




Blast Off with Gizmos: Coding Adventure on Mars for Grades 4-6

Convention, 2026






What are Gizmos?



Coding Adventure
to Mars!



Integrate Gizmos in
lessons and
explore resources



Session Objectives

Computer Science



ORGANIZING IDEA

Computer Science: Problem-solving and scientific inquiry are developed through the knowledgeable application of creativity, design, and computational thinking.

New Learn Alberta



Lesson Model

Learning Outcomes:

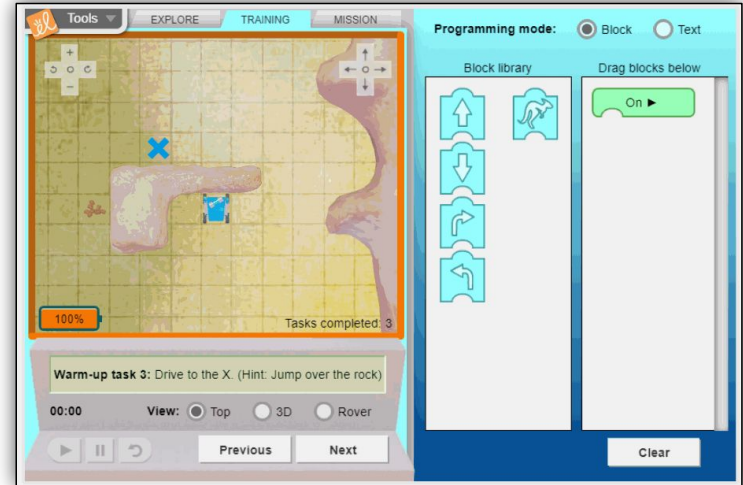
Gr 4 - Examine and apply design processes to meet needs.

Gr 5 - Apply design processes when creating artifacts that can be used by a human or machine to address a need.

Gr 6 - Examine abstraction in relation to design and coding, and describe impacts of technologies.



Programmable Rover



Best Practices for Teaching with Gizmos

❑ Foster Inquiry and Discovery

- Permit students to ask “What if...” questions
- Challenge students to predict outcomes
- Use leading, probing questions to spur thinking
- Have students construct arguments to justify their answers



❑ Develop higher level thinking skills

- Provide scaffolding for problem solving
- Require that students support explanations with evidence
- Guide students to find patterns

❑ Incorporate opportunities for thinking through writing

- Customize lesson materials as needed
- Include vocabulary as part of the Gizmo lesson

❑ Share the classroom dynamics

- Utilize a variety of instructional settings
- Allow students to control the Gizmo



Challenge

Create a program for one of the training tasks to show the difference between **optimized code** and **unoptimized code**.

Explain.



Computational Thinking

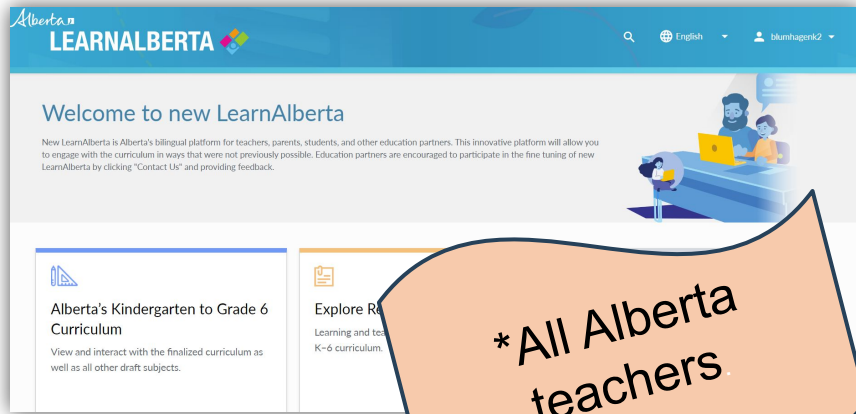
Defined as a problem-solving approach that uses creativity.

- Breaking a task into smaller parts
- Finding patterns and similarities in tasks
- Identifying important details
- Designing instructions



Two Ways to Access Gizmos

New Learn Alberta Site



*<https://curriculum.learnalberta.ca/home/en>

ExploreLearning Gizmos Site



Go-EL.com

Alberta EL Gizmos Site

bit.ly/AlbertaGizmos

Explor^olearning Alberta

Explor^o

Alberta

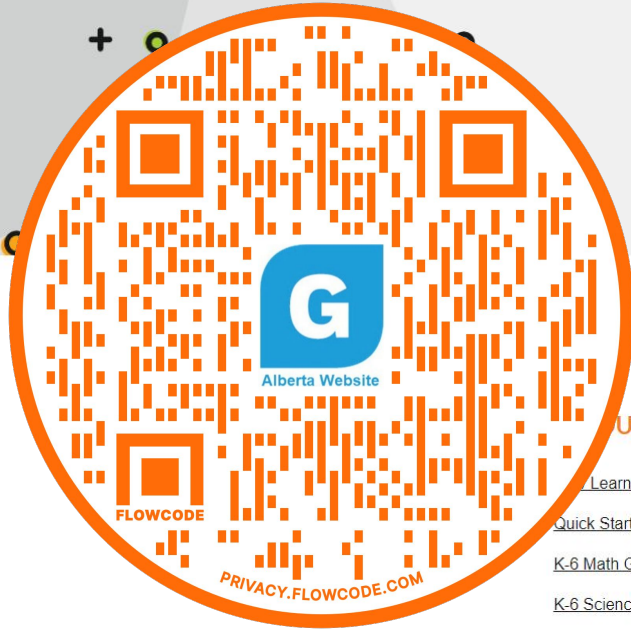
Resources

RESOURCES IN ENGLISH

- [LearnAlberta](#)
- [Quick Start Guide](#)
- [K-6 Math Gizmos Alignments with Curriculum](#)
- [K-6 Science Gizmos Alignments with Curriculum](#)
- [Frequently Asked Questions](#)

RESSOURCES EN FRANÇAIS

- [New LearnAlberta](#)
- [Guide de démarrage](#)
- [M-6 Corrélation des Gizmos avec le Curriculum de math](#)
- [M-6 Corrélation des Gizmos avec le Curriculum de sciences](#)
- [Foire aux Questions](#)





For more information about
Gizmos or to request a
complimentary account



<https://tinyurl.com/Gizmos2026ATA>

Contact Information



Karen Blumhagen

Implementation Coordinator

Karen.Blumhagen@explorelarning.com

866-882-4141 Ext.430

Alberta@explorelarning.com

