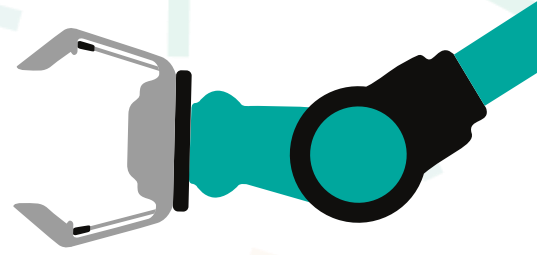




DISCOVERTECH



Let's learn about Algorithms!

What is computational thinking?

Computational thinking is a creative way of thinking that allows individuals to be systematic problem solvers. Coding helps children to develop computational thinking skills.

What is Algorithm?

An algorithm is a set of steps to follow in order to complete a task or solve a problem.

In coding, algorithms provide step-by-step instructions for computer programmes to complete various tasks such as calculations or processing data.

Help your child develop this coding concept at home!

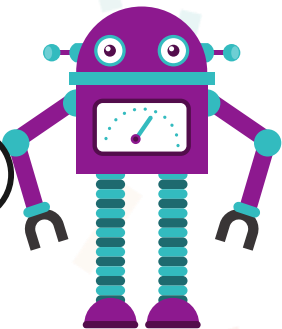
Go through a cake recipe with your child. A cake recipe is an example of algorithms that guide you through the process of baking a cake!

PHP

...

C#

HTML



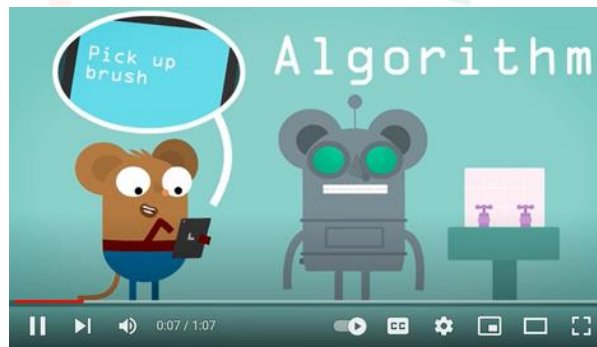
References:

1. Heather Lavigne, Ashley Lewis Presser, Deborah Rosenfeld, Marisa Wolsky, And Jessica Andrews. (n.d.). Creating a Preschool Computational-Thinking Learning Blueprint to Guide the Development of Learning Resources for Young Children. National Science Teaching Association. Retrieved October 6, 2021, from <https://www.nsta.org/connected-science-learning/connected-science-learning-april-june-2020/creating-preschool>

2. What is an algorithm? (2020, December 9). BBC Bitesize. Retrieved October 14, 2021, from <https://www.bbc.co.uk/bitesize/topics/z3tbwmn/articles/z3whpv4>

WATCH ME: BBC LEARNING - WHAT IS AN ALGORITHM

Find out more about
Algorithm through the
example of brushing your
teeth!



Scan me to
watch the video!

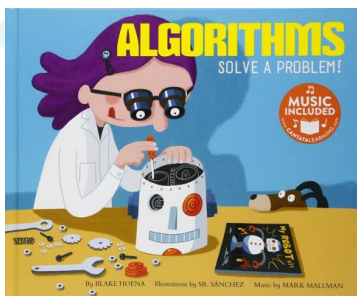


<https://go.gov.sg/bbclearning-algorithm>

References: Rumpus Animation. (2015, July 8). BBC Learning - What Is An Algorithm. YouTube. Retrieved October 14, 2021, from <https://www.youtube.com/watch?v=Da5TOXCwLSg>

<https://www.youtube.com/watch?v=Da5TOXCwLSg>

RECOMMENDED BOOKS



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TITLE: ALGORITHMS: SOLVE A PROBLEM!

AUTHOR: BLAKE HOENA

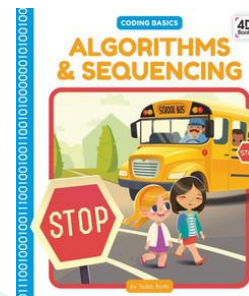
ILLUSTRATOR: SR. SANCHEZ

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TITLE: ALGORITHMS & SEQUENCING

AUTHOR: TEDDY BORTH

SECTION: CHILDREN NON-FICTION

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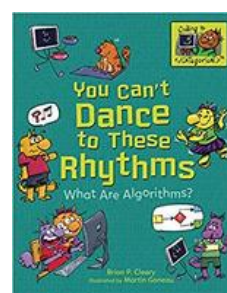
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TITLE: CODING 1, 2, 3

AUTHOR: JANET SLINGERLAND

LINK: <https://nlb.overdrive.com/media/3965032>



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TITLE: YOU CAN'T DANCE TO THESE RHYTHMS

AUTHOR: BRIAN P. CLEARY

LINK:

<https://nlb.overdrive.com/media/4840375>

Escape the Bear!

CODING AT HOME



MATERIALS

- Activity sheet provided below
- Printed arrows (optional)

TIPS FOR PARENTS

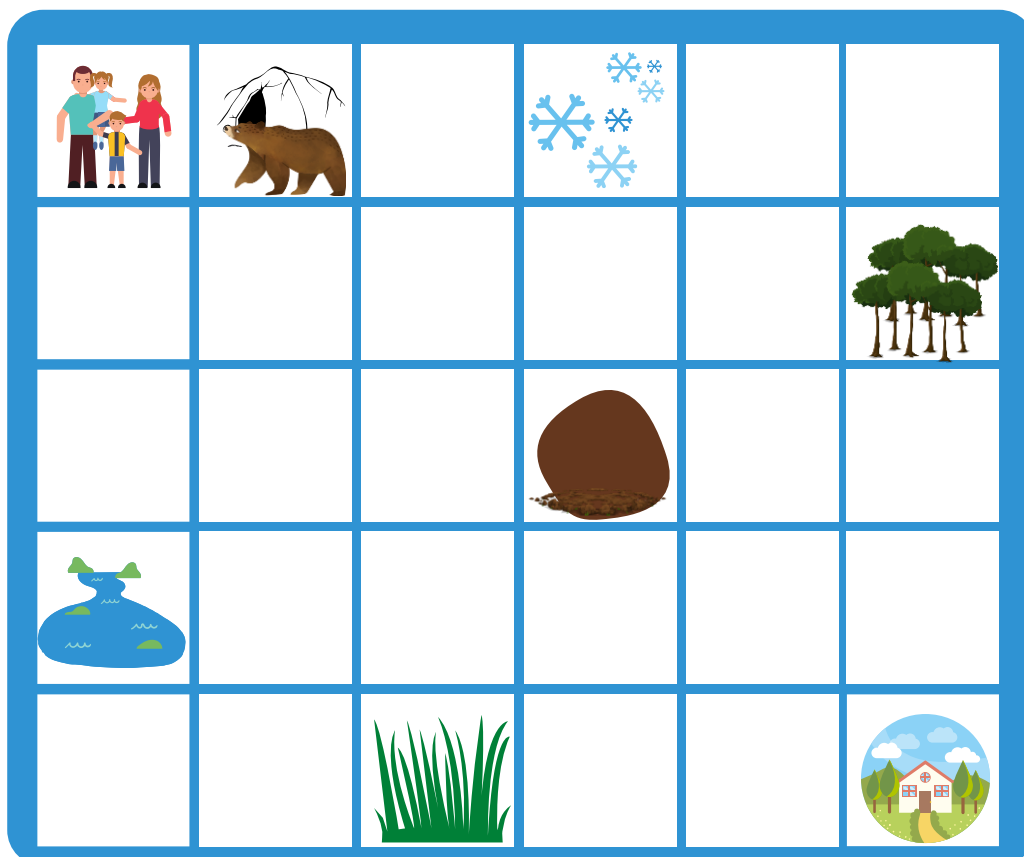
Have fun reading the story of "We're Going on a Bear Hunt" by Michael Rosen. Introduce the concept of sequencing as you guide your child to remember the sequence of obstacles met! Recall the concept of directions in order to plan the algorithm to escape!

COMPUTATIONAL SKILLS:

- ✓ ALGORITHM
- ✓ SEQUENCING

HOW TO PLAY

Help the family escape from the big, brown bear and reach home as fast as they can. Avoid the obstacles along the way! Challenge yourself to create different sets of algorithms by using directional signs - up, down, right and left.



References:

1. Deirdre. (2018, October 21). Coding Activity- We're Going on a Bear Hunt Algorithm. JDaniel4s Mom. Retrieved October 14, 2021, from <https://jdaniel4smom.com/2016/02/coding-activity-going-bear-hunt-algorithm.html>