



BCA Parent Newsletter

N° 16 / February 11th 2022





Principal's Letter

In this newsletter I provide an insight into mathematics education at BCA. This is followed by a series of important announcements and reminders, and of course the usual photo galleries of learning in action.

Mastering Maths

All students at BCA will study mathematics throughout their time in the school, potentially a span of 15 years. An early goal, to be reached before or shortly into Year 1, for example, will be to 'have a deep understanding of number to 10, including the composition of each number' (EYFS Framework), whereas by the end of the IB Diploma Programme in Year 13, all our students will need to be familiar with the binomial theorem: expansion of $(a + b)^n$, $n \in \mathbb{N}$. (IBO Mathematics guide). In this context, a planned progression, a carefully aligned curriculum, and above all an effective pedagogy are essential.

In England, a new knowledge-based mathematics [National Curriculum](#) was implemented in 2014. This curriculum has remained in place since then, and is the one that we follow at BCA, alongside a more recent framework specifically for the Early Years. Its three main aims are the development of:

1. Fluency
2. Reasoning
3. Problem-solving

The curriculum, and the implicit pedagogy of 'mastery' behind it, was inspired by mathematics teaching in high-performing South-East Asian countries, and was developed with the British [National Centre for Excellence in the Teaching of Mathematics](#). The Teaching for Mastery approach is underpinned by the rejection of the idea that a large proportion of people "just can't do maths". Instead, the belief, supported by research, is that with the appropriate resources, support, teaching and time, all children can succeed mathematically. There is a uniform expectation of high standards. There is also alignment with Dweck's (2008) concept of 'growth mindset', in that all students are encouraged by the belief that by working hard at maths they can succeed.

Clearly, just as there are contextual differences between education in Britain and South-East Asia, so there are contextual factors to consider when delivering an English curriculum in Andorra. Nonetheless, the mastery approach is the one that we have now adopted in Primary and Secondary at BCA.

In a mastery approach, the large majority of students progress through the curriculum at the same pace. There is an increase in direct instruction, although opportunities for group

work, enquiry and authentic problem-solving are still provided. Evidence from cognitive science suggests that learning key facts to a level where they become automatic, “frees up” working memory to focus on more complex problem solving rather than reaching cognitive overload trying to calculate simple operations (see Ms. Newlin’s article below about the secondary ‘leaderboard’ which is designed with this in mind). Differentiation is achieved by emphasizing deep knowledge and through individual support and intervention. Before moving on, the teacher ensures that the foundations for the next step are complete, avoiding gaps in understanding that will hinder progress later. The expertise of the teacher is paramount in managing this process, for example in anticipating common misconceptions, and providing personalized support to higher achieving children.

The texts and photos below, give an indication of what maths education, using this approach, looks like at BCA each day.

The above text with acknowledgements to:

Conversations with BCA teachers, and Blausten et al (2020), Supporting Mathematics Teaching for Mastery in England, Chapter 2 in Reimers (Ed.) Empowering Teachers to Build a Better World: How Six Nations Support Teachers for 21st Century Education, Springer Briefs in Education.

A handwritten signature in black ink that reads 'H Lock'.

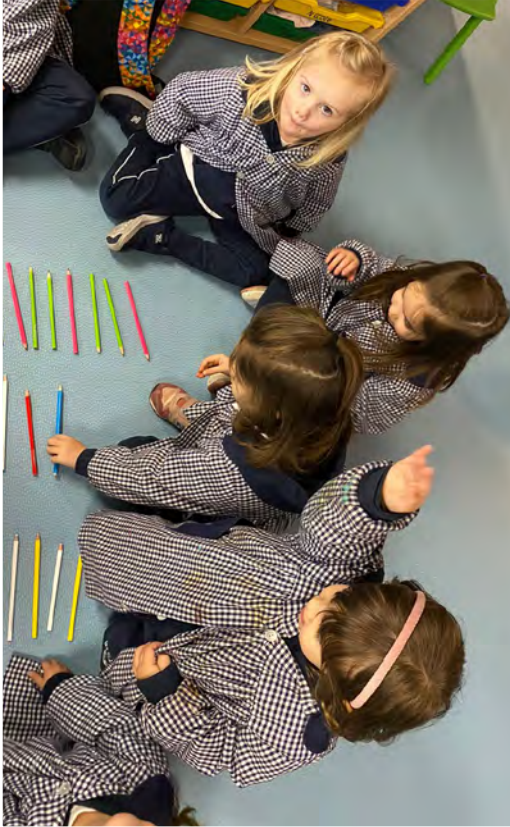
Mr Harry Lock
Principal



In the Early Years...

Knowledge acquisition is grounded in play. Children use resources and materials to manipulate, so that the maths learning will be more motivating.

Here, the learning activity in Cygnets involves making patterns with different items.



EARLY YEARS

In Penguins...

Children take the next step and learn about geometric shapes using spaghetti, rice and chickpeas.



In this lesson the Owls are making two-digit numbers using [manipulatives](#), which uses visualisation to develop understanding. They began by counting using hundred squares, and then looking at patterns in numbers.

They focused on counting in 10s. They then used this knowledge to make 2 digit numbers with cubes, counters and Numicon. They looked at the first digit to know how many groups of 10 to make, and the second digit for the units. They then counted in groups of 10 to check our numbers. They discovered that counting in tens was a much quicker way to count bigger numbers. This learning is the principal focus of Key Stage 1 mathematics, which is “confidence and mental fluency with whole numbers, counting and place value”.



Robins drop paper helicopters from the playground. What happens as they fall? Why do they fall? How long do they take to fall?

How can we time this? What units do we use? Which is the fastest? Which is the slowest? What is the average time? What is the distance they fall?

Why do some fall faster than others? Are there real life examples of this experiment you can think of? How could you improve the experiment?

They are learning to work scientifically, to think about forces and motion, and the links with maths are clear.



Here the students are building their confidence in multiplying two-digit and three-digit numbers by a one-digit number using formal written layout.

The teacher is using the British [White Rose Maths](#) resources, which support a mastery approach. After the teacher models the method, which builds on their knowledge of place value, students are challenged and supported through further examples.

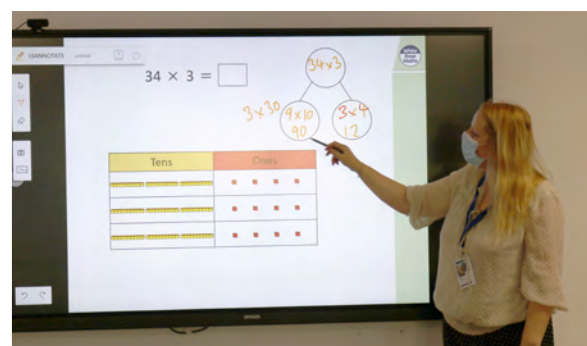
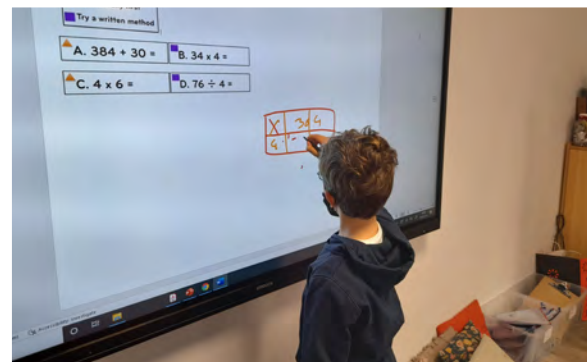
There are daily fluency quizzes where previously taught concepts are consolidated. Children become the teachers, sharing their solutions with the rest of the class. The class uses resources and pictorial representations to aid understanding.

After this they can take an abstract approach so that they can answer questions using concepts and symbols. When all are secure, they will move on, within the multiplication and division unit, to integer scaling problems and harder correspondence problems.

"I like Maths and when we use the numbers lines, I like it even more" I.

"I like Maths, it's my favourite lesson. I like to work out the challenges because I always want to learn more" T.

"I like Maths although sometimes it is a little bit hard so I need to use different methods to help me." V.



Over the last two weeks all students in Secondary have been introduced to Dr Frost Maths, a website used by thousands of schools across the world to support students' learning in mathematics.

Homework based on the Dr Frost website can be set, but students also use it for extra practice on anything they find tricky in class, or to extend themselves into topics they have never studied before. IGCSE students have access to a resource bank of revision questions and video tutorials. One aspect some students have become very competitive about is the leaderboard, as students are awarded points every time they practice a key skill, complete a homework or practise numeracy, and students can view who is on top!

The photos below show the integration of teacher direct instruction with use of technology and this website, to accelerate the learning.



OTHER EVENTS

Chinese New Year

Early Years welcomed the Chinese New Year with a giant tiger, and dressed up. Last week, they finished with a marvellous parade. 🥳 🎉



CHINESE NEW YEAR



Reminders

1. Parent Evenings

All conferences will be online, and between 17:00 and 20:00. Details and booking instructions for Secondary have been sent to parents, and for Primary will be sent next week.

Early Years and Primary:

21st February and 23rd February

Secondary:

14th February, 15th February (with translation service) and 22nd February.

2. Half Day for Staff Professional Development, 25.02.2022

As previously announced, on Friday 25th February (the last day before the half term vacation), school will finish at 13:00 (all year groups), before lunch. The school bus service will depart shortly after 13:00, and there will be no catering service on that day, except for students where supervision has been requested in advance (see below).

Staff will then be involved in an intensive afternoon of professional development ('staff training'), at this important point, half way through the school year. Our two themes are Effective Feedback and ensuring knowledge, understanding and smooth implementation of the IB Diploma Programme.

I hope that parents will be able to make the necessary arrangements for an earlier pick-up (the school buses will be rescheduled too).

Where an early collection of a student is not possible for a parent, supervision and activities will be provided until 16:40. Please register your request for lunch then supervision to be provided on the afternoon before half term, by sending an email to admin@bcandorra.com headed "Request for supervision", by 16.02.2022.

Carnival Week

Carnival is coming soon, and this year we will receive the visit of the Carnival King! Early Years and Primary will celebrate from the 21st to the 25th of February, the whole week.

A brief history of Carnival

Carnival is the celebration of the world upside down. A king is chosen who allows people to do things that are forbidden or frowned upon during the rest of the year, just for a few days.

Everyone dresses up, plays, dances, sings and jokes. Carnival is a great time, where you can stop being yourself and become the hero you have always wanted...

The King of Carnival is the centre. Every year they appear on Saturday, as an animal or another person, and they read the proclamation that begins the celebration.

In the proclamation, the King gives permission for unlimited fun: it's time to dance and parade in costume. But the chaos and madness only lasts until Tuesday. On that day, people realise that such a disorder is not good for them.

Finally, in a public trial, the King is found guilty of everything, and sentenced to death. After reading the King's will, they are burned in public. From midnight on Tuesday the feast ends and Lent begins.

You will shortly receive a letter from King Carnival with the instructions to be followed during the week, and other information.

No student is obliged to follow the instructions if they are not comfortable with them.

If you have any questions, please contact us at these emails:

miriam.fluxa@bcandorra.com

paula.binsted@bcandorra.com

World Book Week in March

World Book Day is an event which thousands of schools in the UK and beyond take part in each year; its intention is to "change lives through a love of books and shared reading". The actual day of 3 March 2022 falls during half-term, so at BCA we will be organising a week of celebrating and promoting reading from 7-11 March.

As part of the planned events that week (more details to follow), we are asking all families to donate one book to BCA. The book can be new or in good condition second-hand (perhaps a book your child used when they were younger, but please don't part with anything of sentimental value in the future). Fiction or nonfiction. Suitable for any age from 2-18. We expect that most books will be in English (and we can accept American English as well as British English), but we are also looking to build up our collection of mother-tongue books, so Catalan, Spanish or any other languages will be welcome! This forms part of a wider project to rapidly build our school library this year, both in EY/ Primary and in Secondary,

As part of the celebration on Friday 11 March we will have a non-uniform day where the theme is favourite books, characters from books, or an outfit based on a word and it's meaning. The donation to take part in the non-uniform day is to bring a book to contribute to the growing school library.

ANNOUNCEMENTS

Seesaw: new Learning and Communication platform for Primary classes

On Monday March 7th we will be introducing Seesaw, a classroom app, as our new Learning and Communication platform for Primary classes. Seesaw is used in schools worldwide. You may find out more about it here:



[What is Seesaw? Introduction for Families \(English\)](#)



[Qué es Seesaw? Introducción para las Familias \(Español\)](#)



[Qu'est-ce que Seesaw? Introduction pour les Familles \(Français\)](#)

The roll out will be for Years 1-6 immediately, with Penguins and then Cygnets joining at a later point in the year, as they transition from existing systems.

Seesaw has various functions, and we will add them step by step as needed, after the basic roll out in March is evaluated.

Finally, Seesaw complies with the GDPR and allows residents of the EU, UK, and Switzerland to exercise their rights described in that regulation. Their [Privacy Policy](#) describes this aspect further.

We kindly ask parents to read this letter and complete and return the permission form to join Seesaw:

English version, please [click here](#).

Once you have signed the permission form and returned it admin@bcandorra.com, your child will be sent, via their school email address, an invitation to join Seesaw. We can also provide a paper copy version of this invitation.

Request-No last-minute transport plan changes on ski days, please!

Finally, except in a genuine emergency, we cannot accept day by day changes in the transportation plans for children, for example on one day to be taken to or from the ski centre by car rather than on the bus, or to ride the bus as a one-off rather than going by car. These requests are confusing for all, with messages having to be passed on from the school to our staff on the ground up at the ski centre, sometimes in the middle of the day. Thank you for your understanding.