## Strategies and Reflections in Promoting ELA in English (Science)

H.K. & KLN. KAIFONG WOMEN'S ASSOCIATION SUN FONG CHUNG COLLEGE

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#### We are... Ms Wu Fung King (Vice Principal) Ms Chan Pui Yee ( Junior Form Science Panel Head) Ms Shum Fung Yu, Janet (Junior Form LAC **Committee Head**) Ms Chan Hok Kan, Angela (English Panel Head) Ms Yung Ka Wan, Alicia (English Panel Deputy) Head)

# Today's Rundown

- Part I :
  - School introduction
  - Brief review on school ELA in English

#### • Part II:

- -sharing on strategies and reflections in promoting ELA / LAC in English (Science)
- Part III: Conclusion
- Part IV: Q&A

Part I : School Introduction - established in 2002

- first aided school using Putonghua as the teaching medium in H.K. SFCC is committed to nurturing our students to be 孫方中書院致力培 育學生成為

Self-motivated in learning, Fluent in Eng & PTH, Creative, and Character-driven.

- 主動學習、
- 具良好語文能力
- 有創意及
- 具良好品格的 新一代。



#### • Part I : Brief review on school ELA in English

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Leane Log	a across Curriculum	Planning	LAC)
Trial stage (2006-2007)	<ul> <li>Cross-curricular plan initiated</li> <li>A task-based approach adopted</li> <li>Small scale</li> <li>A module (about 20 lessons) co- designed by English and Science</li> <li>teachers with EDB support</li> <li>a water project (published by EDB)</li> </ul>	2 subjects involved	51 Classes
Preparation/ Planning stage (2007-2009)	<ul> <li>Mapping schemes of work across different Key Learning Areas (KLAs)</li> <li>Assignment presentations done on Staff Development Days</li> <li>Joining Open University LAC support programme</li> </ul>	4 subjects involved	S1 & S2 classes
Implet Intestion stage (2009-2010)	<ul> <li>teachers and students of four subjects (Computer Literacy, Integrated Science, Geography, History) involved</li> <li>Larger scale; Cross-curricular plan incorporated into the curriculum in a more holistic manner</li> <li>Good practice will be kept and sustained</li> <li>Improvements will be made</li> </ul>	4 subjects hvolved	S1, S2 & S3 Classes

# What we are doing in 2010-2011 A. F.1 Computer and I.S. are conducted in English B. Language across Curriculum Planning (LAC) Subjects involved: History, Geog, Maths and English Form a task group (English and non-English teachers) ELA Team (2009-2010)---under Eng.depart LAC Committee (2010-2011)---under AC Decide: a) the target forms, b) which department to collaborate with c) learning objectives, outcomes Regular meetings $\rightarrow$ review (PIE)



#### Part II: -sharing on strategies and reflections in promoting ELA / LAC in English (Science)

# Highlight 1

# Water Project 2006-2007

#### Start Small...



<i>Reading:</i> poems, articles on water pollution	Writing: collaborative writing, design poster,journal	
Sell posters, present project (water filter model), give response to peers	Listen to peers' presentation	

A pilot project of cross-curricular planning: Water Project 2006-2007

> A 20-lesson module
> A task-based approach
> Theme: Water
> Subjects involved: English language and Integrated Science
> No. of classes involved: 5
> Level: S1

#### Objectives and expected outcomes of the Enriched vocabulary bank → enhanced reading skills

- Students' vocabulary bank enriched
- Students gained more opportunities in speaking
- Students' knowledge in the subject content (Integrated Science) enriched
- Students learn collaboratively in <u>group</u> work
- <u>Teachers collaborate</u> <u>across different</u>

departments



#### 1. Our focus:

2. For English teachers: • Which chapter in the book can we use?/ Shall we develop our own materials? Vocabulary items • Grammar items •Text types to be included in the module •Which skills to teach/reinforce ?

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#### English Teachers

#### Science Teachers

Jeachers' Role

Develop assessment tasks and classroom activities for teaching English Language skills Select suitable texts that facilitate the teaching of subject content

#### Language Focus

-Rhyming (for slogan design) -Reasoning (I like the poster because ...)

-Numeracy (for cheque writing) -Bargaining (I will give you a discount if ...)

-Persuading (You will regret if you don't buy it)

Subject Content Water filtration/ filter Water pollution Water wastage Water conservation



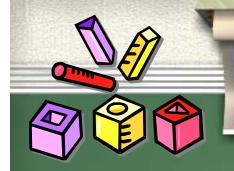
#### English teachers' roles

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 Tailor-made teaching and learning materials
 Teach target vocabulary in context
 Facilitate group work
 Assess students' presentation of the Science project
 Help students reflect on the learning processes



 Celebrate learning outcomes with students
 Engage students in activities outside classroom
 Share ideas with local teachers Celebrate with students the World Water Day (WWD) 22<sup>nd</sup> March in the school's English Garden (e.g. poster selection, TV-viewing on proper water usage, quiz, etc.)



#### Science teachers' Roles

 Provide content materials
 Consolidate students' learning
 Assess students' performance 1. Vocabulary-building Teach and consolidate the vocabulary in both English and Science lessons through a variety of activities Imprové students' reading skills 2. Useful Sentence patterns help students in improving their writing and speaking skills further develop the teaching of sentence patterns in content subject

What have we learned from this project?

# The Language Teaching Album (2006-2007). A Collection of School-based Practices.

http://cd1.edb.hkedcity.net/cd/languagesupport/publications/compendium\_e.ht m



# Highlight 2 Subject morning reading materials



Experience from water project
Collaboration of different departments
The importance of reading
Curriculum planning



## How do we collaborate?

Science > Provide reading materials > Design worksheet on content knowledge English Language
Design worksheet on
language part
Teach sentence
patterns
Design quiz and
consolidation exercise

Hig	hlight	2	ELA Cu	rriculum Pla	anning	
Form	Subject	Торіс	Target vocabulary items	Content objectives	Language objectives	I/C
F. 2	Science	Living things and Air	Noun nitrogen, oxygen, carbon dioxide, etc. Verb contains, relight, turns, needs, etc.	Students should be able to state components of air. Students should be able to tell different living things.	1. Use connective s "when" to describe different processes 2. Use passive voice to explain / elaborate scientific facts	Subject teacher (Content part) English teacher (language skills) ELA Coordinator (Coordination)

# How can we consolidate what they have learned?

#### A) Weekly/ Thursday dictation

- 1. Helium (He).
- 2. Copper (Cu).
- 3. Nitrogen (N)
- 4. Gold (Au)
- 5. Diamond is made of carbon (C).
- 6. Graphite is made of carbon (C).

**Vocabulary building** 

Develop sentence

structure

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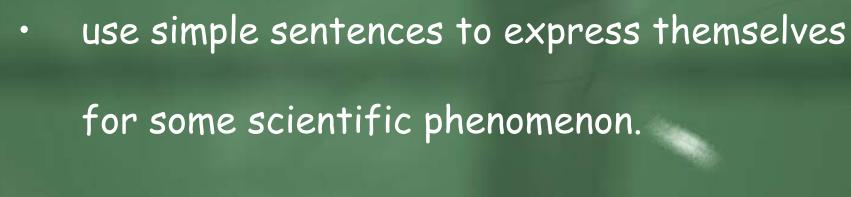
# Highlight 3 **S**1 IS fine-tuned Policy



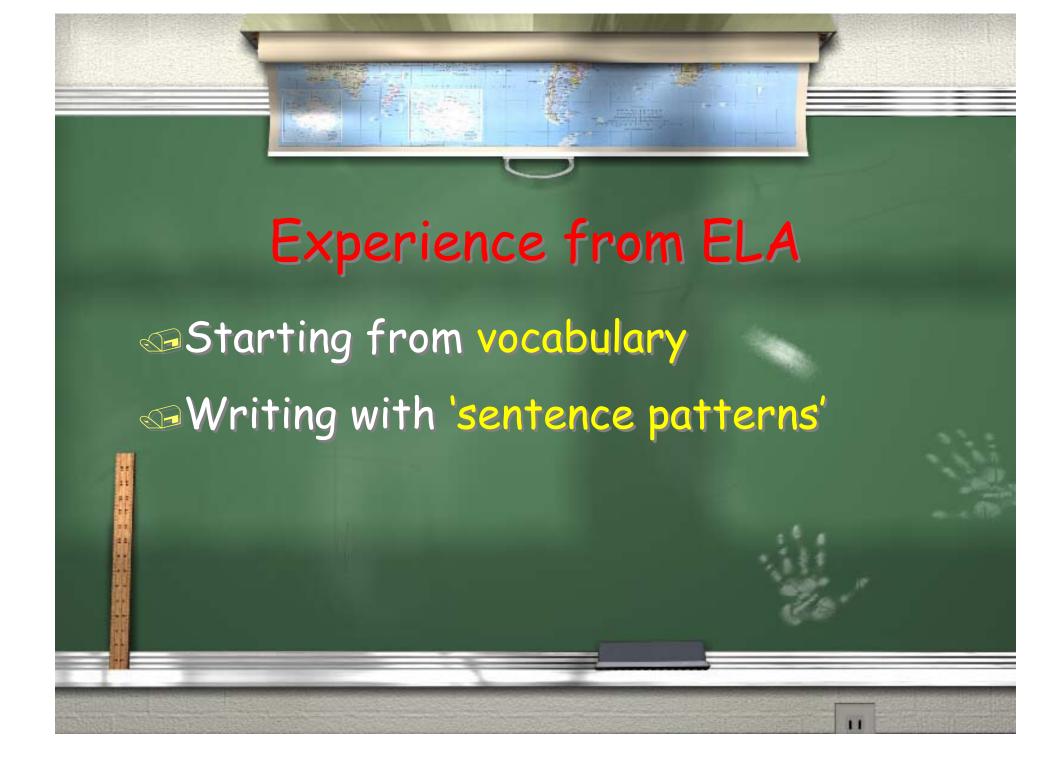
## At the end of S1, students can

gain confidence in tackling scientific problems in English

understand some basic scientific concepts which may help them in further study ( from S2 onwards ).



tell the name and the uses of the devices that commonly used in the laboratory.



# Implementation

#### Design own school-based teaching materials

Existing textbook
Looks like workbook rather than a textbook

A lot of difficult wordings
 Not much linkage between relevant contents



### Curriculum Reform

#### Start with concept-focusing and

less vocabulary involvement

# Chapter 4 (Energy) Chapter 1 (Introducing Science) Chapter 5 (Water a wonderful Solvent) + part of chapter 6 (states of matter) Chapter 6 (Molecular Theory) Chapter 2 (Looking at living things) Chapter 3 (Cells and human reproduction)

Curriculum Reform

# Problems facing by S1 students new to the school may not get used to the secondary school-life and the ways of having science lessons in English agive up easily

Why not started with Chapter 1? Lots of vocabulary and laboratory regulations (students can't remember the new words easily even the MOI is Chinese)

After learning the "new words" and "regulations", they may not use them in the following one or two chapters (Looking at living things, Cells and human reproduction)

Students can hardly remember those scientific terms without practising.

Starting with Chapter 4 (Energy)

Solutions science concepts
Solution of the concepts were taught in the primary schools.

# Fewer vocabulary more time can be spent on discovering the interesting aspects in the subject.

# Cross-section discussion

Panel chairpersons from Physics, Chemistry, Biology and I.S. have discussed about the curriculum reform

The rearrangement of curriculum which can have a better interface with the NSS science subjects.

students can grasp the science concepts quite easily even the MOI is English.  $\longrightarrow$  very difficult to express themselves in words.

# Let's Write for Science

A grammar worksheet has been designed for the S1 students.
2 or 3 sentence patterns will be introduced in each section.

Vocab Spelling Game adifficult to memorize all the vocabulary in need This may encourage the students to memorize the new words as soon as they have learnt them.

Good morning / good afternoon, could you please help me in practicing the following words spelling?

Words: (1) impurities (3) Distill (5) filter

(2) solid(4) soluble

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Thank you very much. Can you sign this for me?

# Who will help in this game?

Science teachers
 All the teachers in the school
 The principal
 Student mentors
 Student helpers from SU

# Visualization

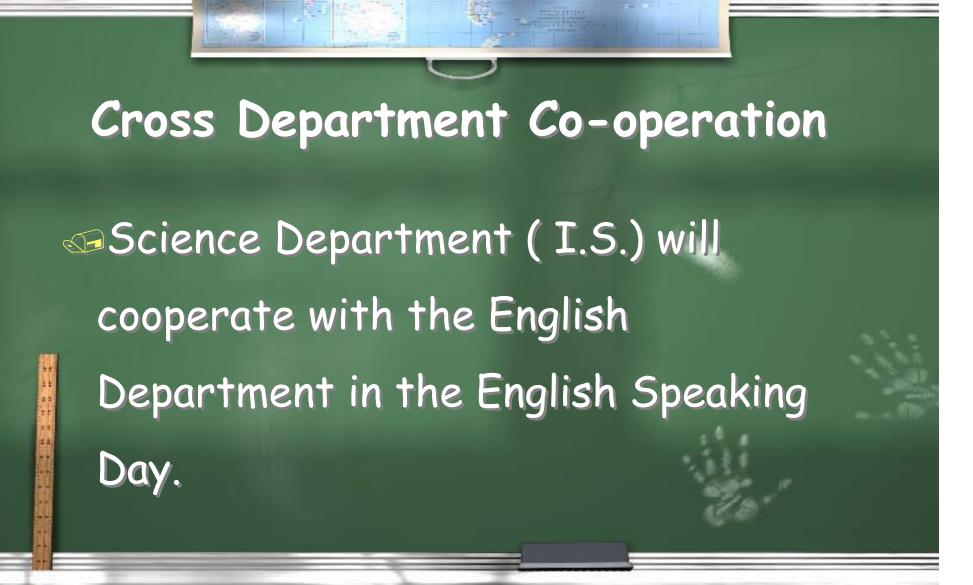
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simple wordings

pictures
graphs

# Other resources

Pronunciation of the new words are recorded and will be uploaded to the school website which could facilitate students' self-learning.



# Co-operation between English Language, I.S. and I.C.T.

#### A. English Speaking Day

- Conducted every Tuesday
- NETs prepare worksheet
- Students speak English with teachers
   and English Academic Prefects
  - Enter Lucky Draw
    - Win tuck shop vouchers

English Speaking Day Worksheet

WATER

<u>English</u> <u>Speaking</u> <u>Day</u> Passport

# "Water Project"

#### Working with the English Department.

Students will be asked to do a project on

"water".

# English teachers

#### Responsible for teaching students

the techniques in doing the project.

# IS teachers

#### Responsible for providing information

about the topics.

### Co-operation between English Language, I.S. and I.C.T.

B. Mapping with curriculum

*I.S.* ✓ Easter Assignment ✓ Observe plant growth

✓ Finish learning log

English Language Turn experience into writing Write a letter/ diary to record the activities during Easter Holiday

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# **Part III: Conclusion**

Start small
school support
Set up a ELA / LAC committee
Planning, implementation and evaluation (PIE)

