Mad Food Science **Additives & Preservatives**



Fun Food Experiments with Belinda Smith.

Many additives and preservatives have been proven to affect mood, behaviour, concentration, sleep and trigger many other health issues. They are usually shown as numbers in the ingredients on a packet. In this Mad Food Science Experiment, you will explore the world of additives and preservatives, what they do, how to look out for them, and what they are made from.

DISCOVER

Effects on Bod

Fink Level

SPECIAL

Experiment Overview

Using one or more of the resources listed below, research the information and complete the Observations Record.

Preparations

- Read the background information sheet on the following page
- Access one or more of the following resources: Chemical Maze App, Books Additive Alert or Chemical Maze, Google, website <u>www.fedup.com.au</u>
- Obersvations Record (attached)



- 1. We're going to look at 6 additives or preservatives in this experiment. Using your understanding from the background information sheet, predict how many are likely to be natural -v- synthetic (artificial), and note whether you feel this is important or not. Record your predictions on the Observation Record.
- 2. Use one or more of the resources above to research the additives and preservatives in the table on the last page of the Observation Record
- 3. Answer the questions on the Observation Record.
- 4. Submit your Observations to **belinda@therootcause.com.au**

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Chemical Maze App

Additives & Preservatives Background Information



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What is an additive?

An additive is a substance that has been added to a food to make it taste better or improve the appearance of the product.

What is a preservative?

A preservative is a substance that is added to a food to make it last longer (i.e. preserve it), so it can sit on the supermarket shelf and in the pantry longer.

What is the function of an additive or preservative?

The broad question of what is an additive or preservative is explained above. But each individual additive or preservatives serves a specific function or purpose. Sometimes this may be to colour it, sometimes it may be to enhance flavour etc.

Are additives and preservatives natural?

Some additives and preservatives are derived from a natural sources, such as from an animal, insect or plant. However, due to the sheer volume of food production, today most additives and preservatives are are made synthetically in a chemistry lab.

What does No Artificial Additives or Preservatives mean?

This simply means the additive or preservative is derived from using an animal or plant source at the start. It is still produced in a chemistry lab. Many sources tend to feel that natural additives and preservatives are no better for us than synthetic ones because they have been so chemically altered to even be able to be used.

This is purely put on a packet for marketing purposes because people assume natural must be better than artificial.

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Additives and Preservatives Observations



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Your Name: _____ Age: _____ Experiment Date: ____/____

Your Predictions

1. Using the background information provided, circle your prediction of how many food additves or preservatives we look at in this exercise

will be natural... 1 2 3 4 5 6

2. Do you think whether an additive or preservative is important, and is it likely to be better for your health

Your Observations

Use your resources to complete the table on the following page, then answer the questions below. 1. Was your prediction about the number of natural additives or preservatives accurate? Circle Yes No 2. Take a look at the packets you normally eat, are any of these numbers in them? Circle Yes No 3. Do you want to eat foods with these numbers after what you've learnt? Circle Yes No Explain your answer below:

Please use additional paper if you need more space

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Additives and Preservatives Observations



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Complete the table below, then answer the questions on the previous page.

Number	Name	Function	How it's made & what it's derived from	Used in	Possible Side Affects
132	Indigotine	Colour (moderate bright green)	petroleum derived, synthetic	beverages, biscuits, confectionary, sweets	Allergic reactions, anaphylaxis, Asthma, Hyperactivity, Behavi- ural problems.
120					
150c					
621					
635					
951					_ *

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