

# Super Challenge - Variables

Lesson time: 30 Minutes

## LESSON OVERVIEW

In this lesson, students will be challenged to dig deep into what they have learned throughout their journey to solve a handful of complex puzzles.

### TEACHING SUMMARY

#### Getting Started

[Introduction](#)

#### Activity: Super Challenge - Variables

[Super Challenge - Variables](#)

## LESSON OBJECTIVES

### Students will:

- Create programs that utilize repetition to create gorgeous designs
- Decompose large, difficult puzzles into manageable pieces
- Use variables to capture patterns in complex tasks

## GETTING STARTED

### Introduction

Remind your students of the lessons that they have done with variables previously.

- What kinds of things are variables good for?
  - How does it help to move by "length" amount using artist?
  - Why is it helpful to have the bee grab "nectarUnits" of nectar?
  - Can you use variables as numbers in math equations?
- Next, remind your students that this stage is intended to be very difficult and most puzzles will take several attempts to solve.

## ACTIVITY

### [Super Challenge - Variables](#)

This lesson explores the use of variables as a way to quickly change many values at one time. Not only will the students be dealing with the looping of designs and repetition of angles, they'll also be doing math on variables. It can be helpful for them to have paper and pencil to figure out values as they go. Also, let them know ahead of time that there will likely be some puzzles that confuse or frustrate them. This is normal, and expected. Students should prepare themselves for persistence and perseverance.



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