



Baylab

Packaging Pandemic!

SHELF LIFE

The main purpose of packaging is to protect and preserve the product it contains. The shelf life of a product is how long it can remain on sale in a shop and still be in a useable condition.

We thought it would be fun for you to investigate how good different packaging types are for a product chosen by you. This will need to be a fairly long term experiment and may require weeks or months.

INVESTIGATION 2

How does different packaging affect the shelf life of a sensitive product?

WHAT WILL YOU NEED?

- // At least two types of packaging appropriate for your product (this will be your independent variable). Examples may be foil, paper, plastic
- // Multiple samples of your proposed product. This should be something you would expect to crumble, rot or otherwise degrade if left in the open for the time of the experiment. Examples may be a fruit, Berocca type tablet or other foodstuff.

WHAT FACTORS MAY AFFECT HOW MUCH A PRODUCT DEGRADES OR ROTS OVER TIME?

There are 5 suggested factors in the wordsearch grid.
Can you think of any others?

D	B	V	H	X	H	Z	L
A	A	E	I	G	N	U	F
L	A	M	Q	O	J	R	J
T	J	B	P	U	T	N	R
T	E	A	K	N	O	O	X
N	X	I	Q	I	E	C	F
W	Y	R	H	E	G	S	J
I	N	S	E	C	T	S	S

HOW WILL YOU MEASURE ANY CHANGES?

(DEPENDENT VARIABLE)

In your team you will need to come up with one or more tests or observations to measure any changes that have taken place in the test product.

These may mainly be changes you can observe but you may also find factors you can measure, e.g. number of fungal spots, hardness or stiffness, how difficult it is to break up etc.

Do not eat or taste the product at the end of your experiment and you may want to wear gloves and or masks.

HOW SHOULD WE PRESENT OUR PLAN?

You can use the template on the next page or use a standard form at your school/club etc. Fill in all the sections on the template as completely as possible.

HOW LONG WILL THE INVESTIGATION TAKE?

We would suggest that you allow the product in each packaging material the same amount of time to degrade. This should be **at least three weeks**.

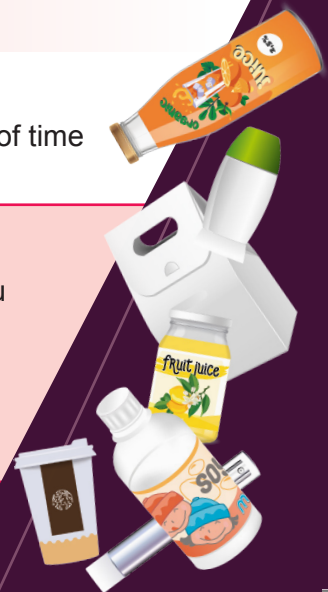
HOW SHOULD WE PRESENT OUR RESULTS?

The standard way of presenting results would be a scientific paper or poster but you should not feel limited by this and ANY form of presentation is great as long as it communicates **what you did** and **what you found out**.

Please do let us see what you have produced on social media using

#Packagingpandemic @BayerUKI

Wordsearch: INSECTS, FUNGI, DAMPNESS, AIR, HEAT





Test Product:

Packaging Materials:

Material 1

Material 2

Length of experiment:

Start Time/Date:

End Time/Date:

Any intermediate test dates:

Observations/Measurements to be taken:

Dependent Variable 1:

Dependent Variable 2:

Replicates:

(how many times will each material be tested in each condition?)

Number of groups repeating the experiment:

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