

Nailsworth C of E Primary School

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News for this week

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Summer term.....

A warm welcome back to the school term. Here at school, we have been busy with our learning and we're delighted to see so many work packs from children at school returned and completed. If you haven't picked up the latest work (to cover this week and next week) they are available in the entrance area and online as normal. If you can't get in to school, please let us know. We may be able to deliver the packs to you.

Reception/ Year 1

We have been learning about mini beasts in Reception and Y1. We looked at the lifecycle of a tadpole and we got to hold one. We also held a water snail and a caddis fly which kept poking its head out of its little home. We also looked at ladybirds and made our own ladybird kite to fly. We've been busy keeping the plants alive in the veg garden by watering



them and we've been making daisy chains.



Year 2/3/4

We have had a lovely week. As well as English and Maths learning, we have been learning all about diamonds. We have made octahedrons (3D diamonds) cooked diamond biscuits, discovered how diamonds are cut and mined



and have looked at the top 10 most expensive diamonds in the world!



Year 5/6

This week we've been looking at living things in their habitats. We've each created a shoe box scene from a zoo and we're painting a life size giraffe (4.5 meters) after watching a video from Chester zoo's YouTube page. We've also been working on simplifying and ordering fractions.

Chess

Many children have been accessing "Chesskids" from the school website. Well done to NW2024, NW2019, NW2016, NW2015 as well as Ben, Oliver, Ollie, Violet and Elliot who have been playing regularly.

Rocket competition

Some of you may know that the 1st May is National Space Day. To mark the event, we are holding a competition to design a rocket that can take off. Your rocket should be either:

a straw rocket

or a bottle rocket. This requires adult supervision.

The details of how to make each are overleaf. For those at home, please send photos of your rockets or, if you are feeling adventurous, you could send a clip of them taking off, to the office. There will be a prize for the best-designed rocket in each category as well as 2 runners-up prizes. The winners will be announced on the school website on the 1st May.

A huge well done to Alfie, who asked his mum to shave his head and then donated £10 to the NHS.

Brilliant!



Value Badges

Don't forget that you can still nominate your child for a Value badge. We will put any badges in the entrance area with the appropriate name attached.

Mini beasts challenge for you all to take part



A close up of part of our solitary bee hotel. Empty snail shells are great houses for bugs!

Could you create a bugtastic bug hotel?

Email: admin@nailsworth.gloucs.sch.uk



This is a photo of our solitary bee hotel at school. Solitary bees lay their eggs in hollow pieces of vegetation



An insect hotel can be made from a plant pot filled with garden vegetation

We challenge you to create a special home for insects and mini-beasts in your garden or any outdoor space.

Take a photo and send it in to school for us to put on the website for everyone to see!



Hollow bamboo is a good place for solitary bees to lay their eggs



Here's a simple idea: Just water a piece of ground, cover with an upside-down plate and leave it for a while. Bugs of all kinds will move in!



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Dear Mrs. Geller,

I would like to nominate PALKO
for a service badge because he put
all of the useless stuff on
COMPUTER into folders and on the
out of the way. put them



SINCERELY

yours ~~Sari~~ Sari year 2.

DIY Bottle Rocket

What do I need?

- An empty plastic bottle (500ml or 1 litre water bottles work well)
- White vinegar
- Bicarbonate of soda
- Straws for legs
- A cork that fits tightly into the bottle
- Sticky tape
- A piece of kitchen roll
- A spoon

How do I do it?

1. Turn your bottle upside down and tape four straws onto it. The top should now stand about 2cm above the ground. Make sure that it is stable and doesn't fall over. Don't forget to decorate your rocket!
2. Tear off one piece of kitchen roll.
3. If you're using a 500ml bottle cut the piece of kitchen roll in half and place one dessert spoon of bicarbonate of soda in the middle. Carefully roll the kitchen roll and twist each end so the bicarbonate of soda is wrapped like a sweet. If the paper starts to unroll dampen your finger ends and twist the paper again but be careful, don't make it too wet. If you're using a 1 litre bottle, do the same, except use a full sheet and two spoonfuls of soda.
4. Pour vinegar into the bottle until it is 1/4 full. Screw the top on until you are ready.
5. Take everything outside. Find some level ground and test that your rocket stands up steadily.
6. Your rocket will shoot up quickly so you will need to stand well back, five adult paces (5 metres) should be sufficient.
7. One adult will be the launcher. Turn the bottle so the screw top is upwards, take off the top and put to one side. You will need to do the next bit quickly. Slide the package of bicarbonate of soda you made earlier into the bottle containing the vinegar, holding the bottle as steadily as you can. Quickly push the cork firmly into the bottle. Turn the bottle over and carefully place it on the launch pad. Move back 5 paces as soon as you can and watch the launch.



Skill Level:

Medium

Time

10-20 minutes

Go to bbc.co.uk/terrificscientific for a video guide and other investigations to try at home

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DIY Bottle Rocket (continued)

Safety Advice:

IMPORTANT GENERAL SAFETY NOTE FOR SUPERVISING ADULTS. This Terrific Scientific investigation has been devised so that with adult supervision, reasonable care and by following the instructions provided, no special safety equipment or knowledge is required to enjoy the experience safely. These safety reminders are designed to assist the supervising adult when planning and carrying out the investigation. Please read the instructions fully before starting.

- Everyone should be at least 5 adult paces, about 5 metres, away when the rocket is launched.
- Wash hands thoroughly after handling the vinegar.
- Replace the vinegar bottle top as soon as you've taken the vinegar you need.
- As the rocket takes off some vinegar will spray out. If any goes onto clothes wash off immediately with water.
- Throw a bucket of water over the launchpad when you have finished to wash away any vinegar.

What's Happening? The Science Bit:

Vinegar is acetic acid dissolved in water. Bicarbonate of soda is a base called sodium bicarbonate. Initially the reaction makes carbonic acid but this quickly breaks down into carbon dioxide and water. The cork initially stops the carbon dioxide from escaping, but the pressure builds up until it pops the cork and the water and gas escape. As the contents of the bottle shoot downward, the bottle itself shoots upward demonstrating Newton's Third Law of Motion: "for every action, there is an equal but opposite reaction".

The force of gravity has an effect as it is pulling the rocket down; but the pressure of the gas is pushing against gravity so the rocket goes up. As the gas runs out, gravity takes over again and pulls the rocket back to Earth.

What shape will make the rocket go even higher? Why not try streamlined shapes and reduce the force of friction. Look at a real rocket taking off. Can you improve the design of your bottle shape?

My Rocket Didn't Take Off... What Can I Do?

Do not go to the rocket to investigate. If it does not take off there may be several causes. The first thing to do is wait a while, it may be slowly building up pressure. If it has not taken off after a few minutes throw an old coat or large piece of strong cloth over the rocket. Keeping it at arm's length and with the cloth completely covering the bottle, pull the cork out over a drain and let the contents run away safely.

Possible reasons:

- The cork was not a tight fit, this allowed the gas to escape so there was no pressure build up.
- The cork was pushed in too firmly.
- Your vinegar is old and is no longer acidic. Try fresh vinegar.
- The bicarbonate of soda was wrapped too tightly and the package didn't open up.
- There was either too little vinegar or too little bicarbonate of soda.
- Or a combination of the above.

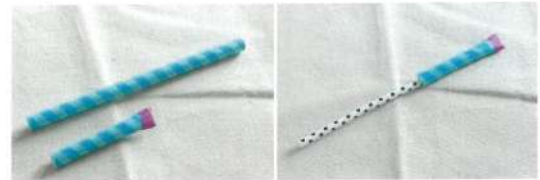
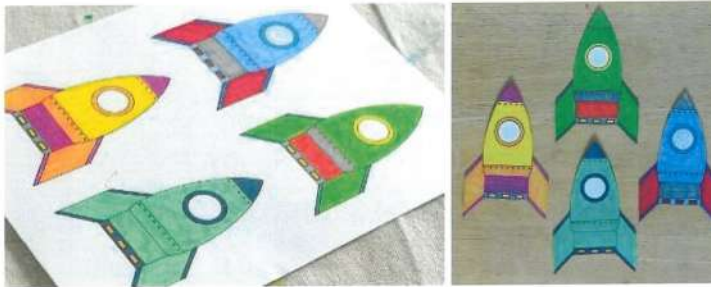
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Materials for Making Straw Rockets

- Straws
- Tape or glue dots
- Straws with a larger diameter than the other set of straws
- Markers, crayons, or coloured pencils
- Scissors
- Free Rocket Template

Directions for Making Straw Rockets

1. Draw a rocket template. Colour the rocket and cut it out.



3. Slip a straw into your other straw, and you're ready to launch!



2. Use a straw. Make sure this straw is wider than the other straw you'll be using for launching. Cut the straw to fit the length of the rocket and tape one end shut so it's completely sealed. Attach it to your rocket with glue dots or tape.

4. Give your straw a big puff of air, and watch it take off!



Extending the Straw Rockets Science Activity

- How does the angle you launch your rocket affect the distance it travels? Try out different angles and record the results.
- Can you design your own rockets to attach to the pipette or straw? Which designs work better?
- Try adding another fin to your rocket with tape. How does it affect the flight of your rocket?