

## Dystopia 2153 Lesson Plan

### Background:

Dystopia 2153 is an interactive digital story with multiple-level coding puzzles.

By making good use of the graphic novels and coding games of Dystopia 2153, teachers and students will be experiencing an innovative 'Read to Code' journey from knowledge building to performance assessment.



### About the Story:

The world in 2153 is run by evil bots, it's dangerous to be human. Lance, Freya, and their friends are trapped in the Rathouse Orphanage.

The robot-in-chief is called BASH—a super-intelligent machine created by the evil genius, Harry Mole. Harry helped unleash chaos in the world that led to these children and others being held captive against their will. The end goal for Lance, Freya, Fork, Beano, Emily and Max is to reunite with their lost families. To do that they must escape from the oppressive Rathouse Orphanage controlled by cruel robots.

### Learning Objectives

Students are able to:

- learn core coding concepts through coding puzzles in an interactive digital story environment:
  - using sequence, selection, and repetition
  - working with variables and various forms of input and output
  - moving sprites through a maze using basic move commands and conditionals
  - using conditionals to sort items and complete tasks based on the identity of the item
  - navigating through a grid with x and y coordinates using loops
  - learning about additive colour theory while working with arrays of lights, gradients, different conditional values
- enhance their interest in coding through integrated learning.

### Week 1: Basic understanding

Pre- lesson (30 minutes)	1. Learn the vocabularies			
	Advanced level:			
	Dystopia	Utopia	Artificial Intelligence	Devastation (P.1)
	Catastrophe (P.2)	Oblivion (P.3)	Conscience (P.4)	Humanity (P.4)
	Orphanage (P.10)	Rebellious (P.11)	Insubordination (P.17)	Hologram (P.21)
Sequence (P.39)	Incentive (P.47)	Permission (P.50)	Intuition (P.50)	

	<p>Elementary level:</p> <table border="1" data-bbox="368 147 1426 488"> <tr> <td>Dystopia</td> <td>Artificial Intelligence</td> <td>Orphanage (P.10)</td> <td>Dangerous (P.7)</td> </tr> <tr> <td>Rebellious (P.11)</td> <td>Trash (P.11)</td> <td>Overwhelming (P.14)</td> <td>Punish (P.15)</td> </tr> <tr> <td>Underground (P.19)</td> <td>Stubborn (P.18)</td> <td>Escape (P.21)</td> <td>Stuck (P.34)</td> </tr> <tr> <td>Sequence (P.39)</td> <td>Restless (P.47)</td> <td>Mercy (P.50)</td> <td>Emotion (P.55)</td> </tr> </table> <p>Have students select five or six words, and then research on the meaning of the words.</p> <p>* Preparation by teacher: Create and test student accounts in advance</p>	Dystopia	Artificial Intelligence	Orphanage (P.10)	Dangerous (P.7)	Rebellious (P.11)	Trash (P.11)	Overwhelming (P.14)	Punish (P.15)	Underground (P.19)	Stubborn (P.18)	Escape (P.21)	Stuck (P.34)	Sequence (P.39)	Restless (P.47)	Mercy (P.50)	Emotion (P.55)
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<p>In-class (15 Minutes)</p> <p>(20 Minutes)</p> <p>(10 minutes)</p> <p>(20 minutes)</p>	<p>2. <a href="#">[English] Activity 1</a>: Discussion Have students discuss the concept of dystopia. Are students able to point to examples of a dystopian world or environment using examples from something they may have read, seen, played, watched or even experienced?</p> <p>3. <a href="#">[English] Activity 2</a>: Describe the personality of characters Students log in and go through the first section of the story (P.1 -22). Ask students to describe the personality of one of the characters.</p> <p>4. <a href="#">[ICT]</a> Students log in and read the story again (P.1 - 22) to get familiar with the story setup.</p> <p><a href="#">[ICT] Activity 1</a>: Discuss and research on how AI affects our daily lives. In Dystopia 2153, it appears that machines have taken the advantage away from humankind. Discuss with students and research on:</p> <ul style="list-style-type: none"> <li>- What is Artificial Intelligence (AI)?</li> <li>- How widespread is artificial intelligence and should we, as a human species, be concerned about it?</li> <li>- Has AI affected daily lives and if so, in what way? Can they predict a future where AI becomes even more important in our day-to-day lives?</li> </ul> <p><a href="#">[ICT] Activity 2</a>: Try the coding puzzle #1 Level 1 - 5 Go through the coding part and learn ‘move forward’, ‘rotate right’, ‘rotate left’, ‘loops’ etc.</p>																

## Week 2: Story development and coding

<p>Pre-lesson (30 minutes)</p>	<p>1. Read story (P.23 - 40)</p> <p>Have students select two or three of the characters from Dystopia and write a detailed biography about each.</p> <ul style="list-style-type: none"> <li>- Their background information</li> <li>- What do they like / dislike?</li> <li>- What is their personality? Do the characters in the story appear to behave consistently or should they behave differently?</li> </ul>
<p>In-class (5 minutes)</p> <p>(30 minutes)</p> <p>(30 minutes)</p>	<p>2. [English] Revise and consolidate the vocabulary building</p> <p>Go through the exercise students have done on the biography and discussion among the class.</p> <p>3. [English] Introduce the writing and comic drawing competition. Details: <a href="https://www.hkedcity.net/ereap/en/read-code-creator">https://www.hkedcity.net/ereap/en/read-code-creator</a></p> <p><u>Activity 1</u>: Have students imagine they are one of the main characters. Keep a diary documenting what life might be like for that character while living under the conditions in The Rathouse orphanage under the thumb of emotionless robots. (Words: 150 - 300)</p> <ul style="list-style-type: none"> <li>- What happens during the course of a typical day?</li> <li>- How do they feel in that environment?</li> <li>- Alternatively, what might it be like to imagine the life of Harry Mole? Or even BASH the robot?</li> </ul> <p><u>Activity 2</u> (optional): Have students select a page from the graphic novel and describe the techniques used by the illustrator that provides the story's atmosphere and darker feel. Discuss and present to the class.</p> <ul style="list-style-type: none"> <li>- Are there other graphic novels to which Dystopia might be compared?</li> <li>- Have students select one other graphic novel and write out a short comparison focusing on elements such as, use of colour, use of shadow/shading, perspective, lettering, level of detail, even plot.</li> </ul> <p>4. [ICT] <u>Activity 1</u>: Go through the coding puzzles #2 level 1-5</p> <p>Learn 'move to', actions, variables and various forms of input and output</p>

## Week 3: Story development and coding

<p>Pre-lesson (15 minutes)</p>	<p>1. Read story (P. 41 - 57)</p>
<p>In-class (35 Minutes)</p>	<p>2. [English] <u>Activity 1</u>: Writing the story</p> <p>Students will write or create their own ending to the story in Episode One.</p> <ul style="list-style-type: none"> <li>- What do they think will happen in the story?</li> </ul>

(35 minutes)	<ul style="list-style-type: none"> <li>- Will all of the characters survive?</li> <li>- Will Harry Mole and BASH stop Lance, Freya and the others?</li> <li>- Will the children reunite with their parents?</li> </ul> <p>3. [ICT] <u>Activity 1</u>: Go through the coding puzzles #2 level 6-10, #3 1-5 (optional) Revision on 'move to', actions, variables and various forms of input and output. Use conditionals to sort items and complete tasks based on the identity of the item.</p>
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**Week 4: Designing an ending for the story by writing or comic drawing during Easter holiday and hand-in to the teacher**

After-class	<p>Have students finish reading the remaining pages and create their own story ending by writing or comic drawing and hand-in their works (in Word format or hand-writing) to the teacher.</p> <p>*Preparation by teacher: Download the <a href="#">templates</a> for students' submission on the <a href="#">website</a>, collect all students' works and upload them as one file at <a href="#">submission page</a></p>
Evaluation	<p>Evaluate the effectiveness of learning objectives through the reading and coding activities. e.g.</p> <ul style="list-style-type: none"> <li>- Students are more engaged in the coding activities with a story context.</li> <li>- Students understand the learning objectives more clearly in an integrated learning model.</li> </ul>