

Overview

In coding, an **algorithm** outlines the steps to a task. Algorithms are made up of sequenced commands. A **sequence** is the order that commands are performed by a computer.

Instructions

In this activity, kids will create a snowflake and write their algorithm for creating it. They will give their algorithm to a partner to try and replicate their snowflake. Kids will need a writing utensil, scissors, copies of the Snowflake algorithm (page 2), and a square paper (template on page 3) for this activity.

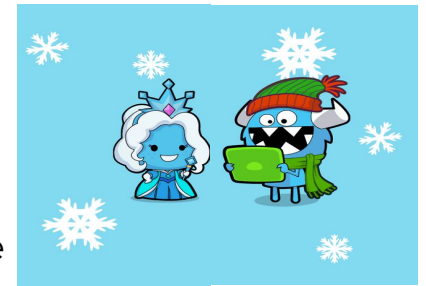
1) Hand out the Snowflake Algorithm worksheet. Let your kids know that they will create their own snowflake and write down the algorithm (steps) another person should follow to create their own. Let them know that they should pay close attention to the sequence of steps.

2) Have your kids cut the square template out and fold it into fourths using the dotted lines. They can add this step to their algorithm.

3) Demonstrate how to draw a snowflake design to the folded paper and emphasize to kids that they'll have to cut out their design, so they may want to keep it simple. They can add these steps to their algorithm using the words from the word bank.

ALGORITHM

steps to
complete
a task



Instructions

4) Have your kids cut out their design and point out that they should be careful not to cut out all of the folded sides so that their snowflake stays intact. Once they're done, they should open their snowflake and see their design.

5) Have kids add more details to their algorithm before handing it off to a partner to try and replicate. The partner will need a new square paper.

Discussion: Reflect on the activity by asking kids if their partner was able to replicate their snowflake? Why is it important for them to add details to their algorithm?

Luckily no two snowflakes are alike!

Snowflake Algorithm:

Write or draw each step to make your snowflake.

Use the Word Bank and include details!

Word Bank			
Size	Shape	Location	
Big/ Large	Circle	Top	Left
Medium	Half circle	Middle	Right
Small/Tiny	Triangle	Center	On
	Square	Bottom	Next to
	Rectangle	Outside	Inside
		Below	Underneath

Step 1:

Step 2:

Step 3:

Step 4:

Step 5:

Step 6:

Snowflake Template

Cut the snowflake out on the solid lines. Fold on the dotted lines.

