

# EBIBLE EXPERIMENTS



# Edible Experiments: Top Secret Science Experiment Manual

Science is awesome and eating is awesome so in Edible Experiments we put the two together. Hopefully the maths will stack up and this will be double awesome!

**WARNING:** Your Edible Experiments are yummy and generally pretty safe but be sure to check that you're not allergic to anything before you start munching.

Let's make science awesome!

*Mad Marc*



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## Experiment 1. Dancing Raisins

This experiment is both unbelievably simple and fairly mesmerising and as it's an Edible Experiment you can have yourself a snack too.

### YOU WILL NEED:

- Raisins or sultanas
- Lemonade
- Glass

### HERE'S HOW TO DO IT:

- Pour yourself a glass of lemonade, being careful to pour it at an angle to try and preserve the fizz.
- Add in a handful of dancing raisins.
- Sit back and relax and watch them 'dance' - they genuinely dance far better than I can, not that hard!

### HERE'S HOW TO EXPERIMENT EVEN MORE:

- Do you have to use raisins for this experiment? What else could you try? Could you put some pasta pieces into your drink?
- Could you use different fizzy drinks? Do diet fizzy drinks make a difference?

## Experiment 2. Scientastic Sherbet

Scientastic sherbet is absolutely delicious and an awesome way to get thinking about chemical reactions.

### YOU WILL NEED:

- Bicarbonate of soda
- Citric acid
- Icing sugar
- Cup
- Lollipop stick

### HERE'S HOW TO DO IT:

- Add a pea-sized amount of bicarbonate of soda to your cup.
- Add around half a lollipop stick of citric acid to your cup.
- Add 3 sticks of icing sugar to your cup.
- Mix it all together.
- Have a taste!

### HERE'S HOW TO EXPERIMENT EVEN MORE:

- What else could you try? As we're eating it we need to make sure that we only use food! Could you try lemon juice?
- What are the perfect proportions of each of the ingredients to make the most fizz and to make the best taste?

## Experiment 3. Fizzing Fountain

The fizzing fountain is one of the most awesome experiments of all time but you absolutely, definitively **MUST do this experiment OUTSIDE!**

### YOU WILL NEED:

- Bottle of diet lemonade
- Mints (mentos really do work best)
- Toilet roll, scissors, sellotape & pen (optional)

### HERE'S HOW TO DO IT:

- The first thing to do is to build our special mentos dropper contraption.
- Cut and tape your toilet roll so you have a cylinder exactly the same size as the top of your bottle. Tape your cylinder to your bottle.
- Pop a pencil or a pen through your toilet roll to prevent your reaction starting before you're ready!
- Load up the mentos on top of the pencil.
- Make sure you're outside!!!!
- Pull the pencil out to start your fizzy fountain!

### HERE'S HOW TO EXPERIMENT EVEN MORE:

- How many mentos create the optimal fizzing fountain?
- Does your fountain go higher with regular or diet fizzing drinks?
- How about experimenting with cola vs lemonade or with different brands?

## Experiment 4. Radioactive Rock Candy

Radioactive rock candy looks like it's from another planet but as weird and unusual as it looks I promise you that it's a genuine edible experiment.

### YOU WILL NEED:

- A pack of sugar
- Water
- Pan and an adult to help out with heating our mixture!
- 3 glasses
- Kebab skewers
- Clothes pegs
- Glass
- Food colouring (optional)

### HERE'S HOW TO DO IT:

- Add one part of water to your pan (maybe just use a mug).
- Add three parts of sugar to our pan.
- Get an adult to help heat the solution nice and slowly so that the sugar doesn't burn but does completely dissolve into the water.
- Carefully (get an adult to do this!) pour your sugar solution into 3 glasses and use a drop of food colouring to colour your solutions.
- Use your clothes peg and kebab skewer to make a stand for the rock candy to grow on. (Make sure you leave a gap between the bottom of your glass and your skewer.)
- Wait...and wait...and wait...
- To make the perfect Rock Candy you'll have to wait around a week or two!

### HERE'S HOW TO EXPERIMENT EVEN MORE:

- What's the perfect proportions of water to sugar to make the perfect Rock Candy?
- Could you just add loads of sugar? How about 6 cups?

## Experiment 5. Prehistoric Amber

Prehistoric amber looks (to me at least!) like something from when the dinosaurs walked the Earth. It might not taste incredible but it is edible and it is a truly amazing substance.

### YOU WILL NEED:

- **WARNING : 100% need an Adult to heat and cook this experiment!**
- Pan
- Golden syrup & sugar
- Cream of tartar (optional) & food colouring (optional)
- Bowl of water & ice cubes
- Spray oil & small tray

### HERE'S HOW TO DO IT:

- Add 1 cup of water to your pan.
- Add 2 cups of sugar.
- Add 1/2 a cup of golden syrup.
- Add around 2 grams of cream of tartar (it will work without it!).
- **WARNING:** This is where we need an adult to help out as we'll be heating our mixture up to almost 150 degrees.
- First, heat the mixture together on a low heat while stirring for about 5 minutes so everything mixes together without burning.
- Next, heat on a medium heat for about 10 minutes, this will cause your mixture to thicken.
- To test when your prehistoric amber is ready make an ice bath using a bowl of water and ice cubes.
- Use a spoon a drip a small amount of your mixture into the ice bath. If your mixture turns brittle it's ready!
- **WARNING: DO NOT TOUCH OR EAT YOUR MIXTURE RIGHT AWAY** - it's very hot and needs time to cool.
- Spray your tray with oil and get an adult to help pour the mixture into your tray. Add some food colouring and leave your mixture to cool.
- You now have your very own prehistoric amber!