



Headteachers Message

Dear Students, Parents and Friends,

When ULMaS first opened its doors in September 2020 we welcomed 30 shy but intrepid students into our school and started the process of turning them into mathematical scientists. After nearly 8 months filled with many different types of intellectual challenges as well as the many twists and turns of COVID-19 we are now working with students who think like mathematicians and ask questions like scientists: it's a hugely exciting transition to notice. We are now in the privileged position as teachers of being able to set students difficult challenges and then listen to them work with each other with maturity and thoughtfulness, persevering even when the problems take time and effort to make progress with.

However, whilst the effort in school is remarkably consistent across the student body, there is still some variation in how effectively students are working outside school. Many students are highly effective, with a clear structure to their revision and adoption of effective learning strategies such as spaced retrieval practice, intelligent focus on the right material at the right level of challenge, while others find it hard to tear themselves away from distractions and get settled at their desks for a couple of hours each evening. The next few weeks are a key time for students to establish effective study habits that will sustain them through Year 13 and enable them to access the very high A-Level grades of which they are capable. As teachers we know it's hard for students to leave school at 4.30pm, commute home and then get going again on study in the evening. Nonetheless, we regard this evening study as a crucial part of the high level learning that our students are now embarked upon. This high demand means that it's not easy for students to also sustain part-time jobs as well as having time for exercise, socialising and helping around the house. We appreciate the value of having a part-time job but in general we would encourage students to restrict this to a few hours at weekends, or holiday jobs. The forthcoming summer holiday will be a long one for our students: more details on that below.

We believe that students are very happy with the education and the care they are receiving but if you ever have cause to be concerned about your child's welfare, or feedback that could help us, please call us on 0151 6400397 or [email me](#) or [David Hemsley](#).

Damian Haigh

Inside this issue:

Summer Examinations	2
Summer Holidays	2
ULMaS Physics Network	2
Astro Pi Competition	3
Cooking Challenge	3
Work Experience	3
Academic Expert Talks	4
Outreach Update	4
Social Media	4

Holiday Dates

- May Day - May 3rd
- Half Term Break May 31st - June 4th

Summer Examinations

Students have been given guidance from their subject teachers in school about how they can work effectively in preparation for their mock examinations which commence in the week beginning Monday 14th June, concluding on Monday 21st June.

As part of our personal development lessons students completed an audit as to how well they are working linked to Vision, Effort, Systems, Practice and Attitude. Form tutors have been discussing these in the one to one sessions, please do ask your son/daughter about their areas of strength, and areas to develop. They all have a simple checklist of good learning attitudes to follow.

In Maths, students have identified topic areas in which they lack confidence and can use resources such as Integral Maths to address these weaknesses. Practice papers have also been provided to students and working through these in 30 minute “chunks” allows students to familiarise themselves with the structure of their exams and possibly identify topics which they still need to improve on.

In Computer Science, students have identified topic areas on a confidence level and lessons this half term will be re-visiting those topics which collectively are lower than others. For revision students should use their own confidence scale to review their weaker topics and then use the VLE, online tools, textbook questions or asking for past paper questions on a topic.

For Physics, we have now completed the whole AS curriculum and we’re revisiting Electricity, as during lockdown, although they did well, they didn’t have the opportunity to do practicals and see the electrical components working. To prepare for the mock, we’ve all colour coded a checklist so the revision sessions we do in school are aimed at the harder areas and students should all have a “planning” section in OneNote where they would have devised an individualised revision plan to the mocks. I want this plan to be “active”, including a series of activities such as focussing on definitions and memory tasks /flash cards, reading the marking scheme to guess the questions, practise different types of questions (multiple choice, explanations, calculations, experiment based questions), timing 1 mark/1 minute, and building up to revision times of the same duration of the exam, so they learn when they lose concentration and what to do about it. A proper exam practice to identify areas of improvement would be highly advisable (1 paper, 90 min, done in one go). It’s all about knowing yourself!

Summer Holidays

The end of term (and Year 12) for our students will be on Friday 2nd July, although some will be volunteering to assist in the Summer School Outreach programme during the following week. The 2021/2022 academic year will commence on Wednesday 1st September, but Year 13 will not be required to attend until Monday 6th September. This means that students will have 9 weeks away from school. They may therefore wish to look into the possibility of work-experience opportunities if they have not already done so.

ULMaS Physics Network

Now that COVID allows visits again, we’ve started to establish contacts with different local schools to help support Physics students and their teachers. Join us for advice, shared resources and even Physics trips!



Astro Pi Competition

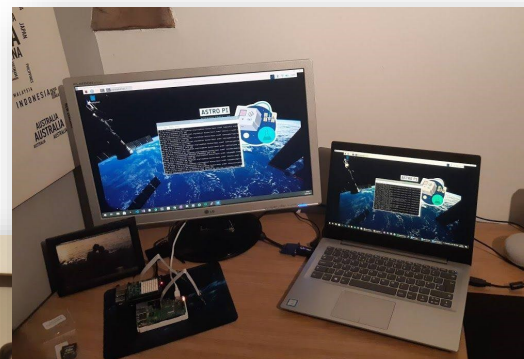
We have 4 of the 25 projects approved in the UK!

<https://www.esa.int/Education/AstroPi...>

We hope many schools from across the Liverpool City Region enter next year:

<https://astro-pi.org/>

Check out the vlog on this [here](#)

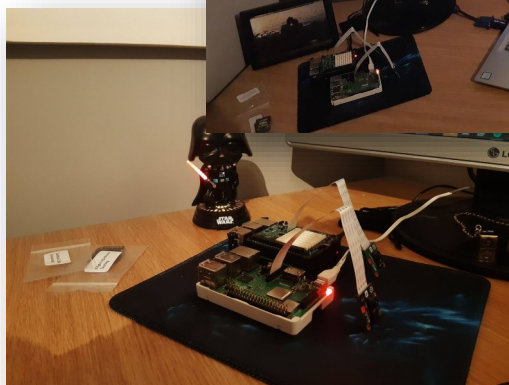


Cooking Challenge

We are asking students (and staff) to cook a meal for the family. Ideally they plan, prepare, cook, serve (and maybe wash up but perhaps that should be someone else's job!). We would like them to ideally buy the ingredients, with some ingredients leftover for future use, or taken from the house stores!

Please can you support/encourage/force them to cook a meal **by 10th May for the family**. They need to take a picture of the food and then make a single presentation slide with the picture(s), the recipe and the cost per person. They will have the link for the shared powerpoint to add their info. They can then share this with the rest of the class.

We will ask family members to complete a survey and this will also form part of the follow up lesson which will be in the PPEP lessons on 12th and 13th May. The survey can be done on this link: <https://forms.gle/vUA5rZhyqq34NfUw9>



Work Experience

This year has not gone as planned! We would recommend students investigate if they can complete a work experience placement in their first week of the summer holidays (Monday 5th July). Companies may not be able to help but some might be offering placements. We can help students consider how to approach companies for this as they self place.

Online opportunities are available and Hannah in Year 12 passed on this information from BAe systems for example:

www.baesystems.com/en/our-company/education/engineering-taster-week/warton

www.baesystems.com/en/our-company/education/engineering-taster-week

Other companies may have links on their pages for online placements, or who to contact regarding in person placements.

Some students have applied for Nuffield Placements which is great and will spend around 4 weeks working with a company or university on a project if successful.



UNIVERSITY OF
LIVERPOOL
MATHS SCHOOL
EDUCATION FOR 16-19 YEAR OLDS

Sir Alastair Pilkington Building
Back Bedford Street,
Liverpool
L69 7SH

Phone 0151 640 0397

Email reception@liverpoolmathsschool.org

 /livmathsschool/

 /LiverpoolMathsSchool/

 /LivMathsSchool

Our Mission

We exist to enable children with a strong interest and high potential in the mathematical sciences to achieve global impact through careers in the mathematical sciences. By preparing them thoroughly and comprehensively for STEM degrees and significant roles both within local communities and the global community of science, technology, engineering and mathematics, our students will be equipped to become tomorrow's industrial and academic researchers, innovators who will address the world's greatest challenges, teachers who will inspire the next generation, wealth creators, entrepreneurs and problem solvers.

Academic Experts delivering talks for the school

April saw the launch of a planned set of talks covering a range of topics to show students more about the subjects, research and industry. This month we have had the following talks which have received positive reviews from students.

- Dr Stephen Lynch- Manchester Metropolitan University- Brain Inspired Computing
- Professor Carsten Welsch- University of Liverpool- Hollywood Physics
- Dr Edward Hardy- University of Liverpool- Dark Matter and Q&A

Outreach Update

Our online outreach courses continued to run throughout the recent lockdown, and we are very pleased that attendance remained strong despite many of our participants taking part in addition to demanding programmes of home learning put in place by their schools. What's more, two new mathematics courses aimed at Year 10 and 11 students have both enjoyed particularly strong starts, with upwards of 100 new students across the region joining in this age group to further their study beyond GCSE and enhance their algebra

skills in readiness for beginning A Levels in the autumn. Full details on all courses can be found on our website [here](#). Any student across the North West is welcome to join in, so please do feel free to pass this information on to anybody you think might be interested.

Social Media

We have been posting a lot of information on Instagram, Facebook and Twitter to help get the message out that we are here to help students across the region in our Outreach, and some of these may join us in September. Please do share and pass on information to those who may be interested so we can be sure to help as many students we can in the North West. We have even started a Tik Tok page, but we are rather lost in that one so will have to see how promoting Maths goes on that.

We are also posting weekly vlogs so you can get a feel for the lessons we deliver here. These are in a playlist on youtube you can access on this link:

https://www.youtube.com/playlist?list=PLuCaH0-PTwC7_2EeBBYGK3qvHh_UcXCdM



Free Online Lessons

GCSE
Advanced Maths:
Problem Solving
Damian Haigh
Headteacher

For more information visit this link

liverpoolmathsschool.org/outreach-reaching-your-potential



WEEKLY VLOG

Steve Wentworth
Head of Computer Science

ESA's Astro Pi Competition
16th April 2021

liverpoolmathsschool.org

