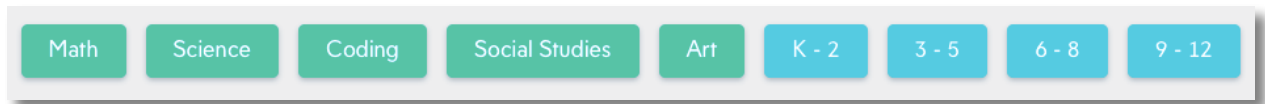# Activities and Design Challenges

Discover all kinds of **amazing** lesson ideas and design challenges at **Sphero Edu.**
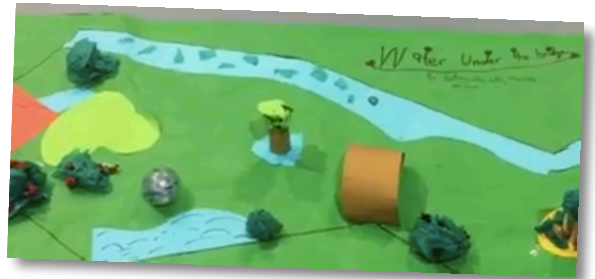Choose from a list of categories or explore the possibilities found on this page:

https://edu.sphero.com/cwists/category

Math	Science	Coding	Social Studies	Art	K - 2	3 - 5	6 - 8	9 - 12

Here are some design challenges we have discovered and are eager to explore with learners:

Sphero Mini Golf:
In this activity students collaborate to create a Mini Golf course which then can be played by coding a Sphero from the Tee to the Green. Grades K-8.
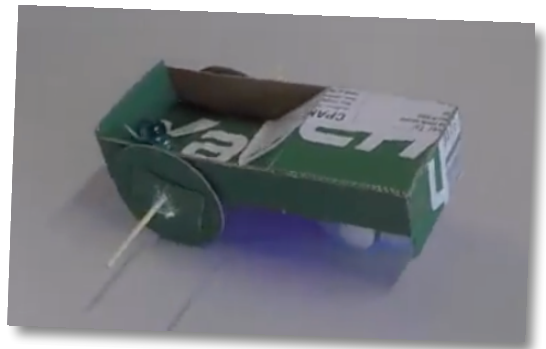
https://edu.sphero.com/cwists/preview/12702x

Olympic Curling with Sphero:
Students learn about speed, distance, velocity, as well as "if/and" statements and basic rules to the sport of Curling. Grades K - 12+.

https://edu.sphero.com/cwists/preview/12909x

This challenge, called *Project Vahana,* suggests using recyclable materials (cardboard, tape, skewers, cups, rubber bands, Pringles tubes, toothpicks) to design chariots. Grades K - 12+.
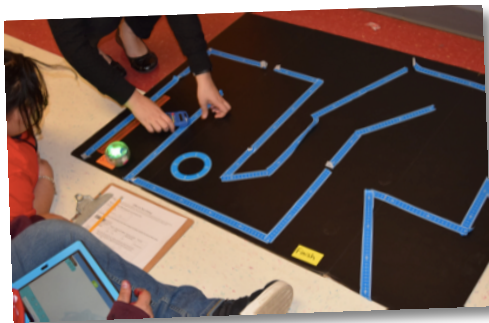
https://edu.sphero.com/cwists/preview/12921x

K'nex Chariot Challenge:
A design challenge where learners
engineer Sphero drawn chariots and write code to
compete in chariot races. Grades 4 - 6.

https://edu.sphero.com/cwists/preview/13271x

Crazy Robot Cars
In this activity students learn how to collaborate
with others to design, construct and test vehicles
powered by Spheros. Grades K - 7.

https://edu.sphero.com/cwists/preview/12699x

Lunar Maze Challenge - NASA has asked your
team to navigate a rover in search of ice on the
Moon for future human colonies! Program your
rover to autonomously navigate the lunar maze.
Grades 6 - 8.

https://edu.sphero.com/cwists/preview/13154x

Alien Pop
Students are given a cup and various building
materials to create a way for the Sphero to drive
the cup and pop balloons taped to a wall. Grades
4 - 12+.

https://edu.sphero.com/cwists/preview/13157x
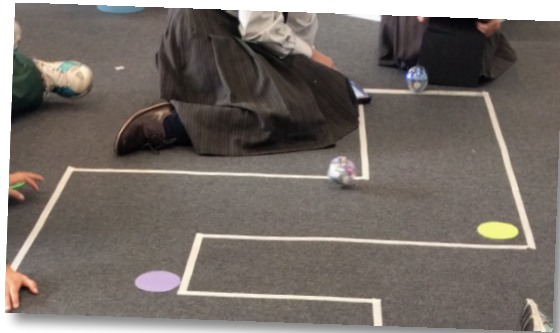
The Strolling Dead
Can Sphero navigate through a sea of meandering zombies to the hospital for much needed medical supplies? Can he then make it safely to the protection of camp without becoming infected? The survivors behind the gates won't wait for long and fresh supplies are your ticket in! Test your driving and coding skills in this multi-phase mission. Grades 5 - 12+.

https://edu.sphero.com/cwists/preview/4842x

Check out these websites for more activities and design challenge ideas:

Spheros in the Classroom shares Sphero lesson ideas involving mathematics, art, design and coding. Grades K - 3.

https://elenikyritsis.com/2016/08/20/spheros-in-the-classroom/

On Point for Kids shares a collection of visuals and ideas to inspire Sphero engineering and design challenges such as obstacle courses, chariot and competition ideas, and art ideas. Grades K - 6.

https://onpointforkids.com/2016/05/25/sphero-ideas-for-teachers/