The Use of Phonics and Vocabulary Building Strategies in Teaching Non-language Subjects

10 May 2014

St. Joan of Arc Secondary School

Why phonics?

Phonics…

- refers to a method for speakers to read and write that language
- involves teaching how to **connect the sounds with letters** or groups of letters (e.g., the sound /k/ can be represented by *c*, *k*, *ck* or *ch* spellings) and teaching students to **blend** the sounds of letters together to produce **approximate** pronunciations of unknown words

Phonics…

- helps students **analyze** the letters, letter combinations and syllables in a word;
- enables students to **decode** or "sound-out" a word they have in their **speaking vocabulary**.
- helps students "**encode**" unfamiliar words when they listen to a word and try to **spell** them out.

Word recognition

The printed word

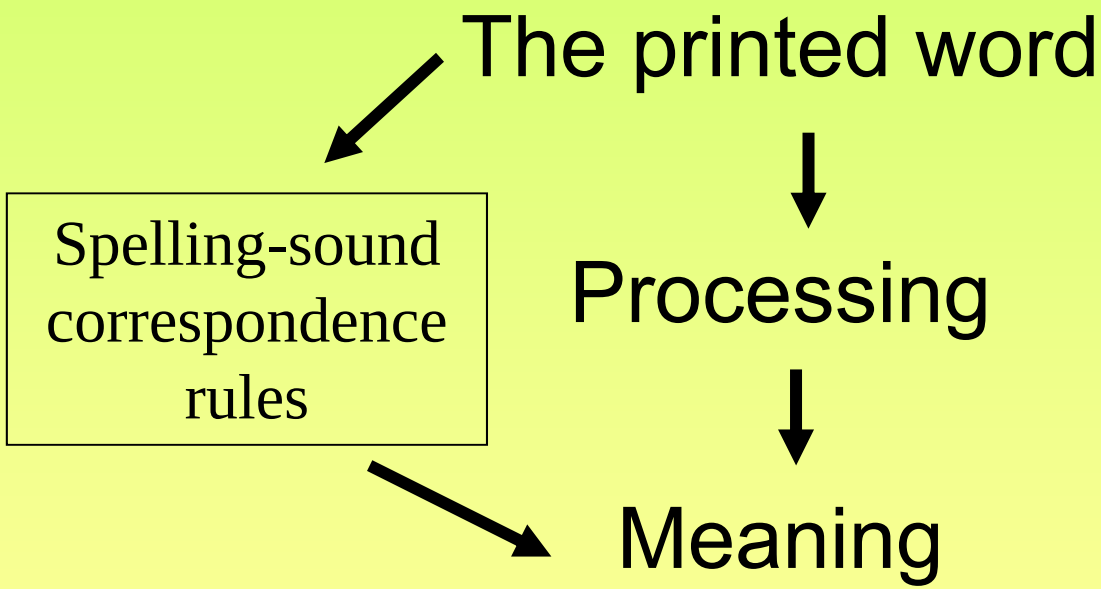
↓

Processing

↓

Meaning

Dual-route theory of written word recognition



Introduction of Phonics in the English Curriculum

Year 1

→1 phonics lesson per week in S1 and S2

→ conducted by NET

→ the role of English teachers:

First term: observers

Second term: co-teaching with NET

→ also embedded in daily teaching

Introduction of Phonics in the English Curriculum

Year 2

→Introduced in S1

→Conducted by English teachers

→Embedded in daily teaching

Steps to teach pronunciation using phonics

- Locate the vowel(s) in the word (magic e, 2-in-1)
- Cut up the word
- Identify the number of syllables
- Sound out different parts of the word using letter-sound correspondence or small words (long and short vowel, digraph)
- Blend the sounds and pronounce the word

beginner

How do you say this word?

1. How many *a, e, i, o, u* do you see in this word?
2. How can you cut up this word?
3. How many syllables are there?
4. How do you say the different parts?

   be…gin…n**er**

5. Now, put them together and say the word.
   Listen to the teacher and **say** the word.

litter

How do you say this word?

1. How many *a, e, i, o, u* do you see in this word?
2. How can you cut up this word?
3. How many syllables are there?
4. How do you say the different parts?

   lit…t**er** ***i*** = short ***i***

5. Now, put them together and say the word.
   Listen to the teacher and **say** the word.

Support given to non-English teachers

1) Professional Development Workshops

→Service providers / universities

→Supported by our NET

2) Lesson observation on non-English teachers

→NET / English teachers are invited to be observers

→Post-lesson observation feedback

Support given to non-English teachers

3) Demonstration

→NET / English teachers demonstrate the use phonics in Science / Mathematics classes

4)Resource teachers

→ NET / English teachers act as resource teachers

Limitations

- English words do not have a one-to-one speech-sound to symbol relationship.

  Example:

  Single Letter / Different Sounds

  Apple /ˈæpəl/

  Always /ˈɔlweɪz/

  About /əˈbaʊt/

  Acorn /ˈeɪkɔrn/

  Artist /ˈɑrtɪst/

Limitations

- Same Sound – Different Letters
- Long vowel e
- Be, tree, quay, sea, people, piece, complete, seize, key

Limitations

- The many homonyms in English create difficulties for students when they try to spell words using phonics

- see / sea
- pair / pear
- bare / bear





Limitations

• Phonics skills may not help students in areas like stress and intonation.

•which ‘e’?
•stress?

record (n.) Vs record (v.)

Recommendations

- Raise students' awareness of the unpredictable relationship between letters and sounds.
- Enhance students exposure to English through reading

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S2 Science
Vocabulary – Chapter 10 Acids and alkalis

Name: _____ Class: _____

Examples of strong acids	Hydrochloric acid	Hydrochloric acid	Hydrochloric acid
	Hydrochloric acid	Hydrochloric acid	Hydrochloric acid
	Sulphuric acid	Sulphuric acid	Sulphuric acid
	Sulphuric acid	Sulphuric acid	Sulphuric acid
	Nitric acid	Nitric acid	Nitric acid
	Nitric acid	Nitric acid	Nitric acid

Examples of weak acids	Carbonic acid	Carbonic acid	Carbonic acid
	Carbonic acid	Carbonic acid	Carbonic acid
	Citric acid	Citric acid	citric acid
	Citric acid	citric acid	citric acid

Examples of strong alkalis	Sodium hydroxide	Sodium hydroxide	Sodium hydroxide
	Sodium hydroxide	Sodium hydroxide	Sodium hydroxide
	Potassium hydroxide	Potassium hydroxide	Potassium hydroxide
	Potassium hydroxide	Potassium hydroxide	Potassium hydroxide

Examples of weak alkalis	Ammonia solution	Ammonia solution	Ammonia solution
	Ammonia solution	Ammonia solution	Ammonia solution
	Calcium hydroxide	Calcium hydroxide	Calcium hydroxide
	Calcium hydroxide	Calcium hydroxide	calcium hydroxide
	Sodium hydrogencarbonate	Sodium hydrogencarbonate	Sodium hydrogencarbonate
	Sodium hydrogencarbonate	Sodium hydrogencarbonate	Sodium hydrogencarbonate

St. Joan of Arc Secondary School
S2 Science
Vocabulary – Chapter 10 Acids and alkalis

Name: [redacted] Class: 2FA [redacted]

Examples of strong acids	Hydrochloric acid	hydrochloric acid	hydrochloric acid
	hydrochloric acid	hydrochloric acid	hydrochloric acid
	Sulphuric acid	Sulphuric acid	Sulphuric acid
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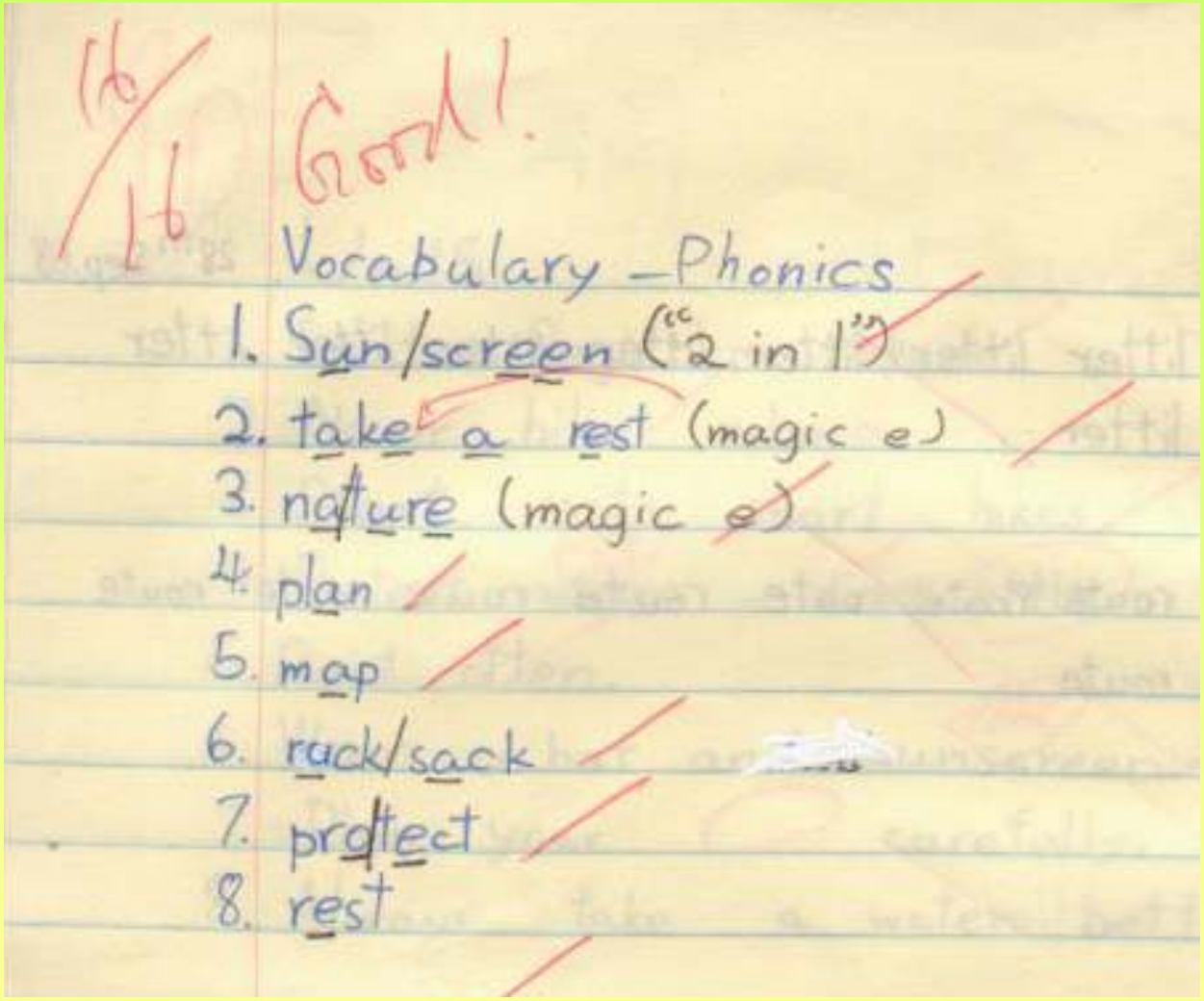
16/16 Good!
Vocabulary – Phonics
1. Sun/screen ("2 in 1")
2. take a rest (magic e)
3. nature (magic e)
4. plan
5. map
6. rack/sack
7. protect
8. rest

Vocabulary Building

- translation from English to Chinese is more demanding for students when understanding new concepts. → not recommended
- Vocabulary building can be done through identifying things. (i.e. learning vocabulary in groups or categories but not in separate items)

St. Joan of Arc Secondary School
S2 Science
Vocabulary – Chapter 10 Acids and alkalis

Name: _____ Class: _____

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Vocabulary Building

- vocabulary worksheet can be designed in the form of diagram labelling instead of a table with vocabulary.

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S2 Science
Vocabulary – Chapter 10 Acid rain

Name: _____ Class: _____( )

neutralization

acid	+	alkali	=	salt	+	water

pH value < 7

pH value > 7

	+		=		+	

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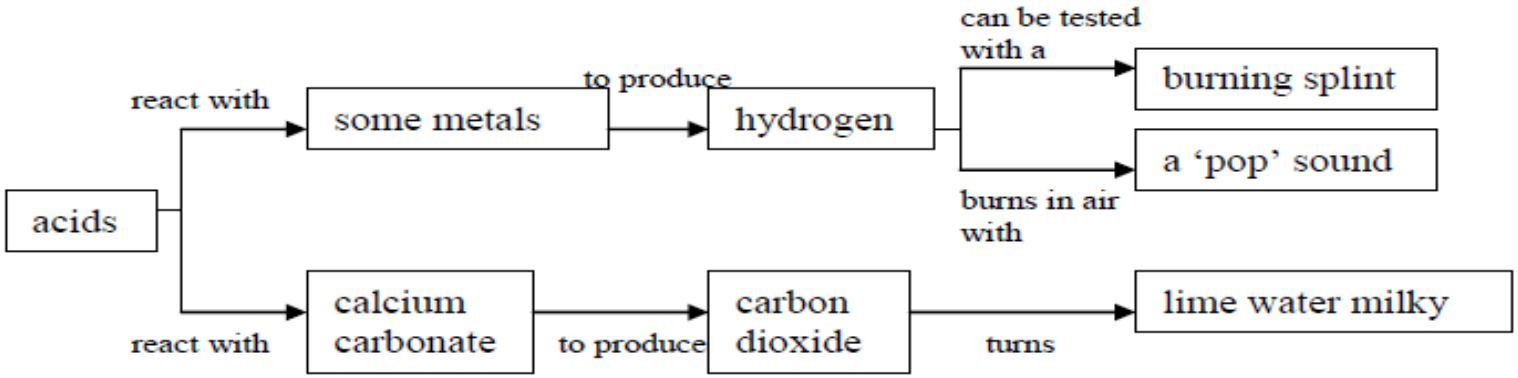
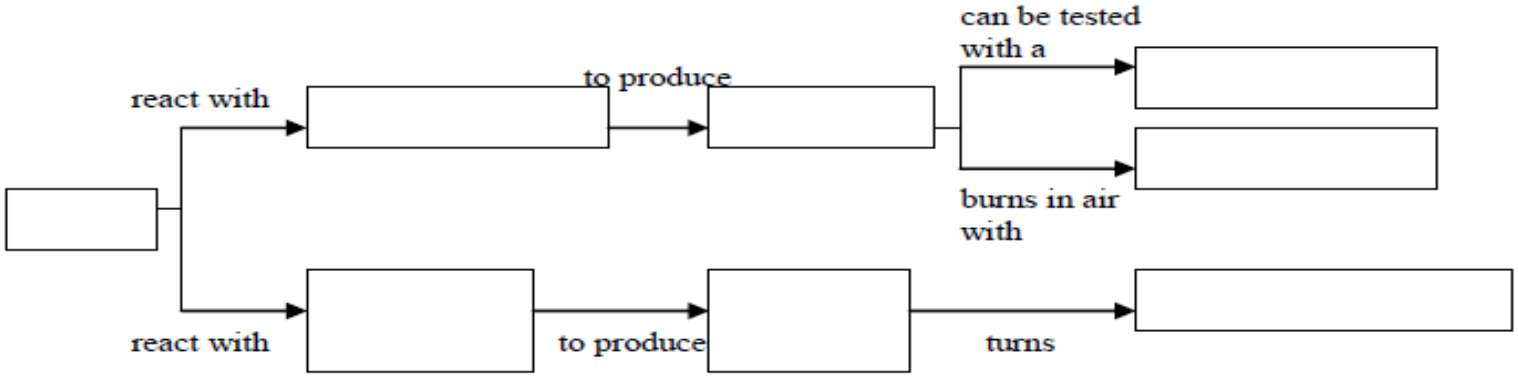
Vocabulary – Chapter 10 Acids and corrosion

Name: _____ Class: _____( )





Ways to explain vocabulary

- **1. Synonyms**
- **2. Antonyms**
- **3. Pictures**
- **4. Mime / Actions**
- **5. Sound**
- **6. Reality**

Q & A

Thank you!