



# Agents of Change Toolkit

## Serious Games to progress schools towards Sustainable Development Goals



### Take Memories, Leave Footprints

This playful activity helps to increase the benefit and demonstrate the value of outdoor learning within the whole school curriculum by the collaborative co-creation of an artwork on school grounds which links the use of an outdoor learning space with the conventional school setting. The artwork to be created is flexible; in this example we use an artistic 'footpath' but the artwork could equally be a mural, tree sculpture, pavement art, etc. The example here should be used as an inspiration for an artwork suitable to your own school, situation, and resources.

This playful activity fits into the ACT change model Step 4 – Enactment.

**Who?**

Pupils are the main creators, staff/parents/visitors experience the artwork

**Where?**

In both the garden and the classroom, as well as common spaces in/around the school

**When?**

During timetabled classes, lunchtime club

**What?**

Art supplies (various)

## You will need

'Stepping stones' and/or pebbles, paint, footprint decals and marker pens (or paper, pens, and sticky plastic suitable for flooring), (optional: chalk)

## How to play

### Setup

Explain the artwork concept to all classes who will be taking part and make clear what physical art or craft materials are available and what they will be used for. Also make clear how the artwork will be collaboratively built up over time and what form each individual contribution will take. Ideally the artwork should a) provide a literal or metaphorical link between the classroom(s) and the outdoor learning space and b) be clearly visible by other staff and visitors to the school.

Pupils' ownership and control over the artwork should be emphasised.

**Example:** *"We are going to slowly build a footpath from our class to the garden which shows how we feel about it – if you want to write a sentence or two of text then write on a footprint sticker and we can stick them down in the corridor. We also have these pebbles that you can paint with faces and place around the border of the garden. Also, as a class we are going to come up with a few words about today's activity to paint onto this stepping stone which we'll place in the garden itself. Next week we can build up the footpath more and you can give me your ideas for how to add to it."*

### Repeated activity each session

As part of lesson planning, each time there is an activity using the outdoor space, time for reflection should be built into the session. This reflection should be guided and will feed into the co-design and production of individual artistic contributions to the overall artwork (e.g. a painted stone). Each individual artefact is then added, by the pupil, to the artwork at the end of the session.

### Repeated sessions build up the activity

Repeat the above activities each time outdoor learning takes place and include reflection on the artwork and process of creation itself in the reflection activities. Where necessary additional modelling and guidance can be included to develop the artwork in the most constructive way.

### Visibility and curiosity

As the artwork begins to appear and is expanded over multiple sessions, it will reinforce the activity outcomes for participating pupils and also start to gain notice by staff and pupils who are not involved, as well as parents and other visitors. This should spark conversations outside of the context of these activities, as well as making the benefits of the activity visible in an interesting way.

### Extension and expansion

After several sessions, the artwork could be redesigned/expanded to both include suggestions from the pupils and also to encourage further, or more in depth, creative exploration of the outdoor space.

### Finishing the activity

You can be flexible about if/when the artwork can be considered to be 'finished'. Artworks could be ephemeral and ongoing (e.g. a chalk footpath which washes away in the rain), or aim to be finished for a particular end point (e.g. a parents' evening). Alternatively, they could be added to for as long as enthusiasm and resources allow.

If the artwork has an end point (perhaps because classes have to take turns using an outdoor learning space so have access for just one term), it is strongly recommended that the pupils are actively engaged in how to document the artwork before it is taken down. For example, in a final

session, pupils could be tasked to make a short video, walking along and curating the footpath before being given their own painted pebbles/footprints to take home. The videos could then be used for advocacy purposes.

### Game adaptations

This playful activity is designed around linking an outdoor learning space with the whole school curriculum, however the mechanics would work equally well for any activity where the focus is on communication across the school community and the purpose of that communication is to demonstrate or inspire. Examples of adaptations could include:

- A school-gate sculpture which captures how the pupils feel about traffic safety and exhaust fumes at drop-off/pickup time. (The main ILO being to encourage parents to not drive right up to the school). ACT THEME: *Capturing diverse perspectives on change*.
- A shared online whiteboard for teachers to quickly doodle their solutions to managing their workloads. (The main ILO being to share best practice and improve efficiency especially for less experienced staff.) ACT THEME: *Agents of change within the confines of heavy workloads/Techniques for remote communication*

# Understanding “Take Memories, Leave Footprints” better

## Game purpose

The overall purpose of this game is to help integrate and recognise a change activity within the whole school curriculum. It fits into the ACT change model Step 4 – Enactment. The game is specifically intended to support using nature to help both wellbeing and learning in a different sort of school environment and increasing experienced connection to nature and environmental issues whilst building on real life skills. This is in the context of use of the garden becoming an integral part of the Health and Wellbeing curriculum and challenging potential resistance (from either parents or leadership) to a change from just teaching in the conventional classroom setting. Furthermore, it makes progress on the learner entitlement to Learning for Sustainability.<sup>1</sup>

## Desired change

The primary desired change is “To have health and wellbeing connected to our garden an integral and valued part of school community life” which falls under several of the ACT priority areas but is particularly relevant to *Addressing the perception of change as 'too risky'*.

## Instructional design

Instructional design focussed primary on communication between different groups (pupils, staff, leadership, parents) and the collaborative modelling and recognition of good practice, leading to an explicit association of the outdoor activities with their benefits. The form taken combines physical engagement with the outdoor space with cognitive reflection leading to a creative and/or emotional response to the activity.

## Intended Learning Outcomes

- Health and Wellbeing connected to our garden is understood and supported by senior management
- Staff and parents see the benefits of the garden-based activities
- Pupils have an increased sense of ownership over the garden
- Due to a change the perception of education in its traditional form in a high school, there is no resistance to teaching and learning outside the classroom setting

## Desired Learning Behaviour

- To associate the importance of nurture for the development of wellbeing with outdoor learning.

Specific learning mechanics are captured in the gameplay loop diagram below.

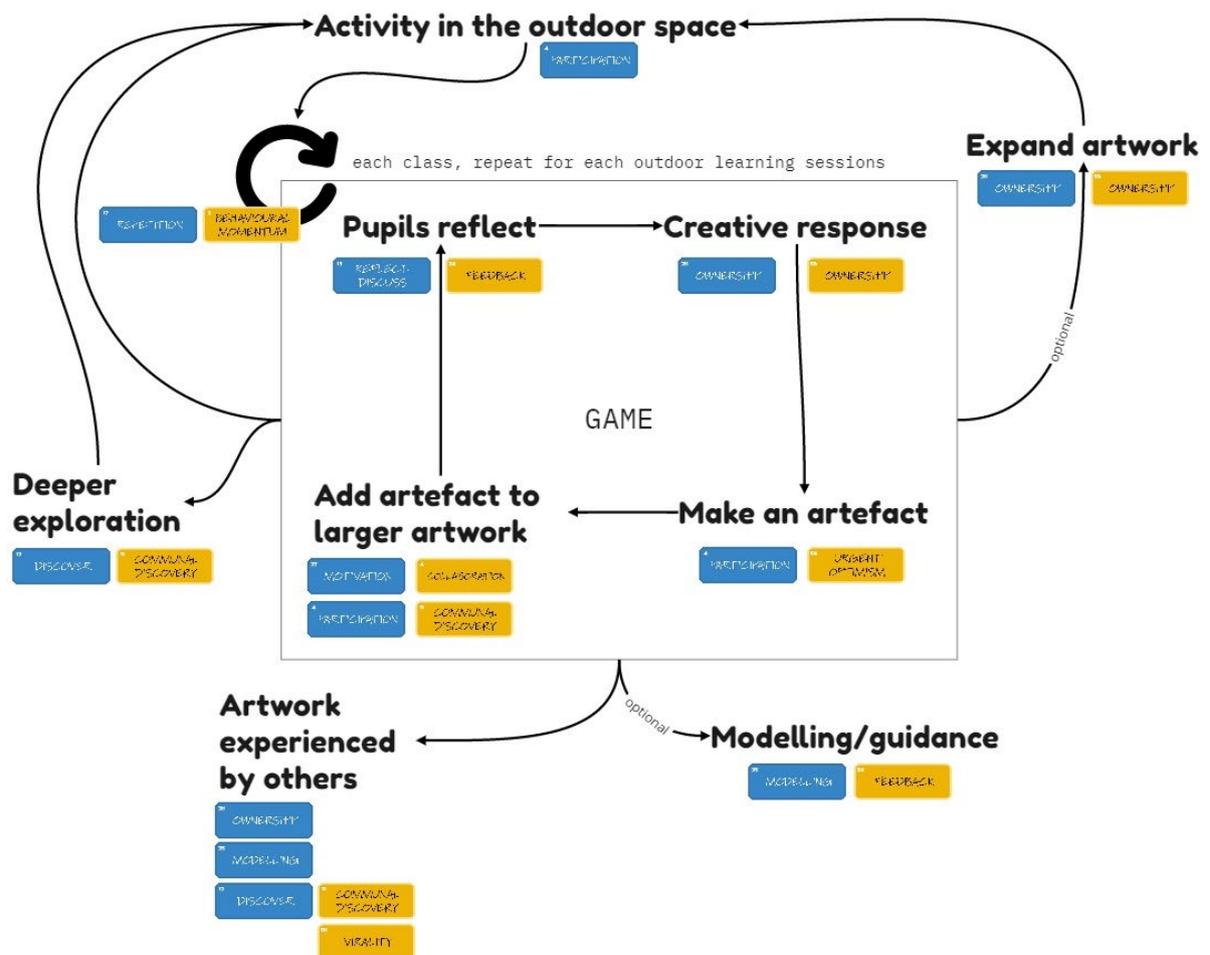
## Gameplay loop

The below diagram shows the gameplay loop for this activity (including reference to relevant out-of-game activities). Specific learning mechanics are shown in blue and specific game mechanics are shown in yellow.<sup>2</sup>

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<sup>1</sup> <https://education.gov.scot/improvement/learning-resources/a-summary-of-learning-for-sustainability-resources>

<sup>2</sup> For more on the game design framework being used here, see Arnab et al (2015) Mapping learning and game mechanics for serious games analysis. British Journal of Educational Technology, 46, 391–411.



The core loop is around repeated reflection and creative response to an activity the pupils have put physical and emotional labour into. The reflection and discussion is embedded into everyday interactions and integrated with curricular links. Creative responses create a sense of ownership over the artwork and the outdoor space itself, with Urgent Optimism contributing to the belief that each person can make a valuable contribution. The resulting artwork is visible across the various school communities, both modelling the value of the outdoor activity and creating further pride and ownership over the artwork and the outdoor space. Repetition reinforces the growth and wellbeing outcomes of the garden activity as well as the learning outcomes of the game.

## Credits

This game was co-designed and developed by Kirstin Fraser, Kerry McQuillan and Daisy Abbott as part of the Agents of Change Toolkit project funded by the Scottish Universities Insight Institute. Explore the whole toolkit at <https://teacher-act.net/>

