



## WATER & LIQUIDS

A collection of experiments investigating the properties of water and other liquids

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### Curriculum Links

**Sc1** Testing ideas, planning & carrying out investigations, observing & measuring, making comparisons & fair tests

**Sc3** Comparing everyday materials & their properties, evaporation and condensation in the water cycle, separating mixtures of materials

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### Summary of Experiments

*General Format: Two whole class activities and three small group or demonstration activities.*

- FILTERING & EVAPORATING ~ to separate solids & liquids
- THE CARBON TRAP ~ an investigation into cleaning water
- MARBLE RACE ~ to compare the viscosity of different liquids
- WATER ON THE MOVE ~ learn about capillary action
- CRYSTAL CREATIONS ~ grow some beautiful crystals

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### Health & Safety Considerations

SOME EXPERIMENTS REQUIRE LAB-COATS (OR SIMILAR E.G. PAINTING APRONS) & EYE-PROTECTION – SAFETY GLASSES OR GOGGLES

#### **CLOSELY SUPERVISE CHILDREN WHEN USING CANDLES**

! NO EATING OR DRINKING IN THE LABORATORY

! ALWAYS WASH YOUR HANDS AFTER DOING SCIENCE

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**Box Development by:** Liz Gorad, St George's Primary School



## WATER & LIQUIDS BOX

### EQUIPMENT LIST

Item	Number in Box	For Experiment/s	Returned?
100ml Beakers, plastic	10	Filtering & Evaporating The Carbon Trap	
250ml Beakers, plastic	10	Filtering & Evaporating Water On The Move The Carbon Trap Crystal Creations	
Stirring rods, plastic, short	10	Filtering & Evaporating The Carbon Trap Crystal Creations	
Filter Funnels, plastic, 90mm dia.	10	Filtering & Evaporating The Carbon Trap	
Safety Mats	10	Filtering & Evaporating	
Tripods, 125mm w. x 100mm h.	10	Filtering & Evaporating	
Watch Glasses, 130mm dia.	10	Filtering & Evaporating	
Acrylic Tubes	5	Marble Race	
Bungs, no. 23	10	Marble Race	
Funnel (to fit acrylic tubes)	1	Marble Race	
Marbles	10	Marble Race	
Plastic Jug, 1 Litre	1	Marble Race	
Plastic Screw-top Bottles for solutions (500ml)	5	Marble Race	
Stopwatches	5	Marble Race	
500ml Beaker, plastic	1	Water On The Move	
Small plastic bowls	6	Water On The Move	
Thermometer	1	Crystal Creations	

### CONSUMABLES LIST

Item	Amount in Box	For Experiment/s	Returned?
Filter paper, circular (to fit 90mm funnels)	2 pks	Filtering & Evaporating The Carbon Trap	
Tea Light candles	20	Filtering & Evaporating	
Matches (long)	1 box	Filtering & Evaporating	
Plastic teaspoons	15 + spares	The Carbon Trap Crystal Creations	
Weighing Boats	15 + spares	The Carbon Trap Crystal Creations	
Plastic pipettes (3ml)	4 + spares 1	Water On The Move The Carbon Trap	



## WATER & LIQUIDS BOX

### CONSUMABLES CONT.

Activated charcoal	500g	The Carbon Trap
Malt vinegar	1 litre	The Carbon Trap
Washable Fountain Pen Ink	50ml	The Carbon Trap
Food colouring – 4 different colours	250ml of each colour	Water On The Move
Paper towel	2 rolls	Water On The Move
String (thick, white)	1 ball	Water On The Move
Salt (sodium chloride)	500g	Marble Race
	250g	Crystal Creations
Sugar	250g	Filtering & Evaporating
	500g	Marble Race
Vegetable Oil	500ml	Filtering & Evaporating
Baby Oil	500ml	Marble Race
Epsom Salts (magnesium sulphate)	250g	Marble Race
Alum (aluminium potassium sulphate)	250g	Crystal Creations
Bicarbonate of Soda (sodium bicarbonate)	250g	Crystal Creations
Cream of Tartar (potassium hydrogen tartrate)	250g	Crystal Creations

### TO BE PROVIDED BY SCHOOL

Item	Number / Amount required	For Experiment/s
Other soluble & insoluble solids e.g. sand, soil etc	Approx. 250g of each	Filtering & Evaporating
Water	1500ml	Marble Race
White Carnations	1 per group	Water On The Move
Celery	1 stick per group	Water On The Move
Kettle (or source of hot water)	1	Crystal Creations
Clear plastic cups or trays	1 per child/group	Crystal Creations
Pipe Cleaners	1 per child/group	Crystal Creations
Cotton Thread	1 reel	Crystal Creations
Pencils	1 per child/group	Crystal Creations