mathematics etc.
- **Vocabulary**
  - Field-specific technical vocabulary
  - General academic vocabulary
  - Signalling words
- **Language knowledge**
  - Text-types
  - Rhetorical functions
  - Sentence patterns / “skeleton”
Helpful Hints

- Learning words in a glossary is not necessarily always helpful (as words need to be learnt in context)
- Sharing subject content texts with English Teachers is helpful
- Theme-based suggestions
- Learning in context

Curriculum Context

- Academic functions
- Academic vocabulary
- Sentence patterns
Teach for transfer across languages

Types of Transfer

- Of conceptual elements (e.g. understanding the concept of *photosynthesis*)
- Of metalinguistic strategies (e.g. strategies of visualizing, use of graphic organizers, vocabulary acquisition strategies, etc.)
- Of specific linguistic elements (e.g. the meaning of *photo* in *photosynthesis*)
- Of phonological awareness – that words are composed of distinct sounds
- Of pragmatic aspects of language use (e.g. take risks in communication, use of gestures to aid communication etc.)
For the Teacher

- Language of Explanation
- Language of Exemplification
- Language of Interaction
- Language of Elicitation
- Language of Instruction
Successful Factors for Effective Academic Learning

- High quality teaching, including clear lesson organisation, directions and explanations, appropriate aids, attention to higher level skills, and opportunities for productive oral & writing activities
- High quality instructional language, including clarity, coherence, use of contexts, paraphrasing, responding to student feedback, and discussion of content, vocabulary and grammar
- Effective classroom management with stress on academic rather than on non-academic activities
- Provision of equal opportunities for the practice of English – OUTPUT, whether spoken or written, should be in English, e.g. oral presentations that involve expressions of meaning, written texts based on graphic information, summarizing texts, using different text types etc.
Useful EDB resources

A. Curriculum guides
1. CDC English Language Curriculum Guide (Primary 1-6) 2004

2. CDC English Language Education Key Learning Area Curriculum Guide (P1 - S3) 2002

3. CDC-HKEAA English Language Curriculum and Assessment Guide (Secondary 4 - 6) 2007

4. CDC Syllabus for English Language (Secondary 1 - 5) 1999

B. MOI Documents
5. Booklet on Fine-tuning of Medium of Instruction for Secondary Schools (February 2010)

Useful reference books

Useful Internet resources

- Language Across the Curriculum #1 (http://www.language.brown.edu/lac/)
- Language Across the Curriculum #2 (http://languagesacrossthecurriculum.com/)
- CLIL glossary (http://www.cambridgeesol.org/assets/pdf/resources/teacher/clil_glossary.pdf)
- Reading to learn (http://www.readingtolearn.com.au/)
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