

Code-a-Pillar

Kindergarten

Lesson Plan	Coding Tool Code-a-pillar
	Cross-curricular Literacy & Mathematics
 Big Ideas To learn the different segments and directions of the <i>Code-a-pillar</i>. To use directional/positional language to describe an object's location. To problem solve by rearranging the directions in order to reach a goal. Learn about caterpillars, what they eat. 	 Specific Expectations Demonstrate an ability to use problem- solving in a variety of contexts, including social contexts. Participate actively and regularly in a variety of activities that require the application of movement concepts Use technological problem-solving skills, on their own and with others, in the process of creating and designing (i.e.: questioning, planning, constructing, analysing, redesigning, and communicating). Apply the mathematical processes to support the development of mathematical thinking, to demonstrate understanding, and to communicate thinking and learning in mathematics, while engaged in play-based learning and in other contexts.

Description

In this lesson, students will use the directional segments on the *Code-a-pillar* in order to reach the goal. The objective is for the students to sequence a program for the *Code-a-pillar* to successfully obtain all the necessary items and feed the *Code-a-pillar* with the proper food.

 Materials Item Cards (Provided) <i>Code-a-pillar</i> 	 Computational Thinking Skills Problem Solving Planning & Sequencing Critical Thinking





Introduction

- The goal of today's activity is to rearrange the sequence of the *Code-a-pillar* in order for it to obtain all the items of food.
- The item cards will be distributed throughout the students and each will get their turn to rearrange the *Code-a-pillar* for it to reach the next item card.

Action

- Ask the students if they have ever seen a caterpillar. Talk about what it looks like.
- Explain that after hatching caterpillars are very hungry and spend their first two weeks eating most things in their path. They eat lots in order to grow big very quickly. There are many kinds of caterpillars but for most, what do they eat? Ask them to name different types of things they think caterpillars eat (e.g.: leaves, plants, fruits, etc.)
- Hand out the item cards and have the students sit in a square (on the floor or table)
- Introduce the *Code-a-pillar* to the students.
- Explain how the *Code-a-pillar* works by rearranging the parts.
- Review the arrows (up/down, left/right)
- "As we mentioned earlier, the caterpillar eats a lot of food to be able to grow and eventually become a butterfly"
- Explain the activity showing an example of arranging the *Code-a-pillar* to go towards a student with an item card. Once the *Code-a-pillar* reaches the student, it is then their duty to rearrange the sequence for the *Code-a-pillar* to make its way to another student.
- Repeat until all students have rearranged the *Code-a-pillar*. The caterpillar will now be full and ready for the next cycle.



Consolidation/Extension

Wrap-Up:

• Once all the students have had a chance to rearrange the *Code-a-pillar*, you can explain how the caterpillar has eaten enough food over a period of weeks and it is now ready for the next cycle of a butterfly's life.

Variations:

- Read the book "The very hungry Caterpillar". Create item cards that correspond with the food item in the storybook. Proceed by rearranging the sequence to reach the student with the corresponding item.
- Go into details in regard to different kinds of caterpillars as certain ones only eat specific leaves.

Assessment

- Observe the correct use of directions and rearrangement of sequence.
- Are students sharing? Are students working together collaboratively?
- Ask students if they can name two of the leaves that the *Code-a-pillar* ate.

Additional Resources

- Cited images attached
- *Code-a-pillar* image sourced from: www.toysrus.ca/en/Fisher-Price-Think-and-Learn-Code-a-pillar/04179E0C.html