

Classroom Implementation, Evaluation and Reflection

Interactive Educational Games | Grade 2 | Plants & Pollinators

Implementation period	14–18 September 2026
Participants	11 Grade 2 students
Learning environment	Classroom Promethean interactive display
Evaluation evidence	Teacher observations and follow-up project booklet

1. Classroom Implementation

Seven interactive educational games were introduced during the week of 14–18 September 2026 as part of the Plants & Pollinators unit. Each game followed instruction on the relevant scientific concepts using classroom slides. The games therefore provided opportunities to reinforce and apply recently taught content rather than replacing direct instruction. Students played using the classroom Promethean interactive display.

2. Student Engagement and Motivation

Students were very excited to play the games and asked several times whether they could play them again. Two activities attracted particularly strong enthusiasm: Game 3, Race to Grow (plant life cycle), and Game 7, Pollinator Protector (habitat care). These observations suggest that the interactive format encouraged participation and interest. However, enthusiasm alone is not evidence of conceptual understanding.

3. Usability and User Experience

Students generally used the games without teacher assistance. The main exception was Game 1, Build a Plant: students had difficulty placing the seeds. On reflection, the placement target or visual guidance could have been clearer. This distinction matters because difficulty with an interface does not necessarily indicate a misunderstanding of the underlying science.

Design improvement: revise the seed-placement interaction with clearer visual cues, a more obvious target area and feedback that guides another attempt.

4. Evidence of Learning

After the learning activities, students completed a project booklet to demonstrate their understanding of the unit. Nine of the eleven students showed a clear understanding of the topic (81.8%). The remaining two had difficulty remembering the functions of different plant parts.

Indicator	Observation
Students participating	11
Clear understanding in follow-up booklet	9 of 11 (81.8%)

Indicator	Observation
Needed further support with plant-part functions	2 of 11
Most enthusiastically received games	Game 3 and Game 7
Main usability issue	Seed placement in Game 1

These booklet results reflect learning across the whole instructional sequence, including slides, teacher explanations and games. Without a comparison or pre-assessment, improvements cannot be attributed specifically to the games.

5. Reflection on Learning Design

This implementation reinforced the value of placing digital activities within a purposeful learning sequence. Introducing each game after the relevant teaching helped connect interaction to a clear objective. The students' requests to replay the games indicated motivation, while the follow-up booklet offered a separate way to examine understanding.

The seed-placement difficulty in Build a Plant showed why usability needs to be assessed with the intended age group. What seems clear to an adult designer may not be intuitive for a Grade 2 learner. The two students who struggled with plant-part functions also showed that identifying a structure and explaining its purpose are distinct learning demands.

6. Priorities for Improvement

- Improve Game 1 by clarifying where seeds should be placed and testing the revised interaction with students.
- Add retrieval practice and explanatory feedback about plant-part functions, particularly for students needing extra support.
- Use brief pre- and post-activity checks in future lessons to examine changes in understanding more systematically.

7. Professional Learning and EdTech Relevance

This project brought together curriculum planning, AI-assisted game development, classroom implementation and reflective evaluation. It demonstrated that a working digital product is only the beginning: effective learning design requires observation of real users, examination of learning evidence and revision in response to identified needs. The next iteration will prioritise clearer interaction design and stronger support for conceptual recall.