



**Dawn of Civilization is a digital game-based learning application aims to help students improve their English skills in a fun way.**

Students and teachers in Singapore can use Dawn of Civilization to supplement classroom learning. Students can practise and improve their vocabulary, grammar, pronunciation, listening, and reading skills.

One of the possible approaches to utilize DoC in classroom learning is assigning the game to students who are lagging behind in class to catch up with their peers. Teachers can also assign the game to highly performing students to use it when they have finished required classwork as a way of continuing with study and also as a type of reward.



This comparative analysis is informed by a review of official documents, scholarly, and grey literature to identify and reflect upon the alignment of Singapore English Learning (EL) Syllabus and English content on Dawn of Civilization.<sup>1</sup>

A broad literature search was conducted using the key terms and through a range of key academic or peer-review journals—academic search mechanisms, educational research repositories, and online research catalogues and interfaces such as Google Scholar. Analysis of each learning objective in Singapore EL Syllabus were compared to the English content on Dawn of Civilization, which was developed according to Common European Framework of Reference (CEFR) for English.

Reporting occurred thematically but also incrementally, allowing theoretical concepts to be seamlessly infused into practical references.

<sup>1</sup>Dawn of Civilization is a digital game-based learning application developed by Solve Education!

## Common European Framework of Reference (CEFR) for English

The Common European Framework of Reference for Languages: Learning, teaching, assessment (CEFR) is a comprehensive descriptive scheme of language proficiency and a set of Common Reference Levels (A1 to C2) defined in illustrative descriptor scales, plus options for curriculum design promoting plurilingual and intercultural education. The CEFR is being used not only to provide transparency and clear reference points for assessment purposes but also, **to inform curriculum reform and pedagogy**. CEFR is the main inspiration for Dawn of Civilization English Content.

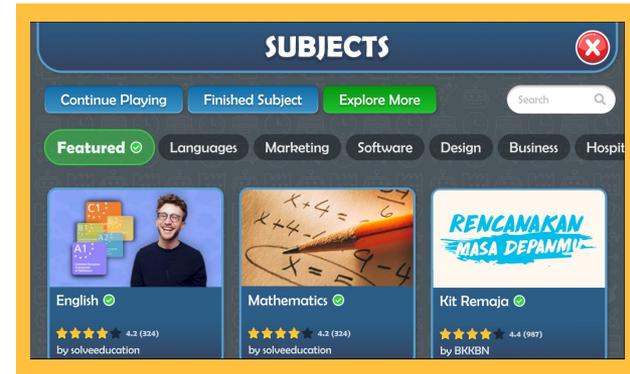
## Singapore English Learning Syllabus

The English Language Syllabus 2020 for the Primary level focuses on the development, reinforcement, and extension of language skills in the primary years through an enjoyment of the language and the promotion of extensive reading; and leveraging oracy, reading and writing skills to develop knowledge and independent use of the language. The English syllabus for primary school is focussed around six key areas: **Writing and Representing, Reading and Viewing, Listening and Viewing, Speaking and Representing, Grammar, and Vocabulary**.

# Dawn of Civilization's (DoC) English Curriculum

Solve Education! created a core English Curriculum in orientation to the Common European Framework of Reference (CEFR) which serves as a basis for its pedagogical approach and is delivered through its educational game app, Dawn of Civilization (DoC):

- **Personalises** content through gamification
- **Modifies curriculum** to suit the needs of its individual learners which typically come from low-income background
- **Leverages artificial intelligence** to help individual learners become successful independent learners as well as confident in their ability to learn and solve problems.
- **Encourages learners** to identify, demonstrate, analyse, and even challenge information they received.



# Singapore English Learning Syllabus Aims

1. Listen to, read and view critically and with accuracy, understanding and appreciation a wide array of literary and informational texts in standard English<sup>2</sup> from print, non-print and digital networked sources.

2. Speak, write and represent in standard English that is grammatical, fluent, intelligible and appropriate for different purposes, audiences, contexts and cultures.

3. Use standard English grammar and vocabulary accurately and appropriately, and understand how speakers/writers put words together and use language to communicate meaning and achieve impact.

4. Use English with impact, effect and affect.

<sup>2</sup> Internationally acceptable English that is grammatical, fluent, and appropriate for purpose, audience, context and culture refers to the formal register of English used in different parts of the world.

# Characteristics

		English Syllabus	DOC Curriculum
<b>Learning Environment</b> 		Learners have access to English in everyday life. English is used as the medium of instruction.	Most learners do not speak English in everyday life. DoC is suitable for learners who come from non-English speaking households.
<b>Literacy Skills</b> 		Specifically targets reading as a primary literacy skill.	The use of pictures, particularly at lower levels, is greatly increased in conjunction with words to keep learners motivated.
<b>Delivery Period</b> 		Designed to be delivered over a period of 11 years (normal stream for primary and secondary education) with several hours each week of active instruction as well as many more hours of passive learning at home in which students are heavily exposed to English everyday.	Designed to be delivered in a self-paced manner to allow learners to schedule their learning based on their own availability, since English is not a language they are exposed to in everyday life.

# Where will DoC have the best effect to assist students in Singapore?

## Lower Primary (Primary 1-2)

The best effect for Singaporean students during the lower years (grades 1-2) will be in the vocabulary building and pronunciation. This being said it is not guaranteed that the vocabulary in the DoC platform will match that of any given classroom as each teacher will have a slightly different focus. DoC has been designed to cover many different vocabulary areas and, as such, can be useful in building an individual's personal lexicon.

## Middle Primary (Primary 3-4)

In middle primary (grades 3-4), students are prepared to develop and strengthen vocabulary knowledge, and take an active role in learning new vocabulary items. In addition, students are prepared to listen and read critically by making connections between parts of texts. DoC has been designed to help students develop and strengthen their vocabulary as well as basic sentence structure, listening, and reading skills.

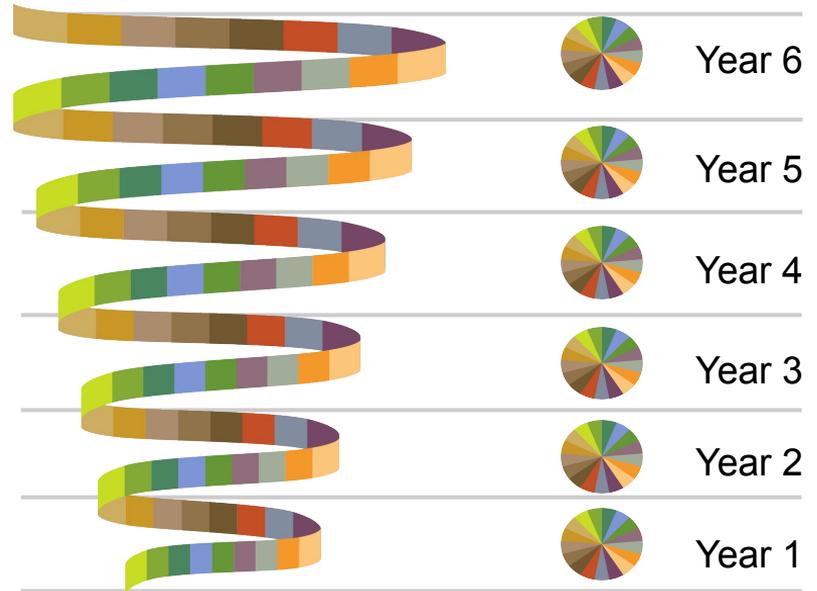
## Upper Primary (Primary 5-6)

Upper primary students are expected to focus on different text formations, and these are primarily longer texts. Reading, understanding, extrapolating information and then creating or recreating text forms requires active teaching and correctional input. Teachers can assign DoC to students to use it when they have finished required classwork as a way of continuing with study.

# Singapore Spiral Curriculum & DoC Minigames

The curriculum in Singapore is unique, in that each concept taught is not aimed to reach mastery in a single year of school. Instead, each concept is taught repeatedly, appearing again in each school level, but with increasing depth of the concept and target milestone with each year that the student progresses through. In the spiral figure to the right, this is visualized with the widening of the spiral with increasing school grades.

**DOC is similar to this learning approach** in that each of the 16 minigames contains content at various levels and can complement teaching throughout the Singaporean primary school English curriculum.



Each distinct colour represents a minigame in DoC



# DoC Minigame Content Information (1)

DoC Minigames	Vocabulary Building	Grammar	Pronunciation	Listening and Viewing	Reading and Viewing	Writing and Representing	Speaking and Representing
Fix the Mix	✓						
Speed Racer	✓		✓				
Copy Cat	✓						
Copy Parrot	✓		✓				
Typing Time	✓						
Brain Battle		✓			✓		
Robot Factory	✓						
Word Snap		✓					

# DoC Minigame Content Information (2)

DoC Minigames	Vocabulary Building	Grammar	Pronunciation	Listening and Viewing	Reading and Viewing	Writing and Representing	Speaking and Representing
Hello Cafe					✓		
Flying Robot	✓		✓				
Chat Time				✓	✓		✓
Tic Talk		✓		✓			
Judge Me					✓		
Eye Spy	✓						✓
Talk n Go							✓
Read Up*					✓		

\* To be launched soon

# References

1. MOE Curriculum Planning & Development Division. (2020). English Language Syllabus 2020 Primary. Ministry of Education, Singapore.
2. Council of Europe. (2020). Common European Framework of Reference for Languages: Learning, teaching, assessment – Companion volume. Council of Europe Publishing: Strasbourg. available at [www.coe.int/lang-cefr](http://www.coe.int/lang-cefr).
3. Solve Education!. (2018). Core Curriculum, available at: <https://solveeducation.org/se-core-curriculum/>