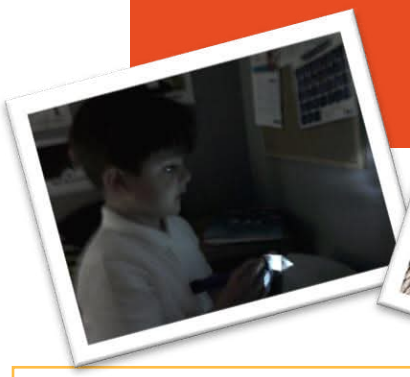
07/06/2024

Headteacher's weekly newsletter


Science at Haywards Farm School

At Haywards Farm Primary School, we encourage students to be inquisitive throughout their time at the school and beyond. The Science curriculum fosters a healthy curiosity in students about our universe and promotes respect for the living and non-living. We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Throughout the programmes of study, the students will acquire and develop the key knowledge that has been identified within each unit, as well as the application of scientific skills. We ensure that the 'Working Scientifically' skills are built-on and developed throughout student's time at the school so that they can apply their knowledge of science when using equipment, conducting experiments, building arguments and explaining concepts confidently and continue to ask questions and be curious about their surroundings.

It is our intent to give all students a strong understanding of the world around them understanding of the uses and implications of science - today and for the future. Science is a systematic investigation of the physical, chemical and biological aspects of the world, which relies on first-hand experiences and on other sources of information. The scientific process and students' problem-solving activities will be used to deepen their understanding of the concepts involved.

Be Safe, Belong, Be Inspired

Science Curriculum Steps of Progression & Knowledge

KS2

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- using test results to make predictions to set up further comparative and fair tests
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments

KS3

- **Biology:** Develop an understanding of how living organisms are built and function to enable successful survival in the world. Link learning to Sport and Technology to appreciate the need for healthy living and exercise. Appreciate how features are passed from one generation to the next to shape life on earth.
- **Chemistry:** Develop an awareness of the periodic table, the elements within and how they react simply. Model simply how particles behave in relation to their properties, including how to use simple practical techniques such as filtering and chromatography. Familiarisation of real-world acids and alkalis and their applications. Link learning from geography to become aware of the earth's resources and how the climate can change.
- **Physics:** Develop an understanding of how the physical world works to explain real world observations such as forces, electricity and magnetism. Link learning with Geography and real-world current events to appreciate the use of resources across the world. Also link learning to technology projects to build electrical circuits and key theories.

KS4

- **Biology:** Build an in depth understanding in key biological concepts such as cellular structure and metabolism, organisation and key chemical reactions such as respiration and photosynthesis, infection and response, control of internal conditions using nerves and hormones, inheritance and the basics of DNA and genes and how this links to the theory of evolution. Apply this knowledge to examination questions and real-world phenomena.
- **Chemistry:** Build an in depth understanding in key chemical theories linked to atomic structure, bonding, quantitative and qualitative chemistry, chemical and energy changes, rates of reaction, organic chemistry and development of the Earth's atmosphere and use of resources. Apply this knowledge to examination questions and real-world phenomena.
- **Physics:** Build an in depth understanding of key theoretical concepts such as energy, electricity, particle model, atomic structure, forces, waves, magnetism and in separate physics space. Apply this knowledge to examination questions and real-world phenomena.

Alex is our Science lead

Dates for the diary:

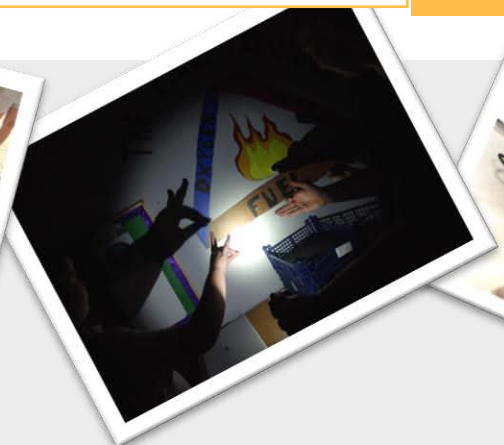
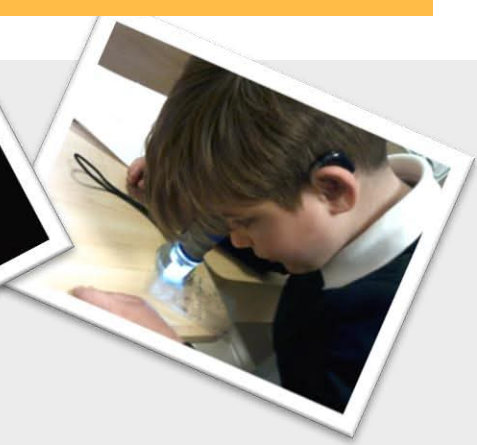
Monday:
- Cherry Class & Red Oak Class - Stables
- Willow Class- Paddocks
- Maple Class- Stables

Tuesday:
- Sailing

Thursday:
- Willow Class- Stables
- Maple Class- Paddocks
- Cherry & Red Oak Class Paddocks

Friday:
- KS1 Cooking
- Willow & Maples Class enrichment



FURTHER UPDATES:

Computing lessons at Haywards Farm Primary School - Rising Stars: Switched On Computing

The school uses the updated Rising Stars: Switched On Computing scheme as a starting point to deliver the national curriculum programme of study. Our implementation of this scheme supports clear progression of skills from Years 1 to 6, preparing the students for the work that will be covered in the following years. Throughout the scheme, online safety and digital literacy is embedded, even within the other strands, to ensure the safe and responsible use of technology is at the centre of all teaching and learning.

Students study computing in blocks, and the content of each block is outlined in the school's Computing Knowledge and Skills Progression Map. This approach enables a project-based approach to computing and supports a greater depth of understanding throughout the focussed teaching block.

Haywards Farm Primary School believes that IT and computing:
- Gives students immediate access to a rich source of materials.
- Can present information in new ways, which help students understand access and use it more readily.
- Can motivate and enthuse students.
- Can help students to focus and concentrate.
- Offers potential for effective group working.
- Has the flexibility to meet the individual needs and abilities of each pupil.

ICT Curriculum Steps of Progression & Knowledge

KS2

Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

KS3

- Be able to effectively use a range of ICT based tools e.g. E-mail, Microsoft OneNote, Microsoft Teams.
- Be able to use basic and advanced functions of Microsoft Office software (desktop versions and online versions).
- Have a good understanding of how to use the internet to search safely and effectively.
- Understand the dangers of social media, primarily apps, and know how to customise security settings to help minimise risk.
- Be able to use a variety of pre-production planning documents when designing a media product for a given client brief.
- Be able to understand a client brief and explain what the client requires in terms of the final product.
- Be able to use basic tools in graphics manipulation software (Adobe fireworks and Adobe Photoshop).
- Be able to identify components used in a multimedia rich product.
- Be able to understand photography composition techniques and use them effectively and accurately in their own work.
- Be able to evaluate your own photos and improve them using photo editing software.
- Understand what is meant by ethical photo editing and demonstrate this in their photos
- To understand what is meant by interactive multimedia, identify how and why it is used in the real world and be able to create their own interactive multimedia product.
- Be able to understand the different threats to a computer system, and know how to protect against them, including how to keep personal details safe and the importance of doing so linking to the law.

KS4

- Be able to use a variety of pre-production planning documents when designing a media product for a given client brief.
- Be able to understand a client brief and explain what the client requires in terms of the final product.
- Be able to use basic and advanced tools in graphics manipulation software (Adobe fireworks and Adobe Photoshop).
- Understand and explain what is meant by the term 'multimedia.'
- Be able to identify and design components used in a multimedia rich product.
- Be able to identify, explain and evaluate a range of pre-production documents e.g., mind map, mood board, visualisation diagram, storyboard, script, work plan
- Have a secure understanding of legislations surrounding the use of existing assets and when creating new assets.
- Be able to use basic and advanced tools in sound manipulation software (Audacity)
- Be able to use and create a work plan when producing digital products.

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