Barefoot

from Computing at School | BT

Shopping list

Overview

In this activity, children will learn to identify the ingredients they need to make a cake and create a shopping list. In doing so, they develop their skills of abstraction. If you wish, you can also use the activity to develop their understanding of algorithms.

Concepts:

Abstraction   **Algorithms**

Age group: 5 – 11
Duration: 15 – 45 minutes

Materials you will need:

✔ Recipe worksheet
(Available to download)

Alternatively, use your child's/children's favourite cake recipe, either from your own cookbook or online (to abstract your own list of ingredients)

What will your child/children learn?

Abstraction – Abstraction is about simplifying things – identifying what is important without worrying too much about detail.

Algorithms – An algorithm is a precise sequence of instructions, or set of rules, for performing a task.

The behaviours **creating, persevering, collaborating** and **tinkering** (changing things to see what happens), are approaches to learning that are encouraged throughout our home activities.

Getting started

1) Explain to your child/children that they will be creating a shopping list to buy the ingredients for making a cake.

2) Explain that they will be developing their abstraction skills. They will be using abstraction by picking out the important information they need to make their cake and ignoring unimportant detail.

3) Explain: Abstraction is choosing the important information (e.g. the ingredients from the recipe) and ignoring the unnecessary detail.

Their turn

1) Look through cookbooks, websites or magazines with your children. Let them choose between two or three recipes that look fun and that will be appropriate for their age. Remember – only share the method section of the recipe.

2) Alternatively, use the differentiated worksheet and explain that they will need to look at the recipe on the left and select the important information (the ingredients) for their shopping list. Recipe 2 has more detail than recipe 1 so you can select which one to use depending on the age and reading ability of your child/children or progress onto Recipe 2 after completing Recipe 1 on another day.

Time to talk

Explain that an algorithm is a sequence of instructions to get something done (e.g. the recipe is an algorithm for making the cake, as it is a list of instructions for humans to follow to make the cake).

More ideas

- Baking builds on many maths concepts. You could discuss the quantities and equipment required. You could provide prices of ingredients and ask your child/children to calculate how much money they would need to buy their ingredients. How much change would they get from £10? Whilst baking with your child/children you could talk about how you are weighing the ingredients or how you are measuring the liquid in your recipe.

- As an alternative activity, you could abstract the equipment needed rather than the ingredients.

- Learning to follow the steps of a recipe (recipes are a non-fiction text) is an important reading skill. Baking improves vocabulary, you may need to talk about some of the words used in a recipe (e.g. words like beat, whip, cream, fold and sift).

- Have fun with scientific learning while baking. Simply try mixing a teaspoon of baking powder into a cup of hot water to make a chemical reaction. When you add hot water to baking powder, the water reacts with the acid of the baking powder to produce carbon dioxide bubbles. As long as the baking powder is fresh, you will definitely produce bubbles.

- Create your own "famous chef" instructional video together on how to bake a cake.