

## eREAP Seppo – Science investigation in school

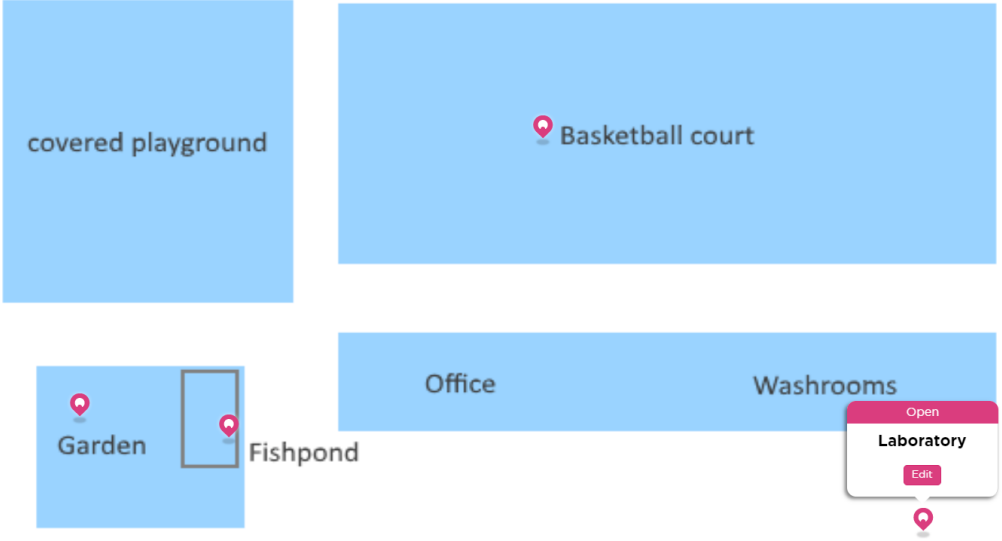
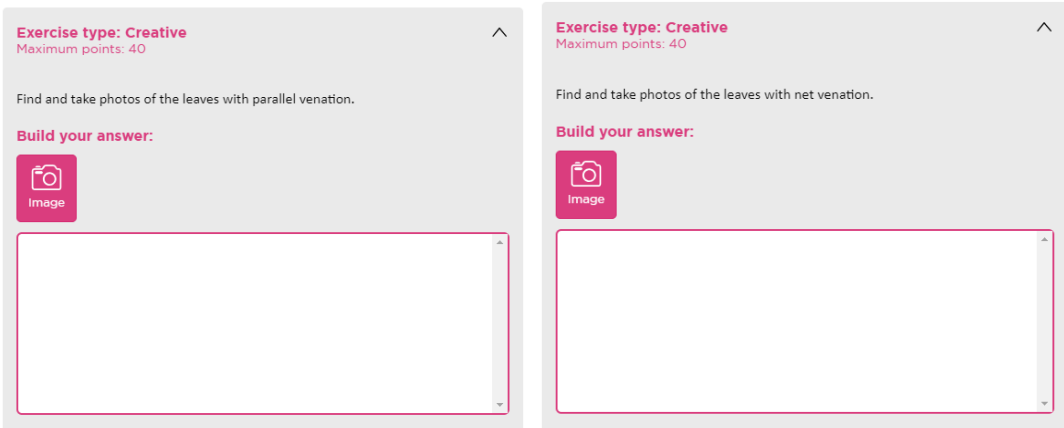
(For secondary schools)

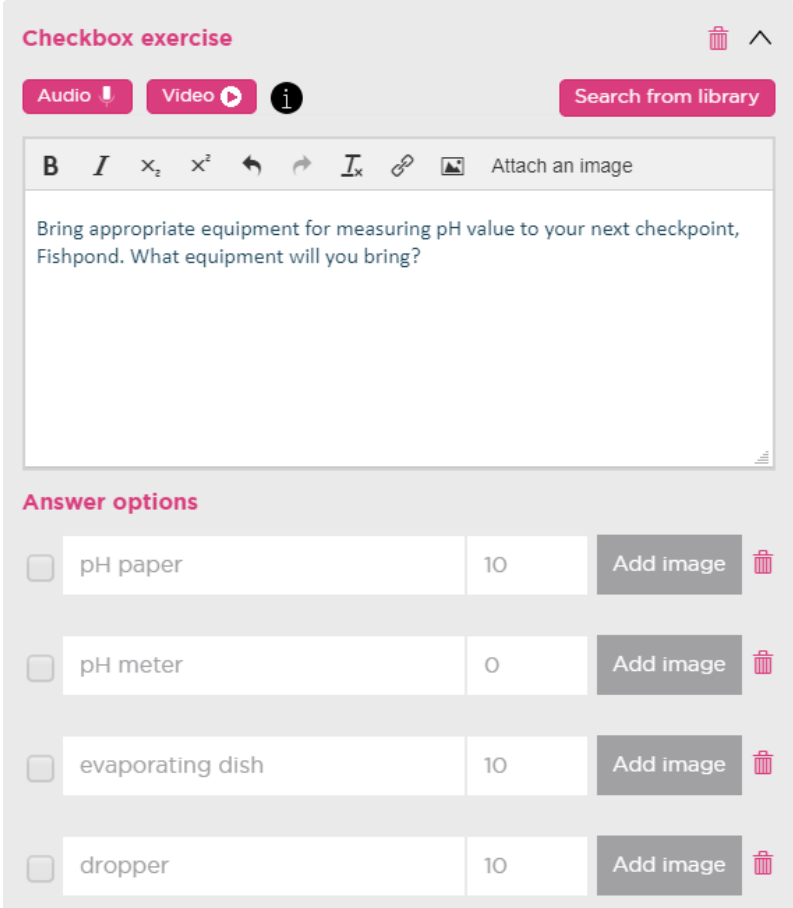
### Learning Objectives

Students should be able to

- observe and recognise the science inside their school
- apply the knowledge from Integrated Science to finish the tasks

**Duration:** 60 minutes / 2 lessons

<p>Preparation</p>	<p>*Teacher creates a simplified map of your school and build a customised activity with checkpoints in your school using Seppo.</p>  <p>Set up 3-4 checkpoints in your school. e.g. Garden, Fishpond, Basketball court, Laboratory etc.</p>
<p>Activity 1 15 mins</p>	<p><b>Check point 1: Garden</b></p> <ol style="list-style-type: none"> <li>1. What are the two types of venation in leaves? <b>Net venation, Parallel venation</b></li> <li>2. Find and take photos of the leaves with different types of venation. Describe the leaf structure.</li> </ol> 

<p>Activity 2 15 mins</p>	<p><b>Check point 2: Laboratory</b></p> <ol style="list-style-type: none"> <li>How do you measure pH value? <b>pH paper / pH metre</b></li> <li>Bring appropriate equipment for measuring pH value to your next checkpoint, Fishpond. What equipment will you bring? <b>pH paper, dropper, beaker/ evaporating dish, pH scale</b></li> </ol> 
<p>Activity 3 15 mins</p>	<p><b>Check point 3: Fishpond</b></p> <ol style="list-style-type: none"> <li>Measure the pH value of the pond water. Upload the result of the pH paper.</li> <li>Is the pond water acidic or alkaline? How do you know that?</li> </ol>
<p>Activity 4 15 mins</p>	<p><b>Check point 4: Basketball court</b></p> <ol style="list-style-type: none"> <li>In the laboratory, what instruments are used to measure length? <b>Metre-rule, half-metre rule and measuring tape</b></li> <li>Which measuring instruments will you use to measure the length of basketball court? <b>Measuring tape</b></li> <li>Measure the length of basketball court and round up your answer to the nearest centimetre.</li> </ol>
<p>After-activity / In-class</p>	<ol style="list-style-type: none"> <li>Teacher share the answers with students.</li> <li>Revision on related science topics: laboratory measurements, pH value, venation of leaves, etc.</li> </ol>

Create a game with template

Tips: Create a game with template

Teachers can edit the activity to customize for their school situation.

Teachers can easily create a game with a template by answering simple questions to guide you to the template you need.

**Where will your game be played?**

**Indoor**      **Outdoor**



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**What is the target duration of your game?**

**Lesson**      **Day**      **Week**



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**Who will be playing the game?**

**Teams**      **Individual players**









   

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**Would you like to monitor and give feedback during the game?**

**Yes**      **No**



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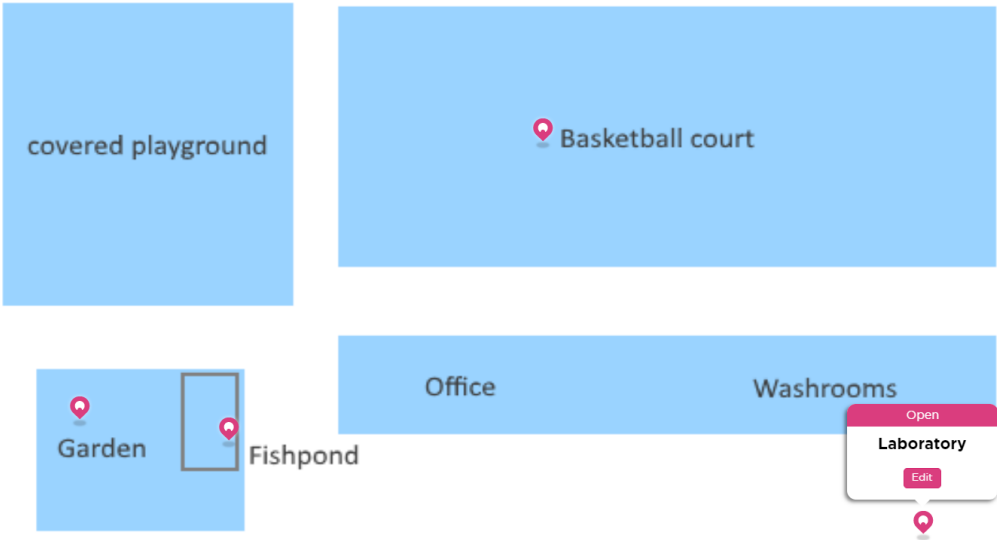
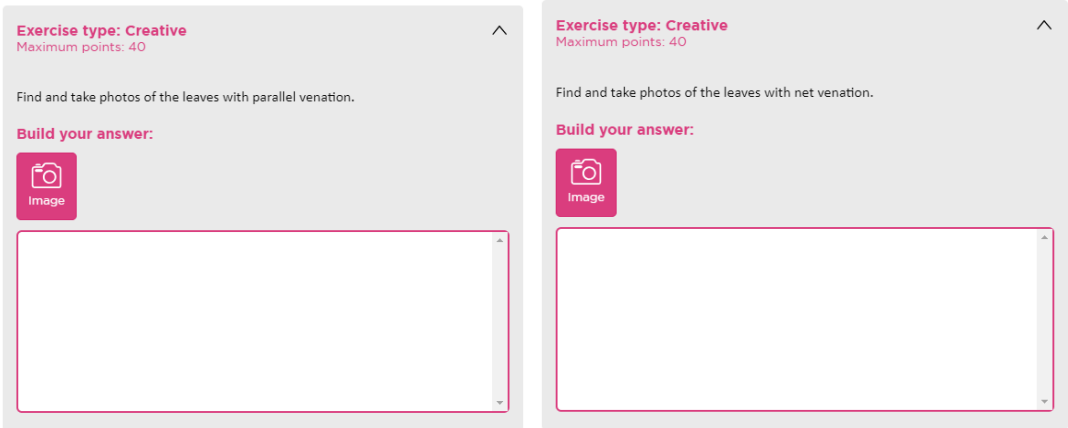
(中學適用)

### 學習目標

學生應能

- 觀察並認識學校中的有關科學的事物
- 應用綜合科學科的知識完成任務

時間: 60 分鐘 / 兩課節

<p>課前預備</p>	<p>教師製作簡化版學校平面圖並運用 Seppo 在學校製作遊蹤活動。</p>  <p>在學校中設計 3 至 4 個任務地點，例如花園、魚池、籃球場、實驗室等等。</p>
<p>活動 1 15 分鐘</p>	<p><b>任務 1：花園</b></p> <ol style="list-style-type: none"> <li>1. 葉脈可以分為哪兩種？<b>平行脈</b>和<b>網狀脈</b></li> <li>2. 拍攝這兩種葉脈的葉片並上傳。</li> </ol> 
<p>活動 2 15 分鐘</p>	<p><b>任務 2：實驗室</b></p> <ol style="list-style-type: none"> <li>1. 如何量度 pH 值？<b>pH 試紙</b>/<b>pH 計</b></li> <li>2. 從實驗室帶適量的儀器到下一個任務點魚池量度 pH 值。你會帶甚麼儀器？<b>pH</b></li> </ol>

試紙、滴管、燒杯、蒸發皿、pH 色板

Answer options				
<input type="checkbox"/>	pH paper	10	Add image	
<input type="checkbox"/>	pH meter	0	Add image	
<input type="checkbox"/>	evaporating dish	10	Add image	
<input type="checkbox"/>	dropper	10	Add image	

<p>活動 3 15 分鐘</p>	<p><b>任務 3：魚池</b></p> <ol style="list-style-type: none"> <li>量度魚池的 pH 值，並上傳 pH 試紙的結果。</li> <li>魚池水是酸性或是鹼性？你如何得出此結論？</li> </ol>
<p>活動 4 15 分鐘</p>	<p><b>任務 4：籃球場</b></p> <ol style="list-style-type: none"> <li>在實驗室中，我們會用甚麼儀器量度長度？ 米尺、半米尺及捲尺</li> <li>你會用哪種測量儀器量度籃球場的長度？捲尺</li> <li>量度籃球場的長度並取數值至最近厘米。</li> </ol>
<p>活動後 / 課堂中</p>	<ol style="list-style-type: none"> <li>教師分享活動答案。</li> <li>重溫相關科學課題：實驗室的測量儀器、pH 值、葉脈等等。</li> </ol>

Create a game with template

小貼士：利用範本製作活動

教師可編輯活動教案以製作切合學校情況的活動，亦可透過回答平台上幾條簡單問題取得適合的範本製作活動：

你會在室內或室外進行活動？

**Where will your game be played?**

**Indoor**      **Outdoor**



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活動長度約為課堂時間、一天或一周？

**What is the target duration of your game?**

**Lesson**      **Day**      **Week**



**Previous**      **Next**

活動會設為個人或分組活動？

**Who will be playing the game?**

**Teams**      **Individual players**





**Previous**      **Next**

你會在活動中管理並作出回饋嗎？

**Would you like to monitor and give feedback during the game?**

**Yes**      **No**



**Previous**      **Continue**