

Mission: Protect our oceans



Learning opportunities and curriculum fit

Little Inventors provides great opportunities for students to develop their creative and problem solving skills.

Learning objectives and outcomes

Through the powerpoint presentation:

- Students will begin to see that inventions are all around us and invention is a way to create solutions to problems or challenges.
- Students will discuss topics around oceans that strongly link to the curriculum in every grade: e.g. why oceans matter including the incredible biodiversity in oceans, the role of oceans in the water cycle and carbon cycles; their connection to the ocean (e.g. through rivers if they are not on the coasts); and threats to oceans including climate change and pollution.

Students will:

- Generate ideas for inventions
- Describe how they are geographically connected to the ocean and their role in protecting them
- Understand the importance of oceans
- Describe the steps involved in creating an invention
- Design an invention to solve a problem related to our oceans and predict how this will be useful in solving the identified problem
- Articulate and communicate their ideas in drawing, writing and speech for an audience, as well as plan and evaluate their writing



Curriculum fit

By promoting creative thinking and problem-solving skills, Little inventors offers many opportunities to link to several curriculum areas in Kindergarten through to Grade 10, in particular:

Science and technology

Little Inventors is a great way to invite your students to use scientific and technological processes to begin to understand the oceans and our role in the interactions we have with them. Using creativity and imagination, Little Inventors allows students to design products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. Students learn how to become resourceful and innovative. The resource offers students opportunities to:

- Use creative thinking, inquiry, problem-solving, decision making and innovation to create an invention.
- Increase knowledge of scientific concepts: living things, habitats, sustainable ecosystems, biodiversity, biogeochemical cycles (e.g. the water cycle), human impacts (e.g. threats) to oceans (including climate change and pollution (e.g. through erosion)), air and water, water systems, forces (e.g. buoyancy), acids and bases (e.g. acidification) and motion.
- Develop questions, identify a problem and use innovation to suggest a solution.

Art (Visual Arts)



Little Inventors fully support the arts curriculum by encouraging students to produce creative work and explore their ideas using drawing, design and crafts and to learn about artists, craft makers and designers. The resource offers students opportunities to:

- Use drawing to develop and share their ideas, experiences and imagination.
- Be provided a range of materials to use in the visual representation of their design – pencils, pastels, textured materials, paint, etc. to allow for creativity and self-expression, and in older students, to increase their learning around the elements of design (e.g. line, shape and form, space, texture, colour).
- Make 3-D versions of their design using various materials and processes to create a visual art piece.
- Be exposed to the work of craft makers and designers.

Literacy and Language

Little Inventors offers opportunities to support composition, and specifically for students, to articulate and communicate their ideas in speech and writing for an audience as well as plan and evaluate their writing. The resource offers students opportunities to:

- Use language to represent their idea.
- Write clearly, accurately and coherently, adapting their language and style in and or a range of contexts, purposes and audiences (e.g. students could be challenged to advertise their design through media text).
- To present their designs orally to the rest of the class, or within smaller groupings in the classroom and be able to explain clearly their idea and design choice.
- Journal/reflect on why they chose the particular design and how it relates to their experiences.