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| Potions  Y3/4 | Engage  Week 1  3.11.20 | Develop  Week 2  9.11.20 | Develop  Week 3  16.11.20 | Develop  Week 4  23.11.20 | Innovate  Week 30.11.20 | Express  Week 7  7.12.20  14.12.20 |
| Maths  Year 3 | Addition and Subtraction | Addition and Subtraction | Addition and Subtraction | Multiplication and Division | Multiplication and Division  Professor Hazard has left Potions Class in a hurry, forgetting to lock his cabinet of ingredients! Wow! He has so many mysterious and intriguing potions. But what a mess! All mixed up and none of them labelled…  Spoken language  En SL 9 Participate in discussions, presentations, performances, role play, improvisations and debates.  Writing  En W C 1a Discuss writing similar to that which they are planning to write in order to understand and learn from its structure, grammar and vocabulary.  En W C 1b Discuss and record ideas.  Computing  Co 6 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.  D&T  DT D 1 Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups  Science  Sc SM 1 Compare and group materials together, according to whether they are solids, liquids or gases.  Sc WS 3 Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers.  The professor definitely needs some help sorting his ingredients! Can you sort them into groups of solids, liquids and gases?  The professor has left a range of sticky labels, each matching one of the potions. Can you put the right label on the right bottle?  Professor Hazard can be very forgetful… What about writing him a spell to help him be less so? Can you find examples of spells to help youget started? Harry Potter knew some good ones!  Which ingredients do you need from Hazard’s cabinet to concoct your spell? Can you list them? How much of each do you need? Remember to include detail of your measures in your spell!  Now let’s mix those spells… Cameras at the ready! What happens when you mix your ingredients? Take the shot…Eek! What’s happening?  What scientific processes are taking place? Make notes on your observations. Can you explain them to your fellow magicians?  How will you store your new potion? Choose a suitable bottle or container, remembering you’ll also need a label – you don’t want it falling into the wrong hands!  Present your potion to your other wizarding friends! What happened as they mixed their ingredients?  Take a digital picture of your finished, bottled potion. Upload and print your photo. Add it to a class ‘apothecary shelf’ display.  The annual ‘Best Contribution to Potion Discovery’ prize is to be announced. The winner will have their name on the Potion ‘wall of fame’. Invite Professor Hazard to come and judge the best potion!  Dress to impress when attending the annual awards. Prepare an acceptance speech, just in case you are the winner!    CONGRATULATIONS! You have completed your Innovation Challenge. | Multiplication and Division |
| Year 4 | Addition and Subtraction | Addition and Subtraction | Addition and Subtraction | Multiplication and Division | Multiplication and Division |
| Cornerstones Mathematics | Mathematics  Children could solve mathematical word problems based on the theme of ‘Alice in Wonderland’.  Ma M 4 Estimate, compare and calculate different measures; volume/capacity (l/ml). | | | |  |
| Speaking and Listening |  | Interview a parent or member of staff who has undergone medical or dental treatment under anaesthetic or a medical professional with knowledge of patient care during operations. Prepare questions to ask and take notes. |  | Invite some younger children to take part in witch or wizard training. Take on the roles of wizard or witch teachers – and dress up! Demonstrate how to recite spells and mix potions. Help younger children to recite the spells expressively. |  |
| Reading | Read the first chapter of Alice’s Adventures in Wonderland pausing at the point where Alice discovers a bottle marked ‘Drink me’. Predict what might happen next. Highlight words used by Lewis Carroll to describe Alice and consider what her actions tell us about her character. Role play Alice’s dilemma in pairs – one partner as Alice and the other as a friend advising her on what to do about the bottle. | Read a range of first-hand historical accounts of dentistry or surgery undertaken without anaesthetic. Make notes on things which shock or surprise them. Compare medical treatments in the past to today, referring back to the interview notes taken the previous day. | Listen to or read a simplified version of the story of Romeo and Juliet. Take part in discussions about the story, particularly the tragic ending. Consider questions such as ‘What was the effect of the potion in the story?’ |  | Read and discuss examples of a variety of non-chronological reports on solids, liquids and gases. Note key features observed and feed these back to the class, creating a class checklist that can be used when producing their own reports. |
| Writing | Make a safety label for Alice’s bottle. Think about any symbols and language that could and should have been used, including use of imperative verbs. Use number or bullet points to order their instructions and symbols to make sure the message is clear and easy to understand.  Transfer their labels from paper to sticky labels that can be displayed on a range of empty bottles and boxes and use these as part of a classroom display. Before designing a final copy, swap with a partner to check their work, making any amendments to ensure their message is as clear as possible. Invite the school Health and Safety representative to view their labels and provide feedback about their effectiveness.    Note  To extend, children could consider how they might turn their ideas into into a radio or TV advert as part of a wider safety advertising campaign.  En W C 3a Assess the effectiveness of their own and others’ writing and suggest improvements.  En W C 3b, 4; Co 6 | Focus – Letter writing  Create a timeline showing the history of anaesthesia, using the web and other source materials to locate information. Create information cards for each step on the timeline.    Imagine they are a doctor having just observed the first demonstration of surgery using ether. Write a letter to their fellow doctors describing what they have seen and explaining the effects of using anaesthetic.    Note  In 1846 William T. G. Morton, a dentist, provided the first public demonstration of surgery using ether. Morton performed a painless tooth extraction after administering ether to a patient. | Writing - focus – Playscript  Retell the main events of the story of Romeo and Juliet using a storyboard. Work together in groups to draft a sentence or speech bubble for each part of the storyboard sequence.    Discuss ideas for an alternative ending to the play. Perhaps something happier – or even a funny ending? Suppose a different potion was used – what might be the effects? Draft ideas for an alternative ending to the story, starting from the potion scene, in the form of a play script.    Act out finished versions in class using ‘character voices’ to bring their scripts to life. | Writing – Focus - Poetry  Read the spell from Macbeth Act IV, Scene 1: ‘Double, double, toil and trouble’. Begin to draft ideas for a spell of their own, beginning by writing a list of rhyming ingredients.  What outcome do they want from their spell? What magical, strange or gruesome effects will their spell have on the taker?    Note  Provide space for children to rehearse reading their spells aloud before a performance. | Writing  Imagine a group of aliens have contacted school wanting to find out the potential of Earth as a place to live. They have asked particularly about states of matter on our planet and would like some information sending to them about this.  Note  Explain that the aliens do not have water on their planet and are curious to find out about its remarkable properties. Perhaps the children could receive a letter from the aliens to inspire their thinking!  Record their reports and place recordings in a capsule to send to the aliens! |
| Science | Science  Sort empty packaging for a range of household products such as cleaning liquids, detergents, soap, washing tablets, medicines, bubble bath, shaving foam, aerosols, eye drops, bottled water, juice and mouthwash into groups of solids, liquids and gases.    Time for wacky races! Test the rates at which liquids flow (viscosity) down a ramp or sloping piece of guttering. Time how long it takes for five different fluids to reach the bottom. Your selection might include lemonade, oil, double cream, washing up liquid, treacle and ketchup.    Note  Throw in a ‘wild card’, the non-Newtonian liquid, cornflour and water. How does it behave? You will need to provide children with a stop watch, tape measure and a ramp or guttering for testing.  Measure temperatures using degrees Celsius (°C). Make predictions about the temperature of different jars or cups of water including those labelled ‘iced water’, ‘room temperature water’ and ‘hand-hot water’. Use a thermometer or data logger to take accurate temperature readings and record findings on simple graphs or charts. | Science.  Restart a heart! Observe the chemical reaction when a heart-shaped or red balloon is inflated using the magical ingredients of vinegar and bicarbonate of soda. Use a funnel to add bicarbonate of soda to a balloon. Pour vinegar into a bottle, carefully fitting the balloon over the bottle opening. Once fitted, allow the soda to fall into the vinegar to make carbon dioxide gas and watch the balloon inflate.    In a state! Fill some balloons with air, some with water and freeze some. Investigate the properties of each state by manipulating the balloons and using scientific vocabulary to describe their properties. Play with the balloons, drawing scientific conclusions about the properties of solids, liquids and gases.      Use marbles and a circular lipped tray to demonstrate. Fill completely with marbles for a solid, less for a liquid and a few for a gas. How do the particles move? How does this reflect what a solid, liquid or gas can do? |  | Science  Follow ’spells’ to make bones bendy! Explore the properties of bone before the investigation, recording their observations for later comparisons. Working scientifically, ensure that the effect of variables are explored, for example, using different volumes of liquid, different lengths of time or different temperatures. Answer scientific questions such as ‘Does the length of time the bone is in vinegar affect how much the bone bends? Do smaller size bones become ‘bendy’ sooner? Do different types of vinegar affect how bendy bones become?’    Use a kettle to investigate what happens when water is boiled. With an adult, pour cold water into a cup, cover with clingfilm or paper and heat in a microwave. Describe what happens in the heating and cooling water investigation, recording observations in a scientific report with diagrams or photographs.    Look at a range of everyday items that use gas. Explain how the gas has been used to suit the purpose of the item, or how the properties of the gas make the product hazardous. Use a simple data table to record their thinking.    Note  Items could include fizzy drink, deodorant, a bike tyre. Ask questions to promote scientific thinking such as ‘Why does a squirt of air freshener make the whole room smell better? Why is smoking a cigarette harmful to people around the smoker? Why does a football bounce higher than a bowling ball?’ | Science  Take part in a science quiz on the theme of solids, liquids and gases, drawing on their own experiences to support their answers and explanations. Work individually, in teams or with parents to mark their own answers and evaluate their success as well as things they need to remember. |
| PHSCE Y3/4 | Celebrating Difference | Celebrating Difference | Celebrating Difference | Celebrating Difference | Celebrating Difference |
| PE |  |  | PE  Create a group dance portraying the ‘potion scene’ from Romeo and Juliet. Work collaboratively to creatively express the scene’s main points, characters and narrative. |  | PE  Create group dances on the theme of Macbeth Act IV, Scene 1: ‘Double, double, toil and trouble’. Work together to portray sequences of movement that express the mood and atmosphere of the scene. |
| Music |  |  |  |  | Music  Listen to and choose percussion instruments to accompany their spells. Consider how these could be used to enhance the beat, rhythm or pulse and describe the effects they want to create. Practice and perform their poems with percussion accompaniment.    Note  Perform to an invited audience including peers, parents and carers. Invite the audience to join in with the chorus section of the spell.  Mu 2 Improvise and compose music for a range of purposes using the interrelated dimensions of music.  En SL 9; Mu 1 |
| Theme |  |  | History  Use a range of historical source materials to find out about how potions were used in the past for both medicinal and magical reasons. Make potions using a range of herbs and ingredients known for their mystical or medicinal properties. Write a description of their potion and its historical usage. |  | Computing  Look at the layouts of online shopping sites. Create a template for an online supplies catalogue for witches and wizards. Show all the available potions or equipment available to buy with pictures and detailed descriptions of each. Create an imaginative company name for their online catalogue.    Note  Children could create a page each, ordering available spells or products alphabetically. |
| Forest Schools | Perfume making from natural resources | Forest faces | Winter tree bunting | Tie Dye | Feed the birds  Christmas outdoors |
| Design and Technology |  |  | D&T  Make chocolate love hearts! Melt chocolate, adding additional ingredients for interest and taste such as finely grated orange peel, raisins or vanilla essence. Tie a ribbon around their heart and take it home with a message of love for a friend or family member.    Note  Use a range of different sized heart-shaped trays for interest. The hearts could be the antidote for the deadly potion! | D&T  Follow instructions (or ‘spells’) to make homemade bath bombs using harmless essential oils such as bergamot, chamomile, ginger, lavender and lemon. See what happens when they are placed in the water tray. | D&T  Make ice cream, ice pops or lollies with parents and carers, deciding upon which flavours and colours they would like to add. Experiment with colours, flavours, ingredients and shapes… the wackier, the better! Take digital photographs of their creations before eating! |
| Art and Design | Art & design  .  Observe a range of perfume bottles looking at shape, function and form. Design a fabulous bottle which could hold a magical potion using a sketch book to develop ideas about shape, colour, form and pattern. Create bottles using clay and finish by glazing. | Art & design  Use clay to create a model of a molecule. Paint or fire when dry and display with others as a collective class installation representing solids, liquids and gases. Consider how to ensure everybody’s molecule is of a standard size and how a smooth finish can be achieved. | Art & design  Take a picture from an unusual or thought-provoking viewpoint.  Create temporary art making ‘condensation hearts’ on a window. Breathe on a window to create condensation and draw different sized hearts in it. Take digital images of their temporary art and upload to a computer. Experiment with tone and colour before printing.    Look at the painting The Love Potion by Evelyn de Morgan and discuss the story the artist is trying to tell. Compare to other paintings that show scenes of love and love potions such as The Lovers by Rene Magritte, The Kiss by Edvard Munch and the John William Waterhouse painting Tristan and Isolde with the Potion. Think and talk to each other about the stories that the paintings communicate.    ’ Use the paintings as a starting point for a contemporary mixed-media collage (use newspaper and magazine clippings) on the theme of ‘Love potions’. | Art & design  .  Create large scale and collaborative canvas art using melted wax crayons. Melt crayons over a canvas using heat from a hairdryer and watch them mix to form new colours and textures. Work into the wax whilst soft to spread, print and add pattern. Use artistic and scientific language to describe the processes taking place. |  |