



BRIGHT SPARKS EASTER 2019 HOLIDAY CLUB

@ Winchester Science Centre

Food Science	Cooking is really an artistic variation of chemistry! Learn how to turn your kitchen into a laboratory and discover which foods are high in sugar, contain starch, how temperature changes affect the results and create some marvellous edible mixtures along the way. Everything edible hides something incredible. We want to blow your mind with food!				
Weekday	Monday	Tuesday	Wednesday	Thursday	Friday
Dates	08-Apr	09-Apr	10-Apr	11-Apr	12-Apr
	15-Apr	16-Apr	17-Apr	18-Apr	-
Theme	Sweet Science	Kitchen Chemistry	Eggstraordinary Eggsperiments	Edible Engineering	Taste Buddies
8.00-9.00 am (optional)	BREAKFAST CLUB	BREAKFAST CLUB	BREAKFAST CLUB	BREAKFAST CLUB	BREAKFAST CLUB
9.00 - 9.15 am	WELCOME & WARM-UP	WELCOME & WARM-UP	WELCOME & WARM-UP	WELCOME & WARM-UP	WELCOME & WARM-UP
9.15 - 9.30 am	ACTIVITY INTRODUCTION	ACTIVITY INTRODUCTION	ACTIVITY INTRODUCTION	ACTIVITY INTRODUCTION	ACTIVITY INTRODUCTION
9.30 - 10.20 am	Session 1	Session 1	Session 1	Session 1	Session 1
10.20 - 10.40 am	BREAK TIME				
10.40 - 11.30 am	Session 2	Session 2	Session 2	Session 2	Session 2
11.30 - 12.20 pm	Session 3	Session 3	Session 3	Session 3	Session 3
12.20 - 1.20 pm	LUNCH TIME				
1.20 - 2.10 pm	Session 4	Session 4	Session 4	Session 4	Session 4
2.10 - 3.00 pm	Session 5	Session 5	Session 5	Session 5	Session 5
3.00 - 3.50 pm	Session 6	Session 6	Session 6	Session 6	Session 6
3.50-4.00 pm	DAILY CAMP RE-CAP & WRAP UP CAMP				
4.00 pm	HOME TIME	HOME TIME	HOME TIME	HOME TIME	HOME TIME
4.00-6.00 pm (optional)	AFTERNOON CLUB	AFTERNOON CLUB	AFTERNOON CLUB	AFTERNOON CLUB	AFTERNOON CLUB



BRIGHT SPARKS EASTER HOLIDAY CLUB @ Winchester Science Centre

Weekday	Monday 8th & 15th April 2019	
Theme	Sweet Science	
Brief	When you explore the science behind your food, you can discover some extraordinary, experimental secrets. Want to try some alternative baking? Lets try these mad recipes to cook in the baking laboratory and create a batch of sweet science!	
9.00am	WELCOME & INTRODUCTION	
Session 1	Cake Pop Planets - design an edible exo planet and make a tasty treat	Armpit Fudge - use the friction and heat of the human body to mix ingredients to make a gross but tasty treat!
10.20 - 10.40 am	BREAK TIME	
Session 2	Explore the centre	
Session 3	Chocolate Chaos Lollies - heating it up and cooling it down, demonstrating the changes of state as the chocolate melts and sets again.	
12.20 - 1.20 pm	LUNCH TIME	
Session 4	Marshmallow Mashers - observe the effect of air pressure on marshmallows	Colourful Candy - Skittles Chromatography. Separate the bright dyes of these colourful sweets
Session 5	Explore the centre	
Session 6	Amazing Chemistry of Candy Floss - It's a fairground treat that's super sweet – but could it have some useful secrets for medical science?	Exploding Kernels - this fun inquiry activity about the science behind popcorn's pop
3.50-4.00 pm	DAILY RE-CAP, WRAP UP CAMP & COLLECT BAGS	
4.00pm	HOME TIME	



BRIGHT SPARKS EASTER HOLIDAY CLUB @ Winchester Science Centre

Weekday	Tuesday 9th & 16th April 2019	
Theme	Kitchen Chemistry	
Brief	Our Kitchens are full of science. Measure substances carefully to mix up a fantastically fizzy concoction, find the clues that indicate a reaction, and use laboratory equipment to formulate your own drinkable potion!	
9.00am	WELCOME & INTRODUCTION	
Session 1	Cabbage Colour Chemistry - discover the sensitive chemicals in cabbage that change colour depending on the environment	Drinkable Potions - An Accurate measuring challenge to mix your own potion
10.20 - 10.40 am	BREAK TIME	
Session 2	Explore the centre	
Session 3	Food Powered Rockets - Blow rockets up with food in the pursuit of science!	Cork poppers - Many reactions release gas. But what would happen if we tried to bottle it up?
12.20 - 1.20 pm	LUNCH TIME	
Session 4	Food Detectives: explore the sugar content of common items and learn about food groups	Food Hygiene - some microbes are useful for making yogurt and others can make us ill. Discover how to keep food safe and the germs away.
Session 5	Explore the centre	
Session 6	Molecular gastronomy - an area of food science that explores how to make spheres using spherification	Emulsifiers - oil & water don't mix, so let's use this knowledge to create a milk kaleidoscope
3.50-4.00 pm	DAILY RE-CAP, WRAP UP CAMP & COLLECT BAGS	
4.00pm	HOME TIME	



BRIGHT SPARKS EASTER HOLIDAY CLUB @ Winchester Science Centre

Weekday	Wednesday 10th & 17th April 2019	
Theme	Eggstraordinary Eggsperiments	
Brief	Explore the characteristics of an egg's material and shape and complete easy and fun experiments that can be done with eggs! Encompassing a number of different scientific principles, including air pressure, acid/base reactions, osmosis, inertia, density, forces, and architectural structures. Some Egg-ceptional Science!	
9.00am	WELCOME & INTRODUCTION	
Session 1	Hardboiled or Raw - Can you squeeze an egg without breaking it? How do you know if it's hard boiled or raw?	Naked Eggs - discover the effects of an acid on an eggshell with naked eggs, ghost eggs and bouncing eggs.
10.20 - 10.40 am	BREAK TIME	
Session 2	Explore the centre	
Session 3	Microwave Meringue - Explore the science behind these fluffy egg whites.	Eggstacle Course - Toss game and Egg & spoon races
12.20 - 1.20 pm	LUNCH TIME	
Session 4	Egg Shaped Stress Balls - Homemade stress balls are fun to make and can be squeezed into funny shapes.	Hatch an egg GAME - discover what animals will hatch out of an egg
Session 5	Explore the centre	
Session 6	HUMPTY DUMPTY EGG DROP CHALLENGE - The egg's unique shape gives it tremendous strength. But launch it into the air and you'll discover it's fragility. Design and construct some type of container that will keep a raw egg from cracking when dropped from ever-increasing heights!	
3.50-4.00 pm	DAILY RE-CAP, WRAP UP CAMP & COLLECT BAGS	
4.00pm	HOME TIME	



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Weekday	Thursday 11th & 18th April 2019	
Theme	Edible Engineering	
Brief	What's more fun than eating your snack? Playing with your snack too! Specifically engineering play, creating edible structures. Become engineers for the day, building structures out of spaghetti and marshmallows, and investigating the properties of molecules and materials.	
9.00am	WELCOME & INTRODUCTION	
Session 1	Marshmallow Molecules - use the marshmallows and toothpicks to create a Water molecule	Balancing Sculptures - experiment with the design of your sculpture to find out what affects whether or not it balances.
10.20 - 10.40 am	BREAK TIME	
Session 2	Explore the centre	
Session 3	Gritting roads and frozen frogs - discover how to prevent water from freezing and make ice melt faster.	
12.20 - 1.20 pm	LUNCH TIME	
Session 4	Spaghetti Towers - experiment with the construction of your tower to find out which shapes are best for building with.	
Session 5	Explore the centre	
Session 6	Edible Rovers - become a Mars exploratory rover engineer! Evaluate your rover equipment options and determine what parts fit in the NASA budget. Teams use these constraints to design their rover from edible materials.	
3.50-4.00 pm	DAILY RE-CAP, WRAP UP CAMP & COLLECT BAGS	
4.00pm	HOME TIME	



BRIGHT SPARKS EASTER HOLIDAY CLUB @ Winchester Science Centre

Weekday	Friday 12th April 2019	
Theme	Taste Buddies	
Brief	Do your taste buds tingle? Can your tongue savour the flavours? Let's tantalise your taste buds and excite your nostrils as we explore why we like some food and drinks, but not others.	
9.00am	WELCOME & INTRODUCTION	
Session 1	Spit science – On average we produce a litre of saliva per day. This helps our taste buds help us detect flavours, but how?	Sweet bread – explore how enzymes in your saliva can break down the carbohydrates into sugar.
10.20 - 10.40 am	BREAK TIME	
Session 2	Explore the centre	
Session 3	Are you a super taster? – Supertasters have many more taste buds than usual and are much more sensitive to certain tastes and flavours.	Taste testing – can your tongue work out which liquid is sweet, sour, bitter or salty?
12.20 - 1.20 pm	LUNCH TIME	
Session 4	Smell test - Can you match the smells to the cards?	Odour Discrimination Memory Test - smells are often associated with memories, so let's test your olfactory short-term memory.
Session 5	Explore the centre	
Session 6	Make - Sherbet and see how each ingredient changes the flavour.	Burp-able bubbles – water doesn't really have a flavour, but if you carbonate it will its flavour change?
3.50-4.00 pm	DAILY RE-CAP, WRAP UP CAMP & COLLECT BAGS	
4.00pm	HOME TIME	