

# Ozobot: Growing Patterns Challenge

## ***Created by***

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## ***Topics***

Mathematics

## ***Ages***

Grades 4-6

## ***Duration***

60 minutes

# Ozobot: Growing Patterns Challenge

*Note: This lesson uses OzoCodes to program the robot. If you would like to use Ozobot Bit and OzoBlockly instead, please take a look at the lesson "Ozobot Bit: Growing Patterns Challenge"*

This lesson is designed as a culminating or review activity, making use of knowledge of growing patterns.

**Lesson Duration:** about 60 minutes

## **Materials:**

- large sheets of blank or grid paper
- rulers
- thick, black markers
- Ozobots
- copies of the planning sheet for each student

Students will create an Ozobot course that contains a growing pattern. Upon completion of this activity, students should be able to explain how they used a growing pattern within the course they created.

## **Lesson suggestions:**

- Have students create a recursive pattern for which they can explain the rule.
  - Review that a recursive pattern rule is a pattern rule that tells you the start number. As well, the rule tells you how the pattern grows as the sequence continues.
  - For this part of the activity, students can use the planning sheet as a guide and record of their work.
- You may wish to discuss with students the possibilities of how to represent their growing pattern in an Ozobot course. (You may only do this to provide scaffolding to students who need more support)
- Use the student and teacher feedback sections to review student progress prior to students creating their course, providing an opportunity to check in with you.
- Consider that some students might need a grid on which to draw their Ozobot course.

# Ozobot: Growing Patterns Challenge

(Student planning sheet)

My recursive  
pattern:

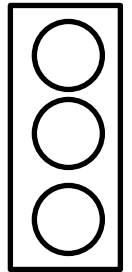
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, ...

The rule is: \_\_\_\_\_

How will you show your growing pattern in your Ozobot course?

**Reflection** – Fill in the traffic light and explain why you gave yourself a green, yellow, or red light.

Green	I completed the task and feel that I have successfully incorporated my recursive pattern into my Ozobot course.
Yellow	I completed the task and am unsure if I successfully used my recursive pattern into my Ozobot course.
Red	I am unsure if I included my recursive pattern correctly in my Ozobot course.



\*Share your planning sheet with your teacher prior to working on the good copy of your Ozobot course.

**Teacher Feedback:**

Comments:

