Food Code		JK/SK
Lesson Plan	Coding Tool	Unplugged

Big Ideas

2. demonstrate independence, self-regulation, and a willingness to take responsibility in learning and other endeavours

8. develop movement skills and concepts as they use their growing bodies to move in a variety of ways and in a variety of contexts

13. use the processes and skills of an inquiry stance, such as planning, predicting and observing

24. use technological problem-solving skills in the process of creating and designing, such as questioning, planning, constructing and analysing

Specific Expectations

2.1 demonstrate self-reliance and a sense of responsibility by making choices and decisions on their own

8.4 demonstrate control of small muscles when using a variety of materials or equipment, such as scissors, glue, and a pencil)

13.4 communicate results and findings from individual investigations by explaining or showing how they made their structure

24.3 make predictions and observations as part of the process of creating and designing

24.4 select and use tools, equipment, and materials to construct things

Description

In this lesson, students will learn a basic understanding of what coding is and how a computer uses it to complete an action. Your students will learn to create a simple picture-based code to show the order of ingredients to assemble either a hamburger, an ice cream or a pizza. Then, they will follow that sequence of code to create their own craft.

Materials	Computational Thinking Skills
• Handouts • Scissors (if students are cutting out the pieces themselves) • Glue sticks • Pencil, crayon, or other writing tool	• Algorithm • Sequences

Introduction

What is an algorithm? What is a sequence?

In coding, an algorithm is a set of steps a computer uses to do a task. Unlike humans, computers cannot make their own decisions, so they need to be given these instructions to do an action. We need to write the algorithm in a certain order that we want the computer to work to make sure that they do their task correctly. When something is put in an order, we call it a sequence.

Think of coding like making a hamburger. You need to make it by following steps in a certain order, such as starting with the bottom bun and finishing with the top bun. Also, depending on what you want on your hamburger and how you like it, your steps to make your burger might be different from another person. Maybe you would include pickles on your hamburger, but it is possible that another person would remove that step if they do not like pickles.

Many other foods can be made in a certain order and can also resemble coding, such as ice cream or a pizza.

Action

In this lesson plan, your students will create their own hamburger, ice cream or pizza craft by planning out a sequence of steps by gluing the ingredient icons on the workplace area of the handout. Then, they will follow their algorithm while gluing the ingredients on their handout to complete their food.

1. Let the students decide what food they want to make (Hamburger, ice cream or pizza). Then, hand them a copy of the ingredients and the worksheet for that food.
2. Cut out the little square icons of each ingredient on the worksheet.
3. If they are doing a hamburger, grab the bottom bun icon and place it in the first sequence box. Then, grab the top bun icon and place it in the last sequence box.
4. If they are doing an ice cream, grab the waffle cone icon and place it in the first sequence box. Then, grab any of the topping icons and place it in the last sequence box.
5. If they are doing a pizza, grab the pizza dough icon and place it in the first sequence box. Then, grab any of the topping icons and place it in the last sequence box (it is recommended to NOT choose the tomato sauce or cheeses since they may cover the rest of the toppings if placed last).
6. Choose 5 more ingredient icons you want on your food and place them in the remaining box in the order you would like to assemble it.
7. Once you have organized the icons the way you want, glue them in their sequence boxes.
8. Look at the sequence of steps you have created with the icons and cut out your ingredients from the ingredient page.
9. Once all the needed ingredients are cut out, glue them in the space area under your sequence. Remember to assemble your food according to the order you have previously glued the ingredient icons, from left to right.
10. Write your name in the space provided above the work area.

You can let the students bring their foods home, or you can display them in the classroom.

Consolidation/Extension

Wrap Up

- A code is a set of steps a computer will follow, like a recipe to make a hamburger, ice cream or pizza.
- A sequence is something that is put in a particular order.

Extension

You could test your students by having an already-made food (it could be borrowed from one of the students or made by yourself) and asking them to say the sequence of ingredients out loud to make that food in the correct order.

Assessment

You can assess your students on their capabilities to form and follow their sequence.