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## Learning opportunities

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

## Learning objectives

- To understand that inventions are all around us, that invention is a way to create solutions to problems or challenges.
- To learn about microgravity and the challenges faced by astronauts living in space, their training and about space travel.
- To identify potential problems/areas where an invention could be useful.
- To make hypotheses and evaluate their invention ideas.

## Learning outcomes

- To generate ideas for inventions.
- To demonstrate understanding of living in space and the International Space Station, of the training and requirements of astronauts in orbit.
- To examine the contributions of Canada and additional countries to space exploration.
- To explore the concept that technologies allow humans to live in areas that they are not adapted to.
- To demonstrate an understanding and application of health related physical fitness on earth or in space.
- To articulate and communicate their ideas in drawing, writing and speech for an audience, as well as plan and evaluate their writing.
- To start using scientific methodology through making predictions, planning and evaluating.

# Curriculum fit

By promoting creative thinking and problem-solving skills, Little inventors offers many opportunities to link to several curriculum areas in elementary schools, in particular:

## Science

Hypothesising, experimenting, evaluation based on results and drawing conclusions are all scientific skills which run through all key stages. Little Inventors is a great way to invite your students to work and think scientifically in the context of space exploration and living. Students will have opportunities to:

- observe the world around them and space environment.
- learn about types of forces, friction, gravity and microgravity.
- record their findings.
- come up with questions and use their observations to suggest answers.

## Art and Design

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

- use a range of materials creatively to design and make products.
- use drawing to develop and share their ideas, experiences and imagination.
- Learn about the work of craft makers and designers and making links to their own work.

## Design and Technology

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.**

## Literacy

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. It offers the following opportunities:

- write clearly, accurately and coherently, adapting their language and style in and or a range of contexts, purposes and audiences.
- use discussion in order to learn; they should be able to elaborate and explain clearly their understanding and ideas.