

POST - The Index

December 2007 For issues 1 - 40 of the CLEAPSS Primary Science & Technology Newsletter

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Disclosing tablets	Using these to investigate plaque on teeth.	22	3
Diseases, spreading	Simulating the spread of the cold virus using body glitter gel.	28	7
Dissolving / Melting	Suggested teaching strategies; distinguishing between these concepts.	8 4; 9 4; 10 7;	11 7
D-i-y guides	Instructions for making: a slope for rolling vehicles, a pinhole camera,	10 6;	11 6
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	temporary housing for plants and animals, a cell (battery) tester,	14 7;	15 6
	a magnetic compass, a large forcemeter, a light bulb tester,	18 6; 16 6;	17 6
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Drill, electric	Not appropriate for use by primary school children.	40	3
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Dyes	How to use cold-water dyes safely.	7	2
Earthworms	How do they reproduce?	23	2
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Eclipses & shadows	Using interest in the total eclipse to teach about light and shadows.	14	4
Eco-Schools	Becoming an Eco-School to reduce your environmental footprint.	40	4
Egg boxes / Toilet roll centres, safe use	No reason why these should not be used for practical work in science & technology.	32	2
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Eggs, incubating	Ensuring that infections cannot occur as a result of this activity.	19	6
	No need to worry about bird flu when incubating eggs.	35	3
Eglus	Designer chicken coops or rabbit/guinea pig hutches.	38	7
Electrical circuits	Bulbs in series; why aren't they always equally bright?	5 5;	10 2
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	A 'dominoes' game to help in teaching about electrical circuits.	28	2	
	Matching light bulb and battery voltages for simple circuit work.	29	3	
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	Electric drill	Not appropriate for use by primary school children.	40	3
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Esso resource pack	Details of free activity pack linked to service station visits.	8	3	
Experiments in science	Discussion of the terminology to use: 'variables' or 'factors' in scientific activities.	29	2	
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First Aid	Bleach; what to do if a child sips it.	5	5	
Forces	Approaching the topic at KS 2.	6 4;	7 4	
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Freezing cells	Explaining how cells and tissues can survive a period being frozen.	26	2	
Friction	The directions in which it is exerted on a shoe when walking.	7	2	
Frog spawn	Collecting from common species <i>is</i> legal. See also entries under 'Tadpoles'.	2 3;	15 7	
Fungi	Discussion of investigations of the growth of fungi in primary schools.	27	4	
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	Polystyrene: is it hazardous? (Not really, unless pupils stuff it right up their noses!)		12 2	
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	Hearing and sound	Teaching about sound and how it travels in a practical and investigative way.		24 4
	Heat	Explaining aspects of the concept by comparisons with the behaviour of water.		17 4
Heating & burning	Information and ideas to clarify what happens when materials are heated and/or burnt.		13 4	
Herbivores, how they gain their protein	Explaining how herbivores build up protein-packed bodies on a meagre diet of grass which doesn't contain much protein.		26 2	
Heron Education	Now part of the Novara Group.		19 7	
Icebergs	If salt water does not freeze easily, why are there icebergs in the sea?		34 3	
Identification resources	Using simple keys to identify objects. Resources to help identify animals and plants.		30 4	
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Instant Snow	Polymer which absorbs water to look and feel like snow.		40 2	
Insulators & conductors	Using a Buzz box to study resistance and current flow.		20 5	
Intel microscope	New computer microscope: good for lower magnifications and excellent software.		21 2	
	News of a free microscope for every primary school in England.		23 3	
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Interactive science centres	Locating science centres around the country.		40 6	
Interactive whiteboards, safety	Health & Safety Executive issues guidance to reduce risks from looking at light beam from data projectors.		32 3	
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Iron filings	Their safe use in schools - <i>if</i> your LEA hasn't banned them.	13 3;	37 6	
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Kites and forces	Making and flying kites and the forces involved.		27 6	
Kites & power cables	What really would happen if a kite became entangled in an overhead power cable?		10 2	
Kits for Science	Take care not to waste your money on cheap kits.		2 7	
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Laser pointers	What are the hazards if a pupil brings one in to school?		10 3	
Lead pencils	Investigating pencils to see whether the 'lead' conducts electricity.		24 3	
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Light bulbs	A source of 4.5 V bulbs; useful for working with a range of currents.		20 5	
Light-bulb tester	Instructions to make a d-i-y tester to check the functioning of light bulbs.		18 6	
Light-bulb voltages	Matching light-bulb and battery voltages for simple circuit work.		29 3	
Light laboratory	Constructing apparatus to permit work with ray boxes etc in a normal classroom.		12 7	
Light 'meter'	A simple d-i-y construction to measure the intensity of light sources.		20 6	
Light & shadows	Using interest in the total eclipse to teach about light and shadows.		14 4	
Light, teaching about	Making a ray board to produce models to help explain ideas about light and shadows.		23 4	
Literacy & science	Review of a new book which helps to develop literacy through science activities.		14 6	
Little Book of Experiments	Discussing an activity simulating tooth decay included in this Hodder & Stoughton book, sent free to all primary schools in England.		26 2	
Living and non-living	Suggestions for teaching about living and non-living things. Using brine shrimps: eggs seem quite 'dead' but animals soon hatch out in salt water.		28 4	
Magnetic board display	Details of a magnetic board display unit for use in literacy, numeracy and science work.		18 7	

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Magnetic coins	Old coins were pure copper and not magnetic; new coins are steel and are magnetic.	11	2
Magnetic compass	How to make one using simple materials.	16	6
Magnetism and metals	Is tin magnetic?	24	2
Magnets: storage	Some tips.	8	2
Mains-operated equip.	Explaining the need for an earth wire in some mains-operated equipment.	18	3
'Man-made' vs 'natural'	Exploring the difficulty of distinguishing between 'natural' and 'man-made' materials.	18	4
Materials	Exploring the difficulty of distinguishing between 'natural' and 'man-made' materials.	18	4
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Materials Cards for Primary Schools	News of, and how to use, this set of cards from the Royal Society of Chemistry, sent free to all primary schools in the United Kingdom.	26	3
MDF	What are the risks of using Medium Density Fibreboard in primary technology?	10	3
Melting chocolate	Tips on how to melt chocolate with a nightlight flame.	33	2
Melting / Dissolving	Suggested teaching strategies; distinguishing between these concepts.	8 4; 9 4; 10 7;	11 7
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	Working with yeast.	28	3
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	Discussion of helpful and harmful types and working safely with microbes.	29	4
Microscopes	Choosing microscopes; <i>Royal Microscopical Society</i> initiatives.	4	4
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	News of a free Intel microscope for every primary school in England.	23	3
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	News of a new digital microscope: the Motic Digiscope.	26	3
	Web site support and free downloads for using the Intel microscope.	27	2
Microscopy Photocopy Activity Masters	Warning of an unsafe and unworkable investigation in <i>Microscopy Photocopy Activity Masters</i> from Hands-on Publishing.	25	7
Mixing paints & light	Article discussing aspects of the behaviour of light and perception of colour.	15	4
Mixtures	Teaching about colloids: mixtures which have unusual properties.	16	4
Modelling clays	Sources of plasticine/modelling clays that do not dissolve in water.	22	3
	Safety issues of making skin contact with <i>Newclay</i> and <i>Plasticine</i> .	40	2
Models for teaching science	Making d-i-y models to teach about the function of various animal structures: joints, gas exchange surfaces and the heart as a pump.	22	4
	Making a ray board to produce models to help explain ideas about light and shadows.	23	4
	Using models to help pupils understand how sound travels through different media.	24	6
ModRoc	Although this contains plaster of Paris, it can be used safely.	40	2
Mummification	Guidance on activities to investigate mummification, as suggested on QCA web site.	28	3
Musical instruments	Instructions for making a two-stringed 'guitar' for use when investigating sounds, pitch and loudness.	25	6
	Further instructions for constructing a 'drum', reed instrument and 'pan pipes'.	26	6
National Curriculum Science tests	Implications of the QCA report on performance in SATs for teaching & learning and scientific enquiry.	27 4; 34 2;	35 2
	A critical evaluation of the science SATs, 2006.	36	4
	... and comments from a teacher.	37	3
	... and more comments from teachers and an assessment adviser	38	3
	Examples of work attaining Level 5.	39	4
National science week	Celebrating national science week with a science fair at school.	34	6
'Natural' vs 'man-made'	Exploring the difficulty of distinguishing between 'natural' and 'man-made' materials.	18	4
Omlet	The company selling the Eglu: a designer chicken coop or rabbit/guinea pig hutch.	38	7
Owl pellets, handling	The safest method is to sterilise the pellets in a pressure cooker.	22	3
Paints, spray	Hazards of using acetone-based spray paints.	15	2
Pan pipes	Instructions for making 'pan pipes' for use when investigating sound, pitch and loudness.	26	6
Parachutes and forces	Considering the forces involved when a parachute falls.	27	5
Pencils	Investigating whether the 'lead' in pencils can conduct electricity.	24	3
Penguins	Do they have knees? (They do!)	18	3
Pinhole camera	Instructions for making a sturdy pinhole camera.	11	6
Planetaria	Inviting into school an inflatable planetarium.	40	5
Plants, Action for	A new, free, resource of information and activity sheets; very useful for identifying plants.	13	6
Plants and their food	Attempting to avoid confusion between photosynthesis and providing minerals.	9	1
Plants & water transport	Using celery and Busy Lizzie cuttings for investigations.	10	2
Plants, book review	Details of the book and CD-ROM <i>Primary Plants</i> by Martin Braund from Questions Publishing Company.	25	3

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Plants, growing	Using plastic drinks bottles to make a chamber for growing plants.	14	7
	Using pumpkin seeds for studies of plant growth.	33	3
	Using self-watering systems with seeds grown in film canisters.	36	2
Plants in the school grounds	Suggestions of the adaptations to look for when investigating the plants that colonise walls, cracks and crevices.	25	2
Plants, using	Details of a new newsletter for primary schools from Science and Plants for Schools.	23	3
Plaster of Paris	Warning not to use it to make casts of body parts because of the danger of burns	38	2
	Use of Plaster of Paris in <i>ModRoc</i> is not likely to have safety issues.	40	2
Plasticine, non soluble	Sources of modelling clays that do not dissolve in water.	22	3
Poisonous plants	Is it safe to plant foxgloves in a school garden?	11	2
Polystyrene	Is it hazardous? (Not really, unless pupils stuff it right up their noses!)	12	2
Power tools	Not appropriate for use by primary school children.	40	3
Primary Plants	Details of the book and CD-ROM by Martin Braund from Questions Publishing Company.	25	3
Primary/secondary liaison	Discussion of pitfalls to avoid when organising links and visits between primary and neighbouring secondary schools.	27	3
Protein manufacture in herbivorous animals	Explaining how herbivores build up protein-packed bodies on a meagre diet of grass which doesn't contain much protein.	26	2
Pumpkin seeds	Using pumpkins as a source of useful seeds for germination and growth studies.	33	3
QCA web site	Resources on QCA web site for Y6 pupils capable of showing performance at level 6.	28	3
Rechargeable cells	A new type of alkaline cell that is rechargeable and could save you money.	11 3;	12 3
Reed instrument	Instructions for making a reed instrument for use when investigating sound, pitch and loudness.	26	6
Royal Horticultural Soc.	Campaign to encourage schools to teach the National Curriculum through gardening.	40	5
Royal Society of Chemistry	News of, and how to use, a set of <i>Materials Cards</i> , sent free to all primary schools in the United Kingdom.	26	3
Safety	See 'Health & safety' and 'Teaching Safety'.		
Sainsbury's vouchers	Warning of power supply needed for Harris light box set; Electrosound unit.	8 6;	9 5
SAPS	Details of a new newsletter for primary schools from Science and Plants for Schools.	23	3
	New publications for primary schools.	36	2
SATs	Implications of the QCA report on performance in SATs for teaching & learning and scientific enquiry.	27 4;	34 2;
	A critical evaluation of the science SATs, 2006.	35	2
	... and comments from a teacher.	36	4
	... and more comments from teachers and an assessment adviser	37	3
	Examples of work attaining Level 5.	38	3
Schemes of work	Incorporating health & safety.	39	4
School gardening	The Royal Horticultural Society campaign to encourage schools to use gardening to teach the National Curriculum.	5	5
School gardening	The Royal Horticultural Society campaign to encourage schools to use gardening to teach the National Curriculum.	40	5
Science & Plants for Schools	Details of a new newsletter for primary schools from SAPS.	23	3
Science clubs	Managing an after-school science club; pros, cons and ideas for activities.	38	6
Science events	Tips on organising various events to raise the profile of science in schools	40	6
Science fairs	Tips on organising a science fair to raise the profile of primary science in schools.	39	6
Science teaching hours	Recommendations on time to be spent teaching science at KS 1 and 2.	9	1
Science visits	Some suggestions for organising science events, both in and out of school.	40	6
Scientific enquiry	Discussion of the terminology to use: 'variables' or 'factors' in scientific activities.	29	2
	Discussion of the terms, 'valid', 'significant' and 'reliable' in scientific activities.	32	6
	Implications for scientific enquiry of the QCA report on performance in SATs.	35	2
Sea monkeys	See entries for 'brine shrimps'.		
Seed dispersal	Seeds dispersed in bird droppings; hazards discussed.	15	7
Seeds, sources of	Where to obtain seeds that are safe to handle.	33	2
	Using pumpkins as a source of useful seeds for germination and growth studies.	33	3
Service stations	Details of free activity pack from Esso linked to service station visits.	8	3
Shadows and eclipses	Using interest in the total eclipse to teach about light and shadows.	14	4
Signs & symbols	An ASE booklet which explores these - and much more.	12	6
Simulations, computer	The pros and cons of using simulations, rather than practical activities.	31	4
Skeletons	Considering the arrangement of bones in the legs of birds.	18	3
Slopes	Instructions for constructing slopes for rolling cars and balls.	10	6
Smoking machines	If these are used, care must be taken to avoid exposure to cigarette smoke and tars.	35	6
Snails	Where are their brains?	16	2
	Debunking the myth that giant African land snails cause meningitis.	30	2
Sound and hearing	Teaching about sound and how it travels in a practical and investigative way.	24	4
	Using models to help pupils understand how sound travels through different media.	24	6

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Sound and musical instruments	Instructions for making various instruments for use when investigating sounds, pitch and loudness.	25	6
Sounds from bottles	Explaining why the sounds produced by blowing across a bottle and tapping it do not change in the same way as water is poured into the bottle.	22	2
Sound, speed of	How one school measured the speed of sound in its playground.	25	4
Spectacles and goggles	Are they necessary for primary science & technology?	8	2
Speed of sound	How one school measured the speed of sound in its playground.	25	4
Sphere Science	Information about the training courses and workshops offered.	39	7
Steam vs water vapour	The differences between these two terms.	14	3
Storage of science equipment	How teaching assistants can help in the classroom in the storage and distribution of science equipment and other resources.	34	4
Suppliers of resources	Getting value for money when purchasing science/technology resources.	5	3
	Centre for Alternative Technology.	22	6
	EDCO.	5	7
	Educational Electronics/Data Harvest.	3	3
	Field Studies Council and Gamekeeper Educational for keys and identification aids.	30	5
	GLS/CSSL/PSM.	5	7
	Heron Education now part of the Novara Group.	19	7
	Osmiroid products: now from Economatics.	5	7
	Pied Piper Educational Resources.	22	6
	Primestar.	22	6
	Sheffield Purchasing Organisation.	5	7
	Sphere Science Ltd. 5 7; 22 6;	23	3
	Technology Teaching Systems.	22	6
	Understanding Energy (The Electricity Association).	22	6
Symbols	For drawing electrical circuits.	15	2
	Symbol for a battery or cell and voltages.	16	2
	Symbol for a switch; must be drawn correctly in SATs.	16	3
	A useful, free wallchart showing the correct symbols to use.	16	3
	Helping pupils become familiar with the idea of using symbols and news of a free, downloadable, CLEAPSS teaching resource to aid understanding the correct use of symbols for electrical components.	23	6
	The symbols to use for two or more batteries when drawing electrical circuits.	28	2
	A 'dominoes' game to help in teaching the symbols for electrical circuits.	28	2
Tadpoles	Correcting misinformation in <i>Child Education</i> about keeping spawn and tadpoles.	15	7
	Keeping tadpoles in the classroom.	29	3
	Collecting tadpoles.	38	5
Teaching enquiry skills	Some suggestions for this difficult aspect of Sc1.	26	4
	Discussion of the terminology to use: 'variables' or 'factors' in scientific activities.	29	2
Teaching assistants and safety	How teaching assistants can help in managing health and safety in the classroom.	33	4
Teaching assistants and storage of equipment	How teaching assistants can help in the classroom in the storage and distribution of science equipment and other resources.	34	4
Technology	<i>Technology Teaching Systems</i> ; review of video for KS 1/2 teachers.	3	3
	Safety in technology, various articles	32	2; 32 4
Teeth	Human teeth; safe use in schools.	5	5
	Choosing words to describe the functions of teeth.	18	2
	Using disclosing tablets to investigate plaque.	22	3
	Explaining an activity from the <i>Little Book of Experiments</i> in which egg shells are placed in cola and fruit drinks to simulate the decay of teeth.	26	2
	Human teeth; safe use in schools.	29	2
Temperature-sensitive film	Source of this material for investigations on heat and temperature.	8	3
Theatre companies	Inviting into schools visiting theatre shows to promote science topics.	40	6
Thermometers	Beware of the information in suppliers' catalogues; it is often misleading.	21	3
Thermometers, broken	Dealing with mercury spilt when a thermometer is broken.	14	3; 30 2
Tin cans	Although tin is not magnetic, cans are because they are made of steel with a tin coating.	24	2
Toilet roll centres / Egg boxes	Debunking the myth that these are banned nationally.	8	2
	Reinforcing earlier advice that these are not dangerous to use in practical work.	32	2
Tools, security	Tools must be under lock and key to ensure that schools do not fail in their duty of care.	32	2
Tools, safety poster	<i>Be Safe!</i> suggests a safety code for using tools which can be used in producing a poster.	32	2
Tooth decay	Explaining an activity from the <i>Little Book of Experiments</i> in which egg shells are placed in cola and fruit drinks to simulate the decay of teeth.	26	2
Transit of Venus	Viewing this event safely.	29	6
Two-stringed 'guitar'	Instructions for making a two-stringed 'guitar' for use when investigating sound, pitch and loudness.	25	6

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Variables in science	Discussion of the terminology to use: 'variables' or 'factors' in scientific activities.	29	2
Venus, transit of	Viewing this event safely.	29	6
Viewing the Sun	Safety warnings and the use of spectacle-style viewers/projection methods.	13 6; 14 2;	29 6
Viruses	Simulating the spread of the cold virus using body glitter gel.	28	7
Voltages of light bulbs	Matching light-bulb and battery voltages for simple circuit work.	29	3
Water box	Review of resource kit for investigating water at KS 2.	7	2
Water habitats, visiting	Discussion of the value of using water habitats for science studies.	38	4
Water vapour vs steam	The differences between these two terms.	14	3
Wind speed 'meter'	Ideas for making a simple device to measure wind speed using a cardboard box.	21	6
World of Microbes	Review of key stage 2 pack on studying microbes.	28	7
Worms	How do earthworms reproduce?	23	2
	Help in setting up a wormery.	37	2
Year of Food & Farming	News of new web site and activities for 2007/2008 on growing foods, nutrition etc.	39	5
Yeast	Comparing activities of fresh and dried yeast.	28	3