



The British International
School of Brussels

BISB Home School Letter: Science Week

June 4th, 2021

EYFS Nursery

Dear Parents,

What an absolutely stupendous time we have all had in Nursery this week and why is that different from any other week we hear you ask?! It is of course because we added not just a pinch, but a whole heap full of extra science to our curriculum and, just like a test tube bubbling over with an unusual potion, your children have bubbled over with curiosity and taken part in experiments galore!



Yes, it was science week throughout the school, and it started in Nursery with a scientific journey which included; making giant bubbles out of cornflour, washing up liquid and water. The children then used their fabulous mixing skills to make slippery slime out of cornflour, water and food colouring. We got some pretty lurid colours after several batches of food colouring were dashed together and, oh boy, was it slimy! Someone said it felt like the snail we had found in the Nursery garden, which we put lovingly in a box with leaves and twigs, to find it had escaped from its new home and crawled into one of our plastic baskets on the bench. We decided snails are faster than we think they are, especially when three and four year olds are taking care of them!

The children also had a great time taking part in the water jar orchestra experiment, when we filled glass jars to different levels using water. The children then tapped on each jar with a metal spoon to hear the sounds each one made we then added food colouring to the water to find out if this made any difference to the sound, ask your little one if it did or not, see what they have remembered.

To follow through from our caterpillars cocooning and then emerging as beautiful butterflies, which we released excitedly into the Nursery flower patch, we revisited the Very Hungry Caterpillar story and then experimented with the food ourselves by creating some fruit kebabs using some of the fruit the caterpillar had eaten in the story. To make it a little more interesting for the children we asked them to try different kinds of skewers to place the soft and hard fruit on and amazingly discovered that chocolate Mikado bread sticks were super tasty with skewered raspberries and watermelon, but wooden sticks and apple was very boring and not tasty at all!

We then did a floating and sinking experiment with the fruit peel. Ask your child if they can remember which bits of peel floated to the top and which bits glugged to the bottom of the water jug! To finish off we did a very sticky icing sugar painting, which we turned into a beautiful butterfly for everyone to take home.

The treat of the week was a visit from two real scientists from an organisation called "Green Light for Girls" Alex and Ingrid were just brilliant with the children and really got their curiosity fired up with simple, but very effective, experiments using sweets, pepper, milk, food colouring and washing soap to demonstrate

how water tension, dispersion and density work and then of course each child had their own science station and did it for themselves!

Unfortunately, we just ran out of time and didn't get to make our Lava lamps that we collected all of the plastic bottles for, but we will continue with a little science week extension in Nursery next week and do it then. We will also make our roving Robots out of the big boxes and the little bits and bobs you have faithfully collected for us!

Phew, a busy week indeed and on top of all of the awe and wonder of science, the children were exposed to some rich science vocabulary, such as, molecules, cells, neurons, chemistry, physics, test, experiment, data, control, fact, funnel and of course the most used phrase this week; let's find out!



Don't forget to take a look at your child's STEM passport that you will find in their folder and use the questions as prompts for our **talk topic** this week, which is "**Tell mummy and daddy what you learned about science this week**" and keep an eye on Edmodo for more photographs of the different experiments.

Have a great weekend and, if you can't get out and about, why don't you look up some simple experiments for children on YouTube and do them together with your little one, believe us they are full of surprises!

Alison Davies, Anna Nagy & Vanessa diFine nurseryteacher@telenet.be

EYFS Reception

Dear Parents,

What an exciting week we have had! The children's enthusiasm and eagerness to experiment were contagious!

We have dedicated the whole week to learning about different topics in science, discovering amazing things, and testing and demonstrating our knowledge about the subjects in each experiment performed throughout the week.

There has been a nice variety in the themes chosen. We went from light and dark to oceans and water wildlife, from brain anatomy and functions to woodland exploration onsite, from separating substances to testing the power of magnets ... endless fun! STEM week will certainly be remembered by everyone as an exciting and enriching event in school life. One of the most thrilling moments for our class was the trip to Tervuren woods and playground. The children had a blast from the minute they left school and, despite coming back feeling very tired, it was lovely to hear them giggle and talk in the coach on the way back to school about the amazing experience they had just enjoyed. According to my mobile telephone we walked almost 3km. I must say that all the children were very good during the walk in the woods. They paid attention to the surrounding environment, listened attentively to the sounds around them, made keen observations about the wildlife we were able to spot and even made their own discoveries concerning insects and bugs. The excitement levels grew even higher when we arrived at the playground area. We had a lovely



picnic and, after having a rest, they all played nicely in the sandpit, on the climbing frames, the slide and in the wooden houses.

In this week's home school book you will find a beautiful drawing about the forest we visited. I'm sure they must have all shared with you all the things they encountered in the woods and surrounding ponds, but if not, do not hesitate to ask them as you will for sure enjoy all the wonderful stories.

Apart from all the scientific experiments done throughout the week, we also had time to read with the children and move forward in our reading programme and we had a couple of art sessions in which they produced some beautiful pieces of art.

Our talk topic for next week is related to our oceans experiment: What can we do to prevent people from throwing litter in the sea?

We wish you all a happy and warm weekend.



Mrs. Van Wassenhove and Mrs. Julaton receptionteacher@telenet.be

KS1 Year 1

Dear Parents,



This week was full of activity with it being Science week and our school trip! Our trip to Middelheim sculpture park went very well and we had a lovely day. The children enjoyed getting up close to so many unique and interesting sculptures and being outside in such beautiful weather.



We enjoyed discussing the sculptures and attempting to sketch them. We also tried a bit of map reading with finding our way around the park too. There were so many fascinating sculptures, some of our favourites were the polar bear, the bent boat, the houses and the one that was like a maze inside! We were so lucky to be outside on such a glorious day and we enjoyed sitting in the shade of some big trees, playing some circle games and having our lunch.



dome shape is really strong!

Science week has been a whirlwind of activity for us in Year 1. We have done so many varied and fabulous experiments this week. Perhaps the most unusual was the egg-walking challenge. Most children walked across the eggs successfully with a little bit of help on how to position their feet. I had to have a go to find out if (much) heavier people were more likely to break the eggs...well it seems that it was definitely a disadvantage, but we were all surprised by how many eggs remained unbroken even with an adult walking on them, the



We have also been working towards our Crest Star science awards this week by doing a series of 8 experiments. We started by doing a couple of experiments on the theme of materials. One was finding the best material to repair an umbrella. This involved testing a series of materials to find the one that was the most waterproof. Another material - themed experiment was finding the best material for making teabags. Wow, it was a real challenge to find something that let the tea pass through but not the leaves! We also did a couple of experiments on the theme of light and dark. One experiment where we made shadows and another where we had to find the best material to wear to be seen in the dark. We did a fun experiment called 'confusing cans' where we had to guess what was inside the cans by how far they rolled, and it worked - the cat food rolled the furthest in both groups due to its density.

We also did a couple of fabulous science workshops with our visitors from 'Green Light for Girls'. We absolutely loved finding out about chromatography and separating colours to make our beautiful butterflies. The children were really engaged and came up with some fabulous comments. You can see the work we have done in science week on our science Wakelet which can be found on this link - <https://wke.lt/w/s/gKrDpb>.

Talk Topic: If you could do any science experiment what would it be? What would you want to find out?

And that was our week! I hope you have a great weekend,

Kind regards,

Camilla Rutayisire and Smita Bandaru

Year1teacher@telenet.be



KS1 Year 2

Dear Parents,

STEM (Science, Technology, Engineering and Mathematics) week was an explosive success in Year Two this week!

The mission of the week was to complete a minimum of eight different investigations in the areas of Science, Technology, Engineering and Mathematics to collect stickers for their STEM Passports. In order to gain a sticker, the children were set a real-life problem to solve. They had to draw on their own experiences to think of a hypothesis for an experiment. Then they had to carry out the investigation to solve the problem, contemplating how to make it a fair test and recording their results carefully and creating from them appropriate graphs and charts to show the results.



Finally, the children had to draw a conclusion from their findings which helped to find a solution to the problem set. Eight completed investigations earned each pupil a STEM Certificate.

The investigations that took place this week were as follows:

The Egg-citing Egg Walking Assembly Egg-stravaganza! We kick-started our STEM (Science, Technology, Engineering and Maths) Week with an assembly all about the science we see all around us, the young scientists changing the world today and we finished by seeing if we could walk on boxes of eggs without breaking them!





Challenge 1; Sneeze Zone. Our first experiment was investigating the spread of infection when we sneeze. We created a 4m 'sneeze zone' with paper and drew innocent bystanders on it. Next, we 'sneezed' (sprayed a water bottle) and counted how many people we infected. We repeated this action with a gloved hand in front of our 'sneeze', with a tissue in front of our 'sneeze' and then with a mask covering our 'sneeze' and compared the results.

Challenge 2; Noisy Shakers. Our next investigation was into making the noisiest shaker! We tested a range of fillings (popcorn, beads, gravel, lentils and beans) and different containers to see which filling and which container would make the loudest noise!

Challenge 3; Tumbling Toast. The subsequent investigation was to test 'Murphy's Law' - to see if toast always falls butter-side down. The children created their own questions to investigate, such as 'Will the thickness of the butter affect the way the toast falls?', ' Will the size of the buttered bread have an effect on which side falls on the floor' and 'Does the height the toast is dropped from change the way the toast lands?' We of course had to drop a lot of buttered toast to find out answers to our questions!

Challenge 4: Musical bottles – a short exploration of how changing the volume of liquid poured into a glass can change the pitch (how high or low) of the sound made when tapping glass bottles with a spoon.

Challenge 5; Lava lamps. This was a very exciting experiment as we were visited by the Greenlight4Girls scientists! They investigated different densities of liquid, combined different ingredients to make a few explosions and then helped each child to make their own lava lamps to take home!

Challenge 6: Fingerprints - The class turned detectives this day when they tested different substances (talcum powder, cocoa powder, coconut oil and ink pads) to see which would make the best fingerprints. Then they photographed the fingerprints with the zoom camera function to see them up close. The iPads were then swapped and the children were asked to try and identify the fingerprints of their friends from the print photograph taken.

Challenge 7: Do all balls bounce? - An investigation into the bounciness of balls. We tested six different balls on three different surfaces to see which bounced the highest.

Challenge 8: Creating parabolic curves in Mathematics – we used graph paper and numbers plotted onto the x and y axis to explore whether we could make a curved line by drawing only straight lines. The children were very impressed with the curves they created and used parabolic curve patterns to create interesting and arty pictures.



Challenge 9; Bubble buddies! This was a fun activity where we became bubble-wand engineers – we used different wires (copper wire, gardening wire and pipe cleaners) bent into various shapes, large and small, to investigate which size, shape and wire would make the best bubbles. This was such a lovely experiment to do out in the garden on a warm Wednesday afternoon!

Challenge 10: Slippery shoes: An investigation to see how slippery different shoes are and if the surface they are on makes a difference.

We tested everybody's shoe on a ramp covered with different fabrics to see whose shoe was the most



slippery. The children then created block graphs to show their results for both the shoes and the fabric used. We are getting very good at analysing our results and drawing conclusions from the graphs that we produce.

Challenge 11: Life in Colours; Finally, we were visited on Friday by a scientist who investigated chromatography! We found the different primary colours that make up the felt tip pens that we use. We then used real test tubes and coloured water to mix primary colours. We also used hand-held microscopes to look closely at the colour mixes within paintings!

We also concluded our Science topic on growing and changing by watching our caterpillars emerge from their chrysalis as beautiful butterflies and releasing them into our garden. Some of them didn't want to fly away and stayed for some time, resting on the fingers of different children, as if to say thank you and goodbye!



In Topic this week, we took a break from all things STEM and went on our final walk around the local area to observe the flowers now in bloom and to plant the seed balls that we made last week. We gathered up the tiny lavender seed balls in our handsewn bags and scattered them in areas that we felt needed brightening up, spraying them with water from our bottles, just like the girl in our class text had done in her city.

Our Art project this week involved creating some lovely cards for a very special Father's Day coming up soon.

And in Computing, the children made their box backgrounds for the animation project they have been working on over the last few weeks – we are almost ready to begin filming!

What a busy week it has been! Please view Edmodo or the school website to see photographs from all of the challenges this week.

<https://www.bisb.org/classes/year-2/>

Talk Topic: Please talk about STEM week – which challenge was your favourite?

How did you make sure it was a fair test? What did you learn this week?

Gabriel Bird and Ena Tolentino year2teacher@telenet.be

KS2 Year 3

Dear Parents,

What a busy and exciting week this has been - Science Week has meant non-stop action from beginning to end! From Monday to Thursday, the children have conducted 2 separate experiments, investigations or activities per day, each covering one or more of the week's focus areas of Science, Technology and Engineering. For brevity, I will list them below:



- Bridge Building – designing , constructing and testing a model footbridge, using only 5 sheets of A4 paper and a small piece of tape.

- A Hole in My Bucket – experimenting with materials to find the best one to plug a hole in a plastic bucket.
- Warm or Cold? – simulating heat loss by different sizes of cold-blooded animals, by replacing animals with different sized bottles of warm water and measuring their temperature every 5 minutes.
- Racing Rockets – adding features or adjustments to a basic air-powered rocket, with a view to improving its aerodynamics, stability and balance, to make it fly further and straighter.
- Tomato Sauce – imitating food scientists by conducting the same series of tests on four different brands of ketchup, to assess each one's viscosity.
- Band Rollers – constructing, and then adjusting and improving, an elastic-powered cotton reel, to make the ultimate racing machine!
- Camouflage Creatures – experimenting with the idea of 'hiding in plain sight', by disguising a square of white card and placing it to blend in somewhere in the classroom, plus making one sombre-coloured and one brightly coloured butterfly, which we tested for camouflage in the park on Friday.
- Discus Design – designing and constructing a discus using paper or foil plates, using different materials secured inside to add weight, in the hope of making them fly further. These were also tested (in some cases to destruction!) in the park on Friday.

In addition to all that, on Thursday we had a session with 'Green Light 4 Girls', who showed the children how to make a fragrant 'bath bomb' – some of these may not have survived the journey home, as they were already rather shaken before home-time! Then on Friday afternoon we had our Cap Sciences demonstration on 'The Magic of Liquids', which was most impressive! I do hope the children have come home excited and eager to tell you all about their scientific experiences! See <https://wke.lt/w/s/dt6SRp> for all the week's photos.



We did also manage to fit in our normal reading sessions – we started a new graphic novel called 'Mouse Bird Snake Wolf', which I have wanted to read for a long while – we will finish it before the end of the year.

Talk topic for next week is 'Tell us three things you learnt during Science Week.'

Have a great weekend!

Patrick Tranter and Naomi Irakoze year3teacher@telenet.be

Year 4

Dear Parents,

Science week has been a huge success in Year 4! Our science investigations spanned physics, chemistry and biology, giving the children the chance to practise a range of scientific skills, and enabling them to see how science is needed in many areas of our lives.

Our first experiment related to the Living Things topic. Having prepared small, temporary homes for worms, we introduced the worms to them, making sure that the worms were deep under the soil. The children then experimented with different ways of creating vibrations, to try to charm the worms out of the soil. We found that worms began to appear at the surface of the soil several minutes after the vibrations stopped.



In our Sticky Problem Challenge, the children undertook a detailed investigation into three different properties of three different glues. The first challenge was to follow recipes to make all three glues, and the children did this well. The second was to work out how to conduct the tests, and then how to record our findings. We found which of the glues was strongest, which was the most waterproof, and which was easiest to clean off clothes.

The Hoodie Hearing Challenge involved the children in testing the effect of different ear coverings on our hearing. Pairs of children set up and conducted their tests independently, and worked confidently, drawing some interesting conclusions from their results.

A very dramatic moment was the use of forensic science to find the culprit in a case of a kidnapped dog. Using chromatography, ie. separating the component colours of black ink, the children could identify which (and whose) pen wrote the ransom note.

The children loved the workshops run by our visitors, from the organisations Cap Sciences and Green Light for Girls. In the first workshop, they learned more about water in all its states. In the second, they had enormous fun learning about polymers, and made polymer balls and strings using sodium alginate. I am sure you saw these colourful polymer creations in the samples brought home. The Green Light for Girls' enthusiasm for science was appropriately described as "joyous" by Abhihi, and was a great inspiration for the children. (Mrs. Read) <https://wakelet.com/i/invite?code=538bddb> Here are some of our Wakelet photos. More to follow!



We continued the experiments throughout the Literacy and Topic sessions, starting off with a very topical lunchtime problem – how to get stains out of t-shirt material using a whole range of products.



Working in small groups, the children had to collect their equipment, prepare their stain mixtures by squashing blackberries, beetroot and blueberries, and then set about creating test samples. Once the material was well stained and beautifully coloured with red and purple blobs of fruit, we tried out the possible stain removers. Lemon juice worked reasonably well, toothpaste was fun and turned pink (but didn't necessarily remove the stain), hand soap made the stains gluey, but inevitably, the great success was an expensive commercial stain-removing product. We then discovered that the resulting pale-yellow stains could be removed by leaving the samples in direct sunlight. Several children managed to stain themselves and their polo shirts pink as well – we will be looking next week to see who has the best washing product and the whitest shirt!



Next, we looked at fingerprints and identified the main patterns. We then investigated different ways of creating sets of prints by using ink, cocoa, talcum powder and oil. We also tried comparing fingerprints on sticky tape and decided that this gave the best prints of all. Interesting questions were asked about whether fingerprints were the same on each hand, if twins were likely to have similar prints, or if toeprints resembled fingerprints ... ongoing investigations!

And then came the 'Raft Challenge' – just twenty minutes to design and build a prototype raft using a single sheet of A4 paper and ten paper clips- a raft that had to float and hold as many unifix cubes as possible. The successful groups jumped to the task at once, putting their engineering skills acquired during the buildings topic to good use. We soon had several prototypes that would clearly stand a good chance and set off to the Science studio to try them out in water. Much to our amazement, it was the very simple designs, carefully folded to create extra layers of paper, that held up in the water and could be loaded with LOTS of cubes! The counting was highly inventive, to say the least, but Jay and Kuval, closely followed by Diya and Navnoor, would definitely stand a chance of escaping from a desert island on their rafts. Mohith and



Nevaan thought very hard about the problem and came up with an ingenious design – it just needs a little more working out. It was fascinating to watch how different groups responded to a timed challenge – some had only just stopped arguing and set to work by the end of the 20 minutes, others had already tried out several designs, and the winning pairs clearly worked brilliantly together, pooling their ideas, working seriously, concentrating hard and allocating specific tasks to each group member.



The Science journals are looking great and will be added to over the rest of the term with more Scientific news and ideas. Our excursion to the park today was great fun – we spotted all sorts of wildlife, made some amazingly creative and beautiful Journey sticks, hugged trees, played games and altogether enjoyed being outside all together in the sunshine (fortunately avoiding the torrential rain that followed!) (Mrs. S)



Talk Topic: What has inspired you this week and what do you want to find out more about?

Have a lovely weekend,

Beverley Tranter year6teacher@telenet.be Kate Read
EALteacher@telenet.be Jane Still headteacher@bisb.org

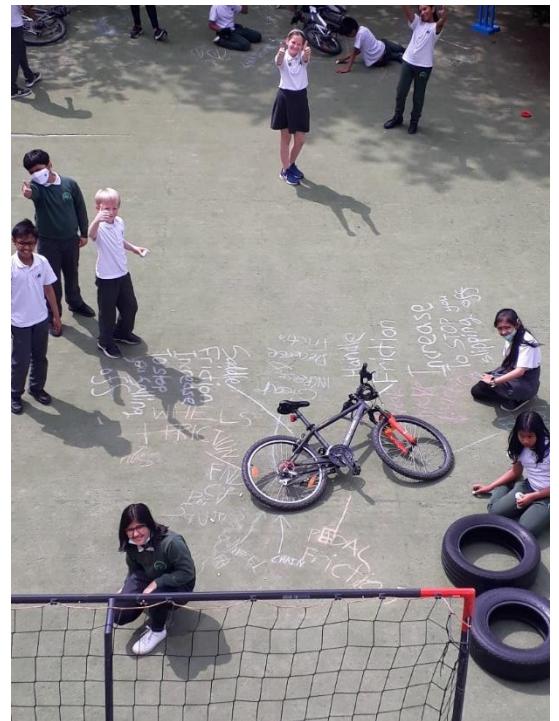


Year 5

Dear Parents,

The children had an amazing experience this week and they really buzzed the entire week. And there was so much to offer. Even if you weren't the scientist, there was something for you.

We started with a crime scene in the basement. The lady from Cap Sciences presented the evidence in connection with a murder in a shopping centre. Each suspect had traces of a powder on their person. Would their sample be the same pH and have the same starch-based nature as the sample taken by the body? Y5 were 'on' this and soon got their girl once they had separated alkalis and acids from neutral substances. There was



lots of mixing, stirring and pipette-ing. It was a hugely popular activity which looked to be the highlight of the week, but it actually got topped!

On Thursday, two ladies in white coats from the Green Light 4 Girls charity came to spread the science word amongst our Y5 ladies (with the boys equally invited!). Mixing Calcium Chloride and Sodium Alginate in water the class made every 10-year-old's dream: slime. Linked-chained polymers to be specific but to us they looked more like octopuses, squirrels, foxes, jelly fish and long snot!

Back in class we set about a science, technology, engineering and maths challenge which totally absorbed us for the whole week. I shan't explain too much as we do hope you'll look at what we got up to on our Wakelet page, <https://wke.lt/w/s/EOJHue> and the children tell you themselves in their own words. On Friday, they got to tell the whole school in a sharing assembly.



What I will add is that we also did mini practicals, dragged my lovely wardrobe of shoes across the room with a Newton meter, labelled a bike in the playground and discovered which is the best shape for a water-bourne vessel all in the name of forces and friction.

Last Monday and this coming Monday, many of the Y5s are in action in the after-school cricket matches. Please collect your children from the usual door at 17:00-17:30 (depending on the result). Let's hope for good weather and good competition.

This week, we were little Einsteins.

Best wishes,
Tim Stedman year5teacher@telenet.be

Our Talk Topic for this week is: What was the best thing about Science Week? Why? What do you think you learnt about science and yourself?

Year 6

Dear Parents,

What a thrilling week this has been with CapScience, Greenlight for Girls, our Crest Award and BBC Microbit projects. We have also been working hard to finish our entries for the yearbook, as well as singing along to Skimbleshanks the Railway Cat and enjoying picnics in the playground. Summer is finally here.

Our previous work about forensic science helped us with our first workshop from CapScience – a police investigation. During this activity we studied the life cycle of the blowfly, to determine an approximate time period of the murder. Blood and fingerprints from the victim were then analysed and DNA established the name of the culprit.

In our second workshop, delivered by those fantastic ladies from Greenlight for Girls, the children had to make a 'ScribbleBot' using a paper cup, motor, felt-tip pens, battery pack and a selection of multi-coloured decorations. What fun we had – please take a look at the videos on our Wakelet

In the Year 6 lab, we carried out the Crest Award 'Stop the Spread'. This involved students imagining that they were charity workers working with a group of primary children in a school in Kenya, to improve their general hygiene. Their task was in two parts:

1. Design, build test a working model that will collect rainwater that can then be used by pupils to wash their hands when in school.
2. Produce educational materials on why hand washing is important in preventing the spread of infectious disease in a format the children will find engaging and learn from.



On Thursday, we opened the Microbit boxes! This piece of wizardry enables pupils to make connections between abstract ideas and real-world outcomes by working with software and hardware together: designing, building, prototyping, iterating (the experience of improving a design, as well as making mistakes and learning from them).

As expected, after we had established how these gadgets work and learnt how to download and transfer a programme, the Year 6 computer programmers were in their element creating flashing hearts, dice, thermometers, counters, 'rock, paper, scissors games' – red lights were flashing all over the classroom.

TT: Would you be prepared to go to Kenya and deliver your project to a school?

Happy weekend,

Beverley Tranter year6teacher@telenet.be

