

Dear Grown Up,

Welcome to the Christmas Special edition of Oxford Brookes' Science Bazaar Saturdays! Below are details of the resources you will need to help your children complete 5 different Christmas themed Science activities to do at home. There's also a link to an instructional video so you can follow along with Nitro-Jen as she guides you through the activities and explains the science behind each one!

The video can be accessed here: https://bit.ly/SciBaz_xmas22_scikit

During the video, we will be making a **Fizzing Snowman**, **Tree Climbing Fairy**, **Paper Snowflake**, **Santa Friction Climber** and a **Snow Globe Thaumatrope**! These activities are not suitable for children under 5 years of age but are designed for children 8yrs+ and will require adult supervision.

Here's a list of some common household items you will need to complete the activities:

- 4 tbsp (60g) sodium bicarbonate
- 2 tsp hair conditioner
- small bowl
- teaspoon
- 2 tsp (10g) citric acid & 100ml water
OR 100ml of vinegar/lemon juice
- jug or cup
- sieve
- scissors
- templates printed on paper
- templates printed on card
- colouring pencils
- glue stick
- sticky tape
- 3m of string/wool
- 2 paper straws
- 2 beads
- Washer or coin as a weight

Bright Sparks Science takes health and safety standards seriously. We have risk assessed the procedures that cover children completing these experiments at home and the known hazards for the listed ingredients is provided below. However, these experiments and safe use of its listed ingredients is your responsibility. Whilst we will endeavour to provide full instructions during the recorded video, children will require adult supervision in person throughout. Please read the provided chemical safety information below before starting.

We very much hope you all enjoy the Christmas themed activities and have a wonderful festive season! With much thanks to Ellie Beaman and Oxford Brookes for organising and funding this project.

Nitro-Jen and the **BRIGHT SPARKS SCIENCE** team

Bringing science to life!



CHRISTMAS SCIENCE KIT

This experimental set is intended for use by children over 8 years, under adult supervision. Because children's abilities vary so much, even within age groups, supervising adults should exercise discretion as to which experiments are suitable and safe for them. The instruction video should enable supervisors to assess any experiment to establish its suitability for a particular child.

Safety rules

- Keep children under the specified age limit and animals away from the experiment area.
- Make sure that all containers are fully closed and properly stored after use.
- Ensure that all empty containers are disposed of properly.
- Wash hands after carrying out experiments.
- Do not eat or drink in the experimental area.
- Do not allow chemicals to come into contact with the eyes or mouth.
- Do not apply any substance or solutions directly to the body.

FIRST AID INFORMATION

- In case of eye contact: Wash out eye with plenty of water, holding eye open if necessary. Seek immediate medical advice.
- If swallowed: Wash out mouth with water, drink some fresh water. Do not induce vomiting. Seek immediate medical advice.
- In case of inhalation: Remove person to fresh air.
- In case of skin contact, burns or irritation: Wash affected area with plenty of water for at least 10 minutes.
- In case of doubt, seek medical advice without delay. Take the chemical, its container and this leaflet with you.
- In case of injury always seek medical advice.

CHEMICAL EXPERIMENT & INGREDIENT INFORMATION

FOR USE UNDER ADULT SUPERVISION ONLY. INSTRUCTIONS CONTAIN SOME CHEMICALS WHICH CAN PRESENT A HAZARD TO HEALTH.

Fizzing Snowman experiment

Sodium Bicarbonate: food grade E500 sodium hydrogen carbonate NaHCO_3 as a fine white powder – net wt. 60g, CAS 144-55-8.

Citric Acid, Vinegar and Lemon juice can be very irritating to the eyes and skin. Wash hands thoroughly after use. If substance enters the eye, wash thoroughly with water and if irritation persists, seek medical attention.

Allergy and intolerance

Avoid handling if you have known allergies to the ingredients listed above. If you have any sensitivity to acids or soaps we advise wearing gloves.

Chemical advice

The chemicals used in these experiments are diluted to safe concentrations and used in small volumes. All unused chemicals can be disposed of safely down the drain with plenty of running water. Please dispose of all items responsibly.