

Auckland GHG Invaders (online game – desktop only)



Goal

This game is proposed as an activity to stimulate children's thinking to develop strategies to reduce their own (and their communities) carbon emissions.

Proposed activity

Materials:

- Online game is available to play here: <https://tinyurl.com/GHGINvaders>
- CO₂ diary

Instructions:

- Children must go to the game URL using a desktop/laptop computer.
- First, they will have to watch a 1-minute video about greenhouse gas emissions in Auckland Tāmaki Makaurau.
- Then, they return to the game page to play the game.
- It is a “space invaders’ style game. The goal is to eliminate all the CO₂ molecules that are falling from the sky.
- The game shows a graphic with atmospheric concentrations during school drop-off hours, and kids must reduce this concentration. (As in real life experiment!).
- Ākonga can record the concentration they achieved during the game to compare with other children.
- To win the game, children must have a strategy (e.g., always shooting from one side of the screen).
- Kaiako can guide a discussion by asking what strategy they adopted and make analogies to real-life strategies (e.g., we must have a plan if we want to reduce emissions, because it can be hard to achieve our goals without a plan!). Always trying to encourage them to have an optimistic view of the future.

More activities:

- Ask ākonga to guess the atmospheric concentration of a certain day and hour and record it in the **CO₂ diary**. Once you have the data available from the low-cost sensors, they can be asked to compare how close their guesses were. This is an opportunity to discuss changes of concentration throughout the 24-hours of the day.
- Ask ākonga to create a graphic similar to the one they are shown in the game with the atmospheric concentrations in the y-axis and time of the day in the x-axis, using their game scores.

