

EDB PDP on Grammar as Choice:
Optimising Senior Secondary English
Language Series:
The Role of Grammar and Vocabulary
in Academic Reading and Writing

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Outcomes of the Workshop

By the end of this workshop, we'll have...

- reflected on [academic language](#) and the teaching of it
- identified grammar and vocabulary features in academic reading and writing
- discussed relevance of academic grammar and vocabulary to English language KLA
- explored strategies for building academic grammar and vocabulary
- brainstormed ideas on enhancing students' reading and writing skills through developing their awareness of academic grammar and vocabulary

English Language Education Key Learning Area

English Language Curriculum and Assessment Guide (Secondary 4 - 6)

Jointly prepared by the Curriculum Development Council and
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HKSARG

2021

Effective from Secondary 4 in the 2021/22 school year

- Promote a habit of reading and the academic use of English to equip students with essential language knowledge and skills to cope with the language demands from other subjects using English as the medium of instruction and prepare them for further studies/higher education.

(CDC and HKEAA, 2021, p.3)



Reflection on (Teaching) Academic Language

Warm-up Task:

- Let's get into groups.
- Discuss the following questions in any order you prefer:
 - What is academic language?
 - Have you covered academic language in your English lessons?
If yes, why, what and how?
 - What can be the challenges for us English language teachers to cover academic language in our lessons?
 - What are your expectations of this workshop?
- Be ready to share your ideas with the rest of us.

Part 1: Grammar and Vocabulary for Academic Reading

Task 1:

- Let's return to our groups.
- Refer to the task sheet. Read the academic language examples in Table 1. Categorise the examples according to the grammar or vocabulary features identified in Table 2. Each group will be responsible for one particular feature.
- Identify the KLA and/or subject from which each example is extracted.
- Identify the meaning function(s) of the feature in the content subjects. You may find the suggestions in Table 3 helpful.

Grammar/ Vocabulary Feature	Examples	Subjects/KLAs	Function(s) of the feature in Academic English
1. Technical terms / Subject-specific terminology	C I	PSHE Science	5. To denote the key concepts in a particular topic

Grammar/ Vocabulary Feature	Examples	Subjects/KLAs	Function(s) of the feature in Academic English
2. Complex noun phrases	B D E F K	Science PSHE Science PSHE Mathematics	1. To describe key concepts, the changes to them and/or relationships among them

Grammar/ Vocabulary Feature	Examples	Subjects/KLAs	Function(s) of the feature in Academic English
3. Modal verbs	G L N	Science PSHE PSHE	2. To suggest solutions to identified problems; 4. To suggest hypothetical situations

Grammar/ Vocabulary Feature	Examples	Subjects/KLAs	Function(s) of the feature in Academic English
4. Conditionals	A O	Science Mathematics	3. To describe conditions for conducting certain operations; 8. To state casual relationships

Grammar/ Vocabulary Feature	Examples	Subjects/KLAs	Function(s) of the feature in Academic English
5. Passive voice	H J Q P	Mathematics Science Science PSHE	6. To look and sound scientific/objective; 9. To suggest actions of which the doers are obvious

Grammar/ Vocabulary Feature	Examples	Subjects/KLAs	Function(s) of the feature in Academic English
6. Relative clauses	M R S	Science Science PSHE	7. To give definitions

Exploration of Features of Academic Language

Task 1 Follow-up Reflection:

- To what extent are the grammar and vocabulary features identified in Task 1 relevant to and therefore covered in our English language curriculum?
- To what extent does the way we teach these features prepare our students to comprehend and produce examples in real English use?
 - Take noun phrases as an example. How many words are there in the noun phrases we usually expose our students to?
 - Take relative clauses as another example. How do we teach our students to differentiate between defining and non-defining clauses?

Is it important for our students to master these language features as far as their English learning is concerned?



Complex Noun Phrases in Content Subjects: Let's study Example K above further:

John's walking speed is 2.3 km/s. If this measured value has a percentage error of 2%, write down **one possible actual walking speed satisfying this requirement.**

(Wong, T. W. and M. S. Wong (2009) *New Century Mathematics 2A*, p. 36)



Relevance of Academic Language to English language KLA

Task 2

- Read the two texts from the 2021 HKDSE Reading Paper on the task-sheet.
- In your group identify any examples of the grammar or vocabulary feature of academic language that you were responsible for in Task 1. Jot down those examples in Table 5.
- Determine the extent to which those examples resemble those that we typically use to teach grammar and vocabulary, e.g. Do the conditional sentences in the texts conform to the four types in our English grammar books?

Examples of Academic Language in English language KLA

Feature:	1. Technical terms / Subject-specific terminology
Examples from Text 1	Multinational; food poisoning; food processing; processed-food companies/industry's major players; artificial preservatives; changing consumer landscape
Examples from Text 2	terraforming; ethical endeavours; biological/human contamination; terrestrial life forms; ecological disaster; intervention; planetary park system; microorganisms; endemic ecosystems; microbial life; landscapes

Examples of Academic Language in English language KLA

Feature:	2. Complex noun phrases
Examples from Text 1	multinational packaged-food companies; soft drinks containing artificial colors and flavors; a growing consumer class that has some of the world's biggest and best-known food companies scrambling to change their businesses
Examples from Text 2	The ever-increasing scope of our space exploration efforts; the larger question of whether it is ethically responsible to...; how we can create havens for nature...; our ethical obligations to...; the ethical obligations we have...

Examples of Academic Language in English language KLA

Feature:	3. Modal verbs
Examples from Text 1	Can these food giants...; may even belong to...
Examples from Text 2	cannot simply land...; we can create...; human exploration would alter...; a planetary park system that would bar...; microorganisms can be spread ; it may help...; can damage...; it would be wise to consider ...

Examples of Academic Language in English language KLA

Feature:	4. Conditionals
Examples from Text 1	If any of these terms raised..., you may be part of...; Lest you think..., consider this:...
Examples from Text 2	If life is present..., the introduction... would be...; While we grapple with..., it would be wise to...; Even if these ecosystems are composed of..., our ethical obligations must be taken seriously; Life independent of Earth deserves...even if they are not home to any life

Examples of Academic Language in English language KLA

Feature:	5. Passive voice
Examples from Text 1	
Examples from Text 2	Human beings have been captivated by...; nature were left to her own devices ; microorganisms can be spread...;

Examples of Academic Language in English language KLA

Feature:	6. Relative clauses
Examples from Text 1	(a growing consumer class) that has some of the world's...; (the processed food itself) that's making us unhealthy; (the convenience) that food processing offers...
Examples from Text 2	(levels) that would not have happened if...; (your point) that human exploration would alter...; (a planetary park system) that would bar the landing of spacecraft...; (the idea) that natural world and other living creatures...; (havens for nature,) where we maintain the flora and fauna at levels...

Relevance of Academic Language to English language KLA

Task 2 Debriefing

- Are there any pedagogic implications that we can draw from Task 2?
- Exploring the interface between grammar, vocabulary and the four macro skills
- Re-orienting our approach to teaching grammar and vocabulary
 - Using content subject topics when presenting examples to teach grammar structures?
 - Focusing on word parts (prefix-root-suffix) when teaching vocabulary?
- Integrating authentic or even textbook texts covering topics in other KLAs into our lessons, i.e. **exposure + explicit instruction**

Relevance of Academic Language to English language KLA

Task 2 Debriefing

- Strategic integration of academic grammar and vocabulary in reading tasks
- E.g. Read Text 2 again and answer the following questions:
 - Give a phrase from Text 2 which suggests human's space exploration is at the largest scale at present.
 - 'ever increasing scope of our space exploration effort' (line 5)
 - How certain is Prof. Lee about the existence of life in planets other than earth?
 - 'If life is present,...would be...' (lines 6-7), 'the possibility that life exists...' (lines 7-8)
 - According to Prof. Cheung, what would happen if there was no national park service in the US?
 - 'wild life would not have been maintained' (line 15)
 - What can be a possible channel for the spread of microorganisms across the planets?
 - '...by dust storms' (line 16)

Part 2 :Grammar and Vocabulary for Academic Writing

Task 3

- Study one of the two 2021 HKDSE Writing questions in your group (Text 3 of the task sheet): Groups 1, 3, 5: Question 2; Groups 2, 4, 6: Question 3.
- Discuss how the academic grammar and vocabulary features identified above can help our senior secondary students write better essays, e.g. passive/conditionals can be used in answering Q2/Q3 for...
- Also think about how we can best introduce these language recommendations to our students?

Grammar and Vocabulary for Academic Writing

Tasks 3 Debriefing

- Academic grammar and vocabulary would not only enhance the ‘range’ and ‘accuracy’ in the language criterion, but also ‘organisation’ (e.g. through lexical cohesion) as required in the HKDSE English Language Writing Marking Scheme
- Features to be highlighted may include **set phrases and expressions** (e.g. ‘it would be wise to consider...’)
- Possible pedagogic approach highlighting academic grammar and vocabulary features: **awareness-raising activities** in which students compare and contrast two essays with and without examples of such features for their effectiveness in communicating meanings and achieving the targeted purposes

Grammar and Vocabulary for Academic Writing

Task 4

- Study the two HKDSE Biology and History essay-type questions (Text 4 of the task-sheet).
- Compare them with those in the English Language Writing paper. Do they present similar or different grammar and vocabulary challenges to our students?
- How can we help our students overcome these challenges in their EMI content subject learning?

Grammar and Vocabulary for Academic Writing

Tasks 4 Debriefing

- Essays in content subjects often show a higher demand in content organisation and signposting (e.g. **extensive use of subject-specific vocabulary** is often required in the marking schemes of the content subject essay tasks in HKDSE)
- Analysing and understanding specific content and language demands of essay-type/data-based questions in content subject HKDSE papers, and the grammar and vocabulary items required to meet those demands may be beneficial (cf. samples of Level 5 candidates' performance on the HKEAA website)
- Reflecting on the above process helps devise strategies to enhance our students' writing performance in both English and content subjects

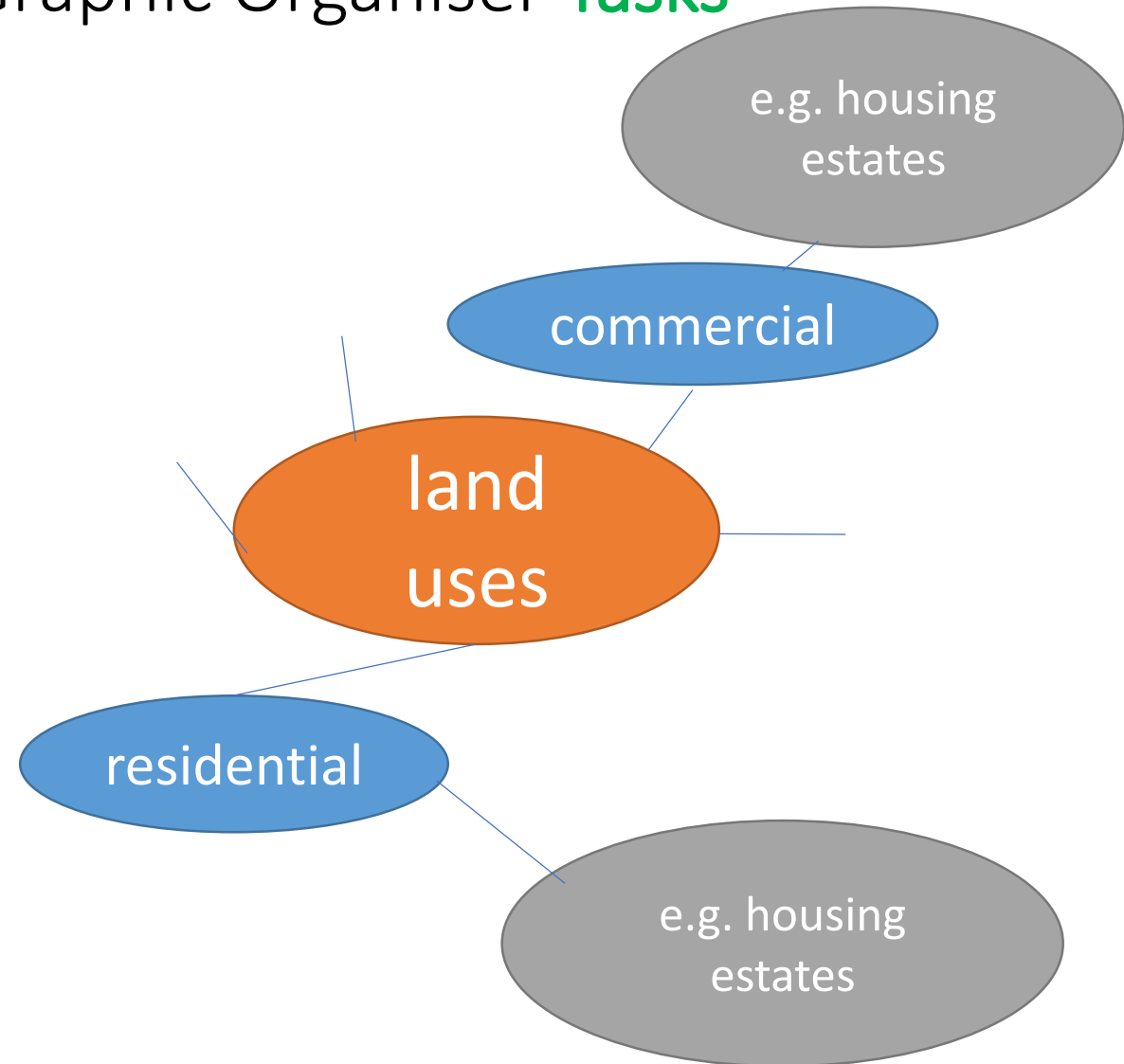
Part 3: Strategies for Building Academic Grammar and Vocabulary

1. Academic Vocabulary Building with Graphic Organiser **Tasks** (e.g. mind maps)

- (1) Organising vocabulary in the same lexical fields
- (2) Completing/developing mind maps
- (3) How do we develop our students' skills in using mind maps and other graphic organisers?

Tips:

1. Engage the students with academic vocabulary in the context of reading tasks
2. Don't push our students to produce graphic organisers too early. Scaffold them!



Integration of Academic Vocabulary in Reading Tasks by means of Graphic Organisers

Example: 2021 HKDSE Reading B2

Text 7

Title: _____

1 [1] The National Aeronautics and Space Administration (NASA) has discovered hints of a warmer past on Mars, possibly, one in which water has flowed and life might have existed. With evidence showing that water exists in a frozen state on Mars, the human race could one day make Mars its second home. To do that, we would begin with altering the current climate and atmosphere to resemble that of Earth's. The process of transforming the
5 Martian atmosphere to create a more habitable living environment is called terraforming.

[2] Terraforming Mars would be a huge undertaking with the initial stages alone taking several centuries, and the whole process of terraforming needing several millennia to complete; a brief interval, considering that Earth needed billions of years to transform into a planet on which plants and animals could flourish. To transform the Martian landscape into one that resembles Earth would require unrelenting scientific ingenuity and enormous capital expenditure.
10

[3] Terraforming Mars would require three interrelated processes: building the atmosphere, increasing and maintaining temperature suitable for life, and preserving the atmosphere. The atmosphere of Mars is very thin, and temperatures there range from -113 °C to 0°C, and most of the carbon dioxide is trapped as ice at the poles. Considering these factors and challenges, physicists and engineers have been researching various terraforming methods, and encountered practical difficulties with each method investigated.
15

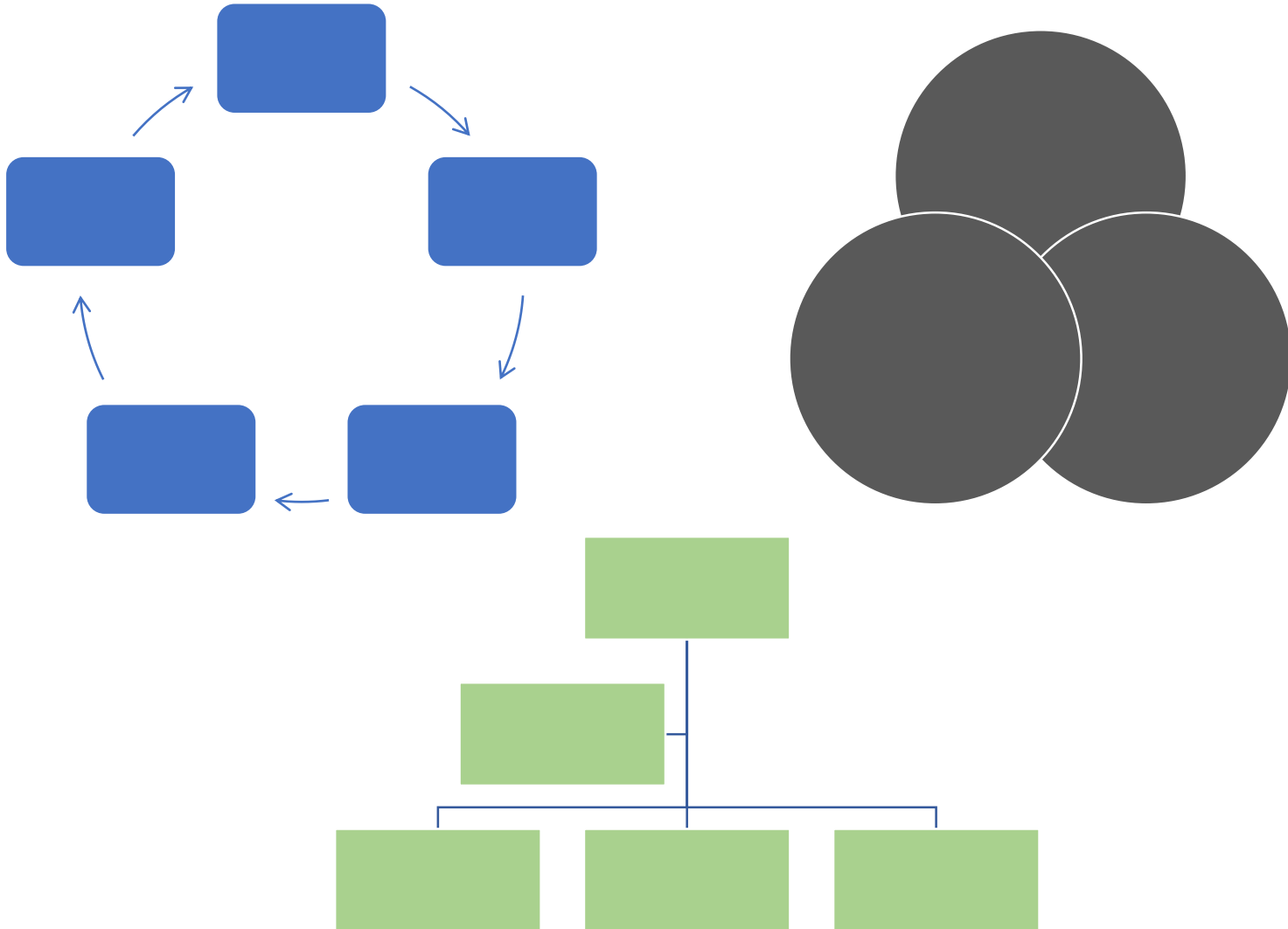
[4] One option for thickening the atmosphere of Mars and raising the temperature of the planet would be to set up solar-powered, greenhouse-gas producing machines. Their sole purpose would be to emit carbon dioxide and other greenhouse gases into the atmosphere. These greenhouse-gas machines would either have to be ferried to Mars or made out of materials already located on the planet. In order to transport these machines to Mars, they would have to be lightweight. As the atmosphere warms because of the greenhouse gases, a different type of greenhouse-gas machine would be needed to mimic the natural process of plant photosynthesis, absorbing carbon dioxide and emitting oxygen. Photosynthetic bacteria and algae could also be used alongside these oxygenated to the point that Mars' inhabitants would need only a breathing-assistance apparatus, not a pressure suit as worn by astronauts.
20
25

57. Complete the following flow chart on terraforming Mars based on information from paragraph 4. (8 marks)

DEVELOPMENT OF TERRAFORMING INFRASTRUCTURE	
Terraforming machines will need to be set up on Mars in one of two ways: Option 1: (i) _____ Option 2: (ii) _____	Both will need the same energy source: (iii) _____ _____
↓	
Machine Type 1: Purpose: (iv) _____	
↓ ↓	
Machine Type 2: Purpose: (v) _____ _____	Additional method: (vi) _____ _____
↓	
Desired Environmental Conditions on Mars:	(vii) _____ (viii) _____

- How about presenting some ill-formed graphic organisers to students and asking them to modify them?
- How about presenting several graphic organisers and asking students to pick the one that best summarises the reading text?

Other possible forms of vocabulary building graphic organisers:



For other academic vocabulary building strategies, please refer to the PPT slides of our other PDP on cross-curricular vocabulary 😊

2. Sentence-making tables

Helping students match common **meaning functions** with appropriate **sentence patterns** (cf. Task 1 above)

→ progressing from word to sentence or even text level

Explaining		
Main clause,	connectives	subordinate clause
The candle goes out	because	the oxygen in the gas jar is used up.

Presenting Conditions		(serving the function of explanation)
Conditional/ If clause, (indicating the cause/ condition)	Main clause (indicating the result/consequence)	
If there is too much cholesterol in the blood,	it may deposit on the inner wall of the blood vessels.	

Classifying

General noun (a class)	Verb phrase (adverbs)	Number	Nouns (referring to groups)
The food substances	are (normally) classified into	seven	types.

Exemplifying

Name of the example	Verb phrase (adverbs)	Noun	General noun (the group that it belongs)
Vinegar	is	an example	of food preservatives.

Can you suggest a sentence-making table for 'Defining'?

A is B which C.

Defining

Specific term	is/ means/ refers to ...	General noun (a class)	Defining relative clause
Ingestion	is	the process	which takes food into the alimentary canal through our mouth.

Also A is B.
B is called A.
A refers to B.
...

Focus should be put on the **range** of sentence patterns to fulfill the **meaning functions** in reading and writing **texts**.

3. Detailed Reading

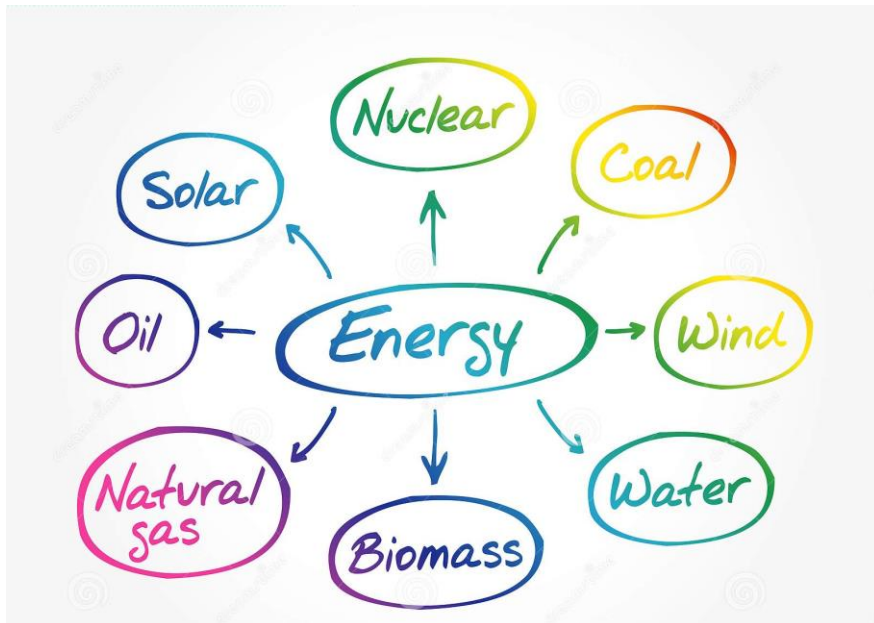
- Providing contextualised explanation on **academic vocabulary (with the contextual clues given)**
- Highlighting the **grammar patterns** with the meaning functions they typically serve in context
- Identifying **connection between ideas** across different parts of the text
- Space for **open inquiry** (vs closed questions in traditional reading comprehension exercises) for motivational purpose
- **Higher order reading** (i.e. reading between the lines, identifying semantic and syntactic clues for inferencing/interpreting etc.)
- **Problem solving** through identifying contextual clues for determining implicit meanings (e.g. the writer's attitude)

4. Reading Multimodal Authentic Texts

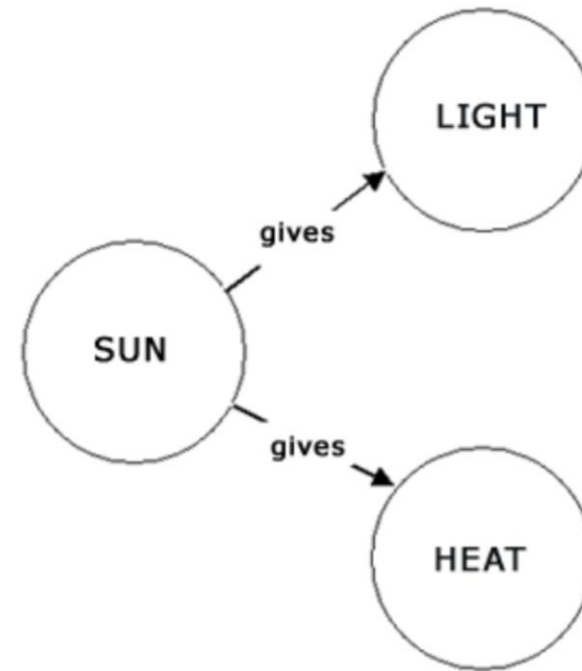
5. Scaffolding Academic Writing Tasks using Concept Maps

1. What is a concept map?

Task 5: Which of the following is a mind map and which is a concept map? What are the differences between the two?



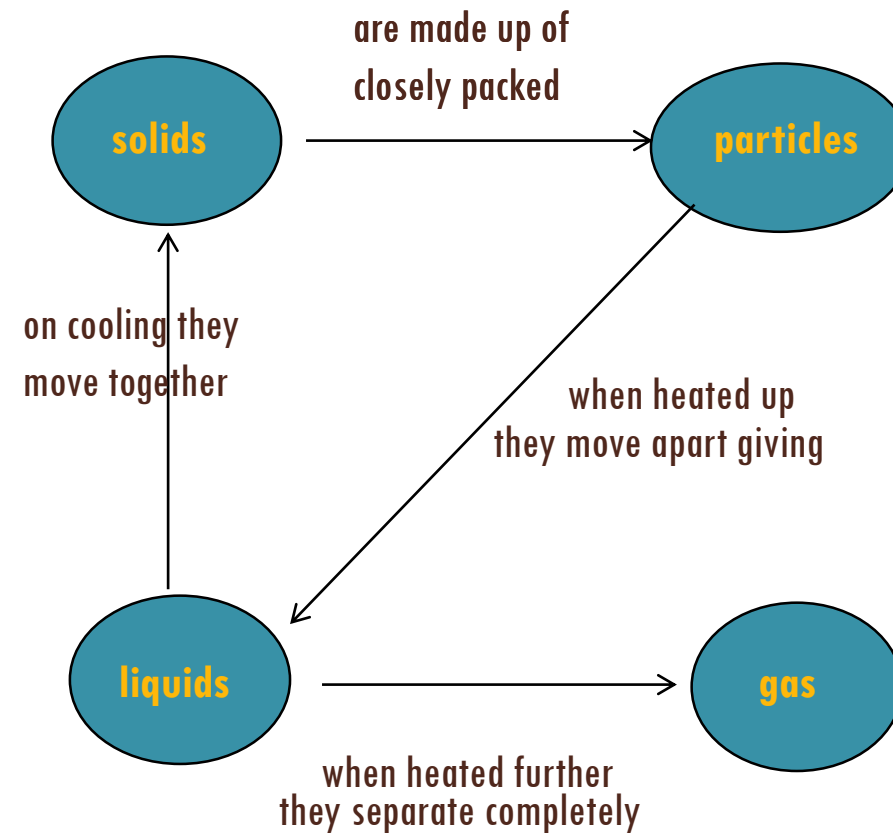
<https://thumbs.dreamstime.com/z/energy-mind-map-flow-chart-energy-mind-map-flow-chart-types-energy-generation-200192435.jpg>



https://www.researchgate.net/figure/Another-example-of-a-simple-concept-map_fig4_26444585

Concept Mapping

- a *schematic device* representing:
 - the key concepts/ideas in a topic
 - the *specific inter-relationships* among them
- It consists of
 - ‘ITEMS’,
 - ‘CONNECTORS’ and
 - ‘PROPOSITIONS’

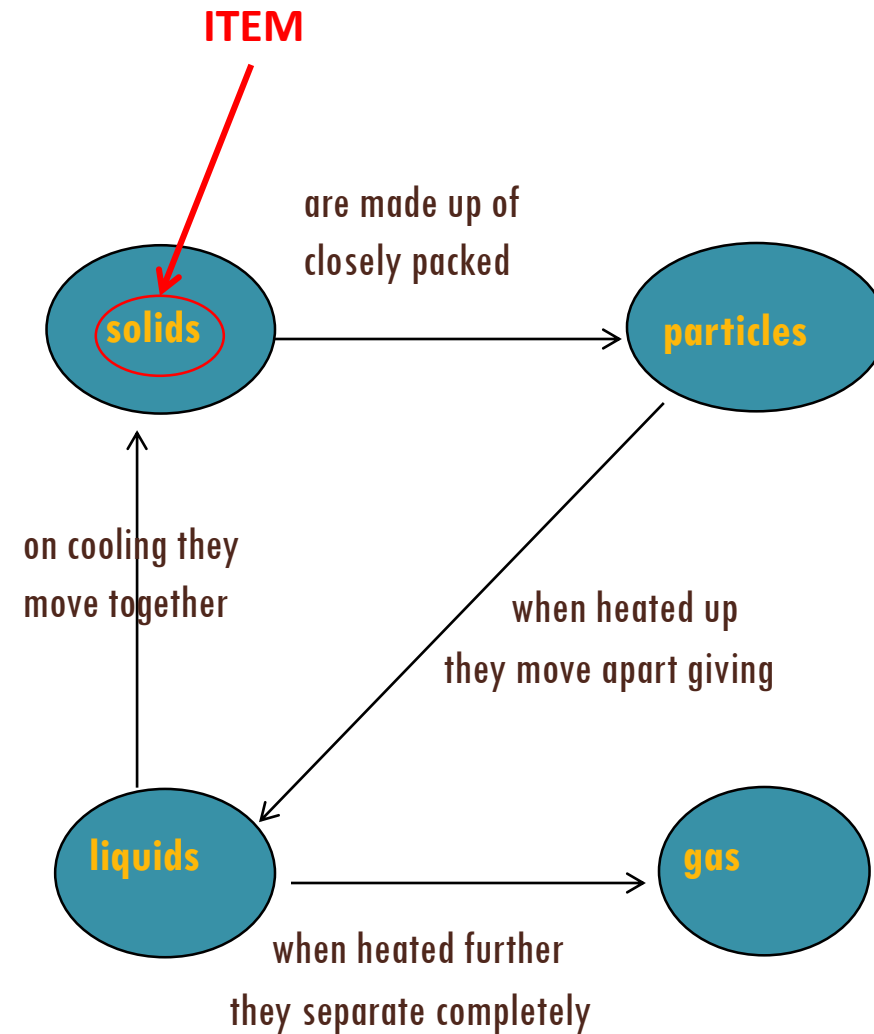


Concept Mapping

1. Items:

- These are objects, ideas, places events, processes, and activities.
- Item names are placed in boxes in the concept map.

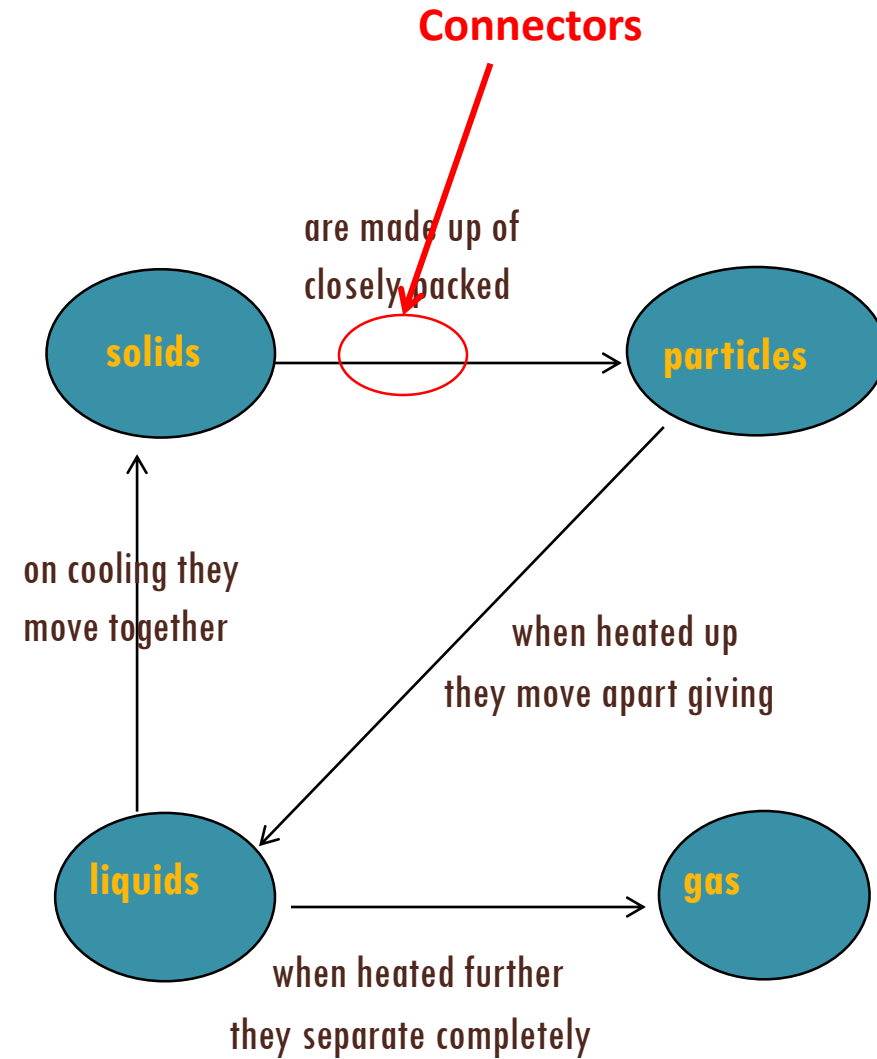
In practice, items are the academic vocabulary items we want our students to connect in their writing.



Concept Mapping

2. Connectors

- Connectors are lines that join items, indicating which ones are related or linked and how they are linked.



Concept Mapping

Different kinds of connectors:

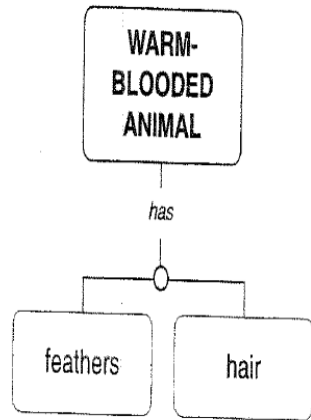


Figure 9. The circle symbol represents "or"

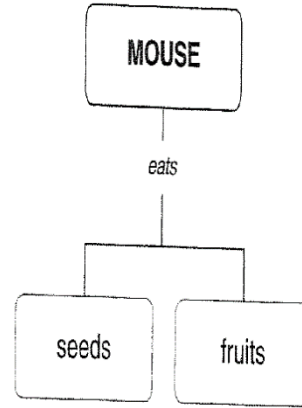


Figure 7. A "fork" connector

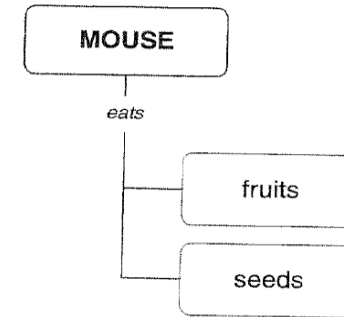
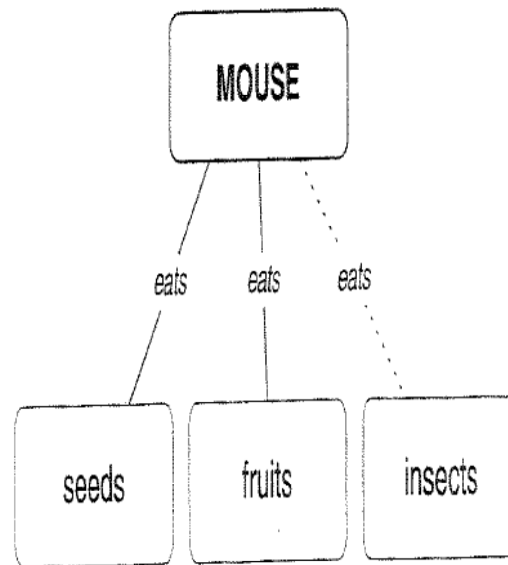
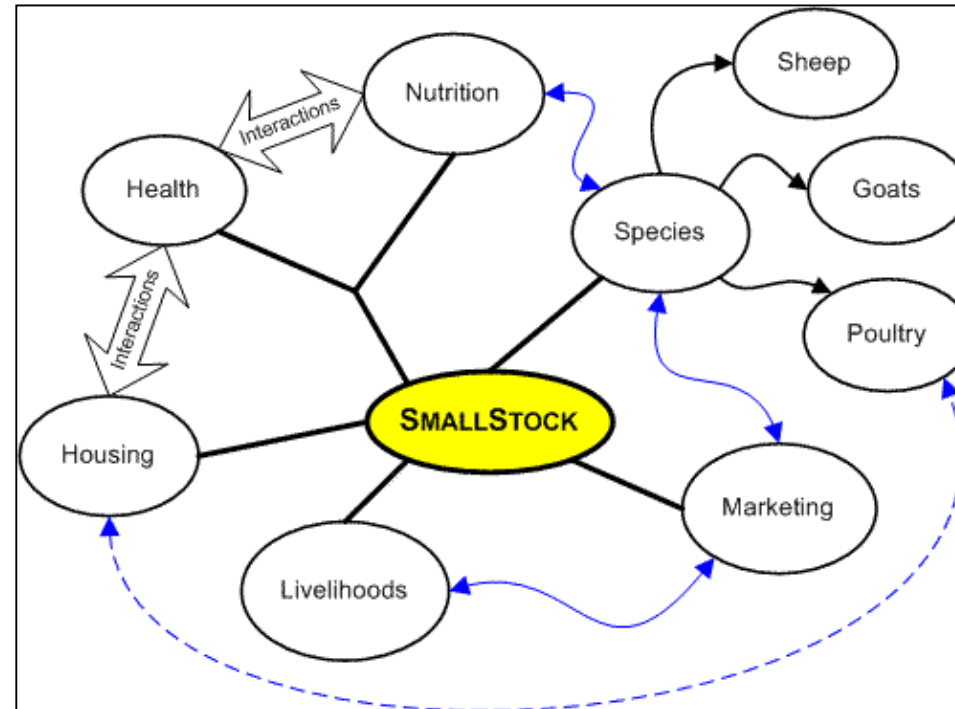


Figure 8. A "flag" connector



Concept Mapping

An important characteristic of concept maps is the inclusion of 'cross-links' as connectors.



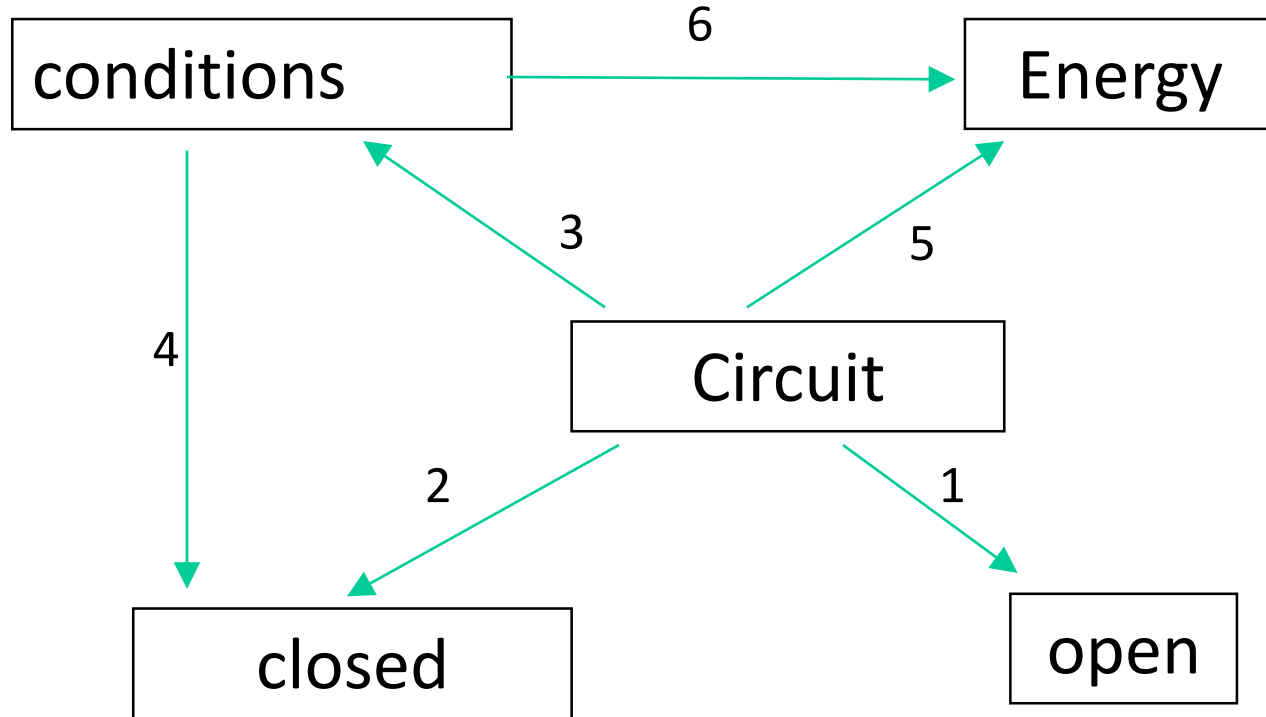
Concept Mapping

3. Propositions

- **Statements** which explain the specific inter-relationship between two or more concepts
- **Arrows** showing the direction of the linking statement
- e.g. grass $\xrightarrow{\textit{is}}$ green
- e.g. lightning $\xrightarrow{\textit{is followed by}}$ thunder

Concept Mapping

Task Example 1: Simple Concept Map of a 'Circuit'



Concept Mapping

Core task for less competent students: Fill in the blanks



Is this already a well-formed text?

1. An incomplete circuit is called an open circuit.
2. A circuit with a complete path is called a closed circuit.
3. For current to flow in a circuit, two conditions are necessary.
4. One of the conditions is that the circuit should be a closed circuit.
5. When the circuit is closed, chemical energy stored in the cell is changed to electrical energy as current flows.
6. Another condition is that the circuit has a source of electrical energy.

Concept Mapping

Extended task for more competent students

Fill in as many of the spaces as you can, but do not worry if you cannot complete them all.

'Sentence-making Tables' can come into play!

1. An incomplete _____ is called an _____ circuit.

2. A _____ with a complete path is called a _____ circuit.

3.

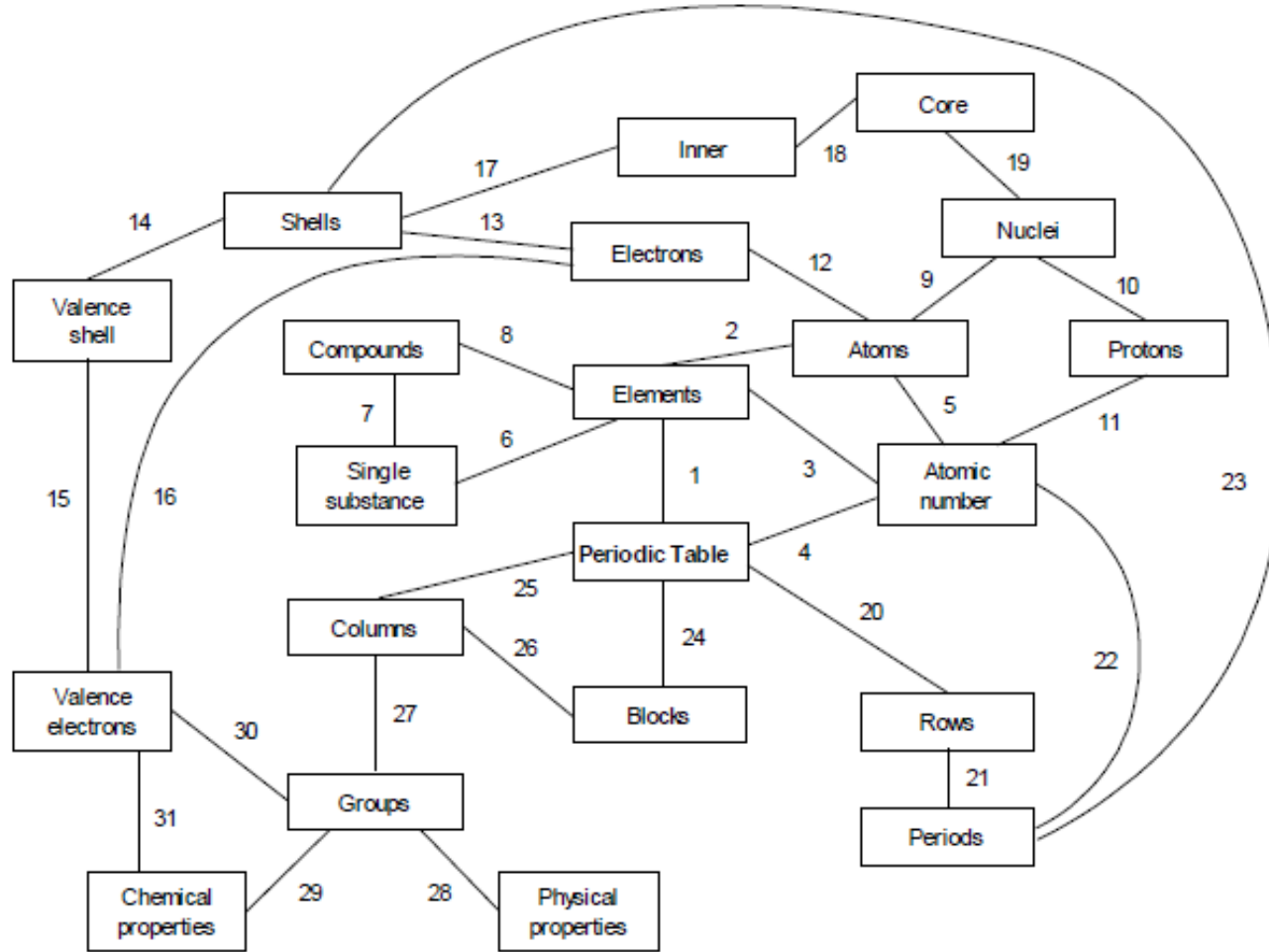
4.

5.

6.

Concept Mapping

Task Example 2: Concept Map of a 'Periodic Table'



Concept Mapping

Core task for less competent students: Fill in the blanks

1. The _____ is a way of arranging what we know about the chemical _____.
2. Each element in the Periodic Table is a different type of _____.
3. Each element has a different _____.
4. The Periodic Table is arranged in _____.
5. Each _____ has an atomic number.
6. An _____ is a single chemical substance.
7. A _____ is a single chemical substance.
8. Compounds are formed when two or more chemical elements react together.
9. An atom has a central _____.
10. A nucleus contains one or more _____.

...

Concept Mapping

Extended task for more competent students

Fill in as many of the spaces as you can, but do not worry if you cannot complete them all.

1. The _____ is a way of arranging what we know about the chemical _____.

2. Each element in the Periodic Table is a different type of _____.

3.

4.

5.

⋮

30.

31.

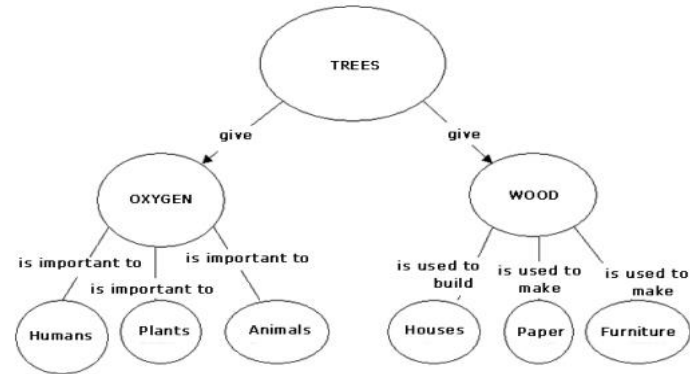
Concept Mapping

Task Examples from Schools:

Munsang College
English - Structural Writing Part 1a: (Organization) Mind Map & Concept Map

Concept Map

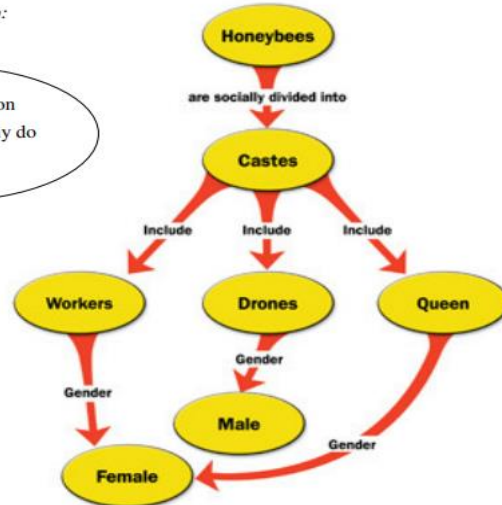
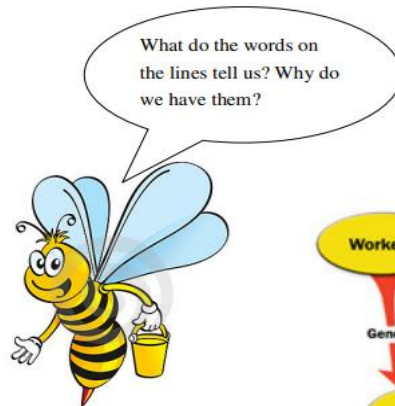
PART A - Introduction



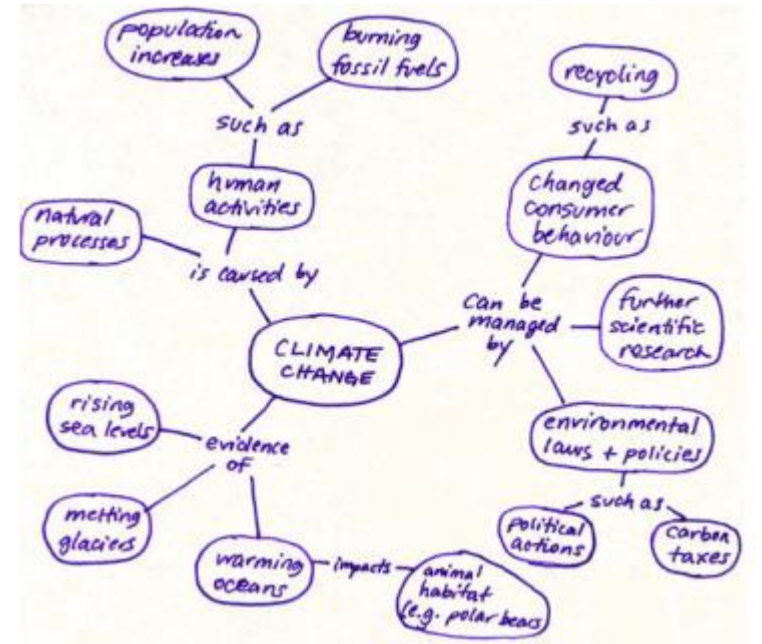
Is this a mind map? If not, in what ways is it different? Try to think of at least two:

- i) _____
- ii) _____

Another example of a concept map:



© Created by Mr. Kan Yu Hin, 2010, M



Part 4: Hands-on Planning of Academic Reading and/or Writing Tasks

Task 6:

- Read Text 5 and Text 6.
- In your group, select one of the two and brainstorm some ideas for planning academic reading and/or writing tasks based on it. Focus should be put on integrating grammar and/or vocabulary features in the tasks.
- Justify your choice of text and discuss how you would scaffold the students for accomplishing the task(s).

Part 4: Hands-on Planning of Academic Reading and/or Writing Tasks

Text 5: <https://www.onegreenplanet.org/lifestyle/fun-upcycling-projects-that-are-perfect-to-make-with-kids/>

For both kids and adults, making our own stuff is rewarding, be it as simple as a long-flying paper airplane or as advanced as a house. You can use even more DIY prowess by going the eco-route; construct those airplanes out of old magazine pages rather than fresh printing paper, or build a house out of recycled tires rather than eating up more resources.

Learning to transform garbage into something useful rather than wasteful, and aesthetically pleasing as opposed to heaping pile, is a great lesson for kids (as well as adults). It teaches us to think more innovatively, conserve what we have and entertain ourselves.

Part 4: Hands-on Planning of Academic Reading and/or Writing Tasks

Text 6:

<https://youmatter.world/en/definition/upcycling/>

Upcycling represents a variety of processes by which “old” products get to be modified and get a second life as they’re turned into a “new” product. In this way, thanks to the mix and aggregation of used materials, components and items, the end result is a “new product” with more value than the original value of the sum of all its components. In other words, upcycling is about materials or items that get to be re-adapted and/or re-purposed in a creative way, and whose lifespan is, therefore, expanded.

Task 6 Debriefing:

1. How do we motivate learners to expose themselves to Academic English?

- Selecting engaging texts (e.g. on interesting topics, with pictorial input etc)
- Setting engaging tasks based on those texts

2. What else can we do?

Leading in Academic English texts with multimodal support, e.g. for the 'Upcycling' topic:

[https://www.youtube.com/watch?v= I3ORnn38Sc](https://www.youtube.com/watch?v=I3ORnn38Sc)

Wrap-up

- Grammar and vocabulary being important resources for reading and writing
- **Academic** grammar and vocabulary being important resources for **academic** reading and writing
- **Academic** reading and writing and hence **academic** grammar and vocabulary being an indispensable part of our ELE curriculum