

www.ministryofscience.org



### MINISTRY OF SCIENCE LIVE!

100% EDUCATIONAL **200% ENTERTAINING 300% EXPLOSIVE** 400% FUN

WARNING. WARNING. THIS IS A PUBLIC SAFETY ANNOUNCEMENT! PLEASE KEEP YOUR HEAD FIRMLY ON YOUR SHOULDERS AND YOUR ARMS, LEGS AND FEET FIRMLY INSIDE THE RIDE AT ALL TIMES...

### MINISTRY OF SCIENCE IS ABOUT TO EXPLODE ONTO THE STAGE!

Ministry of Science Live is not your ordinary science show – it comes with a bang. Hydrogen Bottle Rockets. It comes with a whoosh. But most of all is comes with a hovercraft built on stage.... Oh, and a Human Cannon too! This new production takes an anarchic approach to science communication whilst looking at the inventors and engineers who have shaped and inspired the modern world

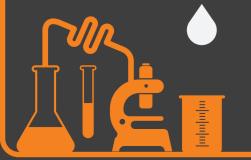
that we live in. From Liquid Nitrogen frozen flowers to From Buzz Aldrin to Virgin Galactic. From a cat food tin to the Hovercraft. From the discovery of Methane to the invention of the Battery. Join the super talented presenters and the voiceover from above (X Factor's Peter Dickson) as they take you on a journey using brilliantly designed demonstrations with a few

loud bangs to lead the way. Fingers in ears advised...



St Mary's School absolutely loved the show. I now have a class of children who are all asking questions about science. Well done Ministry, what a fun and brilliant approach to science

Mrs Wilson, St Marys School







### **SHOW INFO**

Ministry of Science Live is a 90 minute show which takes the audience on a journey through the different types of energy using demonstrations and historical references as the narrative. Combining the world of education with live experiments and the history of science and engineering the interactive shows aim is to focus, inspire and educate through the medium of live theatre. We hope to illustrate the importance of science and engineering in shaping the world we currently live in and the world that our young people will shape.

The production launched in autumn 2014 in Northern Ireland playing ten performances at the 1600 capacity Millennium Forum theatre to capacity audiences made up of both schools and family performances.

In March 2015 Ministry of Science "Pocket Sized Science" played across 10 schools in Dubai and Al Adin before arriving at the Abu Dhabi festival as part of their education programme. Due to the

success of pocket sized science in the region the full Ministry of Science Live theatre production will headline the education programme at the festival in 2016.

Ministry of Science Live launched its UK theatre tour in May 2015 playing some of the UK's best known regional theatres. Initially 22 regional theatres were confirmed but a little after 3 weeks of launching a further 26 venues with added. Currently,

the 2015 tour will play a total of 48 No 1 theatre venues across the UK with both schools matinees and family performances planned. The show will also headline both CultureTech Festival in 2015 and the Festival of Rugby as part of the Rugby world cup celebrations.

2016 will see another UK tour, the Middle East tour including Dubai & Abu Dhabi and also a large scale event in Bahrain has purchased the theatre production.





## WARNING. WARNING.

NAME: Ministry of Science Live! PRODUCER: Mark Thompson Productions Limited. MINIMUM SPACE: 14m by 6m AUDIENCE: Up to 1,500 seats although scalable with cameras. TIMING: Multiple shows a day possible. Minimum 30 minute reset if back to back

> performances. DURATION: 90 minutes per show (60 minute version

available without interval)

TARGET: To engage young people in Science and Engineering.











### THE LIVE SHOW

A VT DISPLAYING A VISUAL OF A BOOK IS USED SPIRALLING THROUGH PAGES AS A TIMELINE DISPLAYING IMAGES AND HISTORICAL HIGHLIGHTS AS FOLLOWS. **VOICEOVER BY X FACTOR'S PETER DICKSON.** 







- Image 1 12th Century, the first cannon is developed in China.
- Image 2 In 1772, in his attempts to isolate oxygen and carbon dioxide from the air, Daniel Rutherford discovers nitrogen.
- Image 3 1774, Joseph Prestley is credited with the discovery of Oxygen.
- Image 3 1776 Alexandra Volta starts his study of the chemistry of gases, discovering Methane.
- Image 4 1776 Henry Cavendish discovers Hydrogen.
- Image 4 1883 Nitrogen was first liquefied at the Jaqiellonian University, creating Liquid Nitrogen.
- Image 5 1956 Christopher Cockerell invents the Hovercraft.
- Image 6 Present day, we have come to recreate what others have done long before... and the bangs begin.











Presenters burst onto stage introducing themselves as members of moon and the developments in space the Ministry of Science. Their mission travel from the initial engineering today, is to look at the different types of energy and how it's used in the modern world. They'll also look at some of the engineers, inventors and scientists who have helped shape the world we live in today and some other random science experiments simply because they are either cool or blooming dangerous.....

Methane bubbles are created and ignited creating a large flame on stage. This is then linked back to the different types of energy, how Methane was discovered and explained

Key Question: Is Methane flammable?

### SCENE 3: HUMAN ROCKET

Looking at man's first mission to the of the rocket to Virgin Galactic. A lighthearted scene is then created whereby a human cannon is built on stage. A presenter is loaded into it whilst onstage and using "theatrical magic" is then fired across the stage.

Key Question: How fast do you need to travel to get into space and what was it that Issac Newton said?

#### SCENE 4: ELECTRICITY

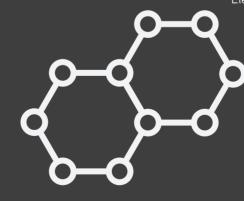
It's time to bring up some volunteers for a hair raising "dance off" followed by a look at the difference between Current and Static Electricity using a Plasma ball, a Van De Graaff machine and one expendable presenter.

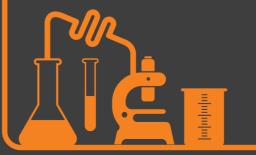
Key Question: What is the difference between Current and Static Electricity?

### SCENE 5: MONDEGREEN

A mondegreen is a mishearing or misinterpretation of a phrase as a result of near-homophony, in a way that gives it a new meaning. Mondegreens are most often created by a person listening to a poem or a song; the listener, being unable to clearly hear a lyric. substitutes words that sound similar. and make some kind of sense. Let's have a look at some of the newest misinterpretations as a group. Why? Because it sounds fun.

Key Question: What is a mondegreen and why does it happen?











#### SCENE 6: LIQUID NITROGEN

A series of demonstrations are done, linking back to energy and explaining how and why they work. These include freezing flowers and smashing them over a presenters head, A balloon filled with "air" being cooled down to – 196 degrees turning from a liquid into a gas, a 2 litre exploding bottle and a very large cloud produced right onstage. Key Question: Can things that are really cold, boil?

### SCENE 7: CANNON WARFARE

The voiceover from above leads us through the pirates and their weapons of science construction. First up. it's the co2 cannon which fires foam balls into the audience. Number 2 - a hydrogen bottle rocket cannon which fires multiple 2 litre plastic bottles into the audience and finally number 3 – a pirates cannon which is built to contain a smoke machine and fires smoke rings across the audience. All cannons are explained and linked back to the inventors/discoverers and the different types of energy. Key question: What is the chemical symbol of Hydrogen?

#### **SCENE 8: INVENTION**

It's time to look at some of the scientists, engineers and inventors who have shaped the modern world we live in. Here we look at Leonardo Da Vinci, Louis Pasteur, James Watts, Sally Ride, Lise Meitner, Thomas Edison, Henry Ford, Benjamin



Franklin, Hildegard of Bingden, Marie Curie, Alexander Graham Bell, Sir Tim Berners-Lee and finally Christopher Cockerell. The history of the hovercraft is looked at highlighting how Christopher Cockerell first tested the hovercraft in 1955 using an empty cat food tin inside a coffee tin, an industrial air blower and a pair of kitchen scales. We'll then look at how he engineered the first hovercraft and then build one on stage.

Only thing is – we need a pilot?

Key Question: Why is the Hovercraft one of the most successful inventions

### SCENE 9: PERIODIC TABLES & ELEMENTS

of the 20th century?

What's the difference between an atom and an element and why is it called the periodic table? And is there a way in which you can remember every element on the periodic table in under two minutes?

Key Question: What is the difference

Key Question: What is the difference between a period and a group on the periodic table?

### SCENE 10: PEDAL POWER & RENEWABLE ENERGY

In a world where everyone is obsessed with a smoothie can you turn it into a science experiment?

Let's see. Looking at the different types of renewable energy and pedal power combined, it's time to see if the audience can exercise their way to a delicious smoothie.



# SCENE 11: EXPLOSIVE BALLOONS & THE FIRE TRIANGLE

Explaining the fire triangle the balloons are ignited containing different mixtures of hydrogen and oxygen for a really loud bang.

Key question: What are the three elements of the fire triangle?

Key Question: How much energy is required to power the electrical items we use every day?



### MISSION STATEMENT:

All above scenes deliver good, correct science and educate the audience with not only how they work but how they were discovered or invented. A science consultant has checked the script thoroughly to ensure all content is correct.

There has been real investment to date in props and knowledge and all personnel involved with the show has a long history.



### SHOW DETAILS

#### PRODUCERS

Mark Thompson Productions Limited is a theatre Production and events company specialising in Edu-entertainment and run by people who Care about delivering a first class experience to The audience before any commercial decisions.

Launched in 2013 by Mark Thompson to deliver a One stop destination for both the Theatre and Events markets, MTP Limited combines a wealth of experience in both creative and technical delivery of Live entertainment.



### Touring tean

- 2 x Presenters
- 1 x CSM
- 1 x Lighting Designer.
- 1 x DSM



#### AUDIENCE PARTICIPATION

The live show will encourage audience participation with selected young audience to come on stage and help participate with demonstrations.

### TARGET AUDIENCE

Appeal to the widest possible audience, however the scientific and technological explanations will focus on a key audience of 6-13 years old and their families.

### TYPICAL ATTENDANCE

The show will be scripted to appeal to both a popular family audience as well as being able to play to dedicated schools performances.

Designed to play to a seated family or schools audience of up to 1,500. Audience numbers can increase with cameras for large scale events.

#### PERFORMANCE SCHEDULE

The production is capable of playing up to two performances per day with a minimum of 45 minutes turn around between the end of one performance and the start of another. The 1 hour version can play upto 4 performances per day with no interval.

### INSTALLATION TIMES

Pre-production period minimum 6 hours on stage to include a tech and dress rehearsal. 3 hours recommended get in and prep time. A maximum of 2 hours dependant on venue access.







# WHAT OUR CLIENTS AND AUDIENCE SAY

We first worked with Mark Thompson Productions as part of the CultureTECH Festival in 2014 and we're delighted to have worked with them several times since - in fact we've just signed up for another year's run of the Ministry of Science Live! show for this year. Mark and the team are incredibly easy to work with and produce a brilliant show. 6,000 kids saw the show at CultureTECH last year and the feedback from students and teachers has been universally positive. We can't wait for this September.

Mark Nagurski – Festival Director, CultureTech The whole class had a great time this afternoon at the Ministry of Science. A fantastic way of engaging children in STEM"

Mrs McArthur - Teacher

50:50 oxygen hydrogen. Shaking the Alban Arena. Thank you Ministry of Science for enthusing the next generation Tim Roberts

What an awesome show, kids will love science after watching this.

Ms Wilson – Teacher

Wa Mi Au im

"My gorgeous nephew.. Who now wants to be a scientist.. Thanks Ministry of Science" Audience member referring to an image of her 7 year old nephew

Ultra cool Science Experiments. Wow! Sebasian Funk Science Communicator

Best School outing ever
@MinistryScience
#happykidslearningisfun
Joanne Wilson May 19



Fantastic inspiring show! My son loves Hannah Claudia

Oscar just nearly had a heart attack after a random explosion.. Hannah Randell

Electrostatic repulsion at @ ministryscience yesterday. Kids still buzzing about the show! Stephen Hill

The feedback is well deserved! My little boy was mesmerised from start to finish :-) Lisa Hilton

I was thinking maybe you guys could come to my school because you teach science better then the teachers and it is more fun Bethan Tomlinson

Wow! Kids came home tonight talking about Ministry of Science at Jersey Opera House sounds like a fabulous transference of passion for science Rob Greig

@MinistryScience amazing show this afternoon. Had forgotten how much I love science (and fire and explosions...) nephew now quoting show" Tabby Ayres

"Enthralled by chemiluminescence...!" Tracey Wright

> What a great way to spend an afternoon. I forgot I was a teacher. I learnt something too. Jennifer Bridge June 10

"Fire in boys belly tonight for science... Joanne Betts - Audience member

Kids loving science stuff by @ MinistryScience at the Wycombe Swan. Great section on clean power helping kids get excited by renewable energy.

Having the best time. Highly educational for all Carol Lambert

"I feel like I should be involved in this... what a fantastic way to engage kids in the changes in space travel. Really great show guys which covers so much in such an engaging way. Mars One Project Astronaut Candidate

At the Ministry of Science live show in Darlington today. If you have a little boffin of your own this show is a must see #brilliant Ben Scott June 6

Your enthusiasm for science is fantastic, my 2 boys couldn't stop talking about it all the way home - both passed out now! Alan Smith - Audience member







### REVIEWS

We all know that the best parts of Physics and Chemistry To end the first half, a series of demonstrations are at school were the really exciting lessons where things were blown up. Well now, the Ministry of Science brings chances to have a lot of fun, make masses of theatrical all that excitement, and a whole lot more, to a brand new generation of young would-be scientists (and their families), in their fantastic new live show.

Even before Mike and Emma, the two presenters, have burst onto the scene, explosions and fireworks are going off all over the stage, and I don't mean cute little explosions, I mean bangs that literally shake the theatre! The show looks at different types of energy and how they are used in the modern world and where better to by igniting Methane bubbles. The heat and light came from the stage and the sound from hundreds of children who clap and cheer wildly, while wishing that they too could be up on stage having fun.

Some of those children get the chance to do just that as, after we see a very convincing demonstration of a human cannonball, the first young volunteers head up on stage to have a hair raising experience followed by an experiment using a Plasma ball to create Star Wars style light sabres - to a chorus of young boys all saying to their parents, "Can we do that at home?"

Under the disguise of a demonstration of sound energy we are next introduced to the word mondegreen. For those, like myself, who have never heard the word before, a mondegreen is a mishearing of a phrase (usually a song lyric), when the listener substitutes words that sound similar and we hear some hilarious examples, including Sister Sledge singing "Just Let Me Staple The Vicar" and the simply terrific, "Oh Four Tuna" from Carl Orff's Carmina Burana.

done using Liquid Nitrogen, giving the presenters more smoke and, just in case we haven't had enough, create another huge explosion.

The voiceover, X-Factor's Peter Dickson, leads us into the second half by introducing some pirates and their weapons of war. The CO2 cannon fires foam balls into the audience, the hydrogen bottle rocket cannon fires empty two litre plastic bottles and finally a cannon which contains a smoke machine blows smoke rings over the heads of the, extremely excited, audience. start than with the heat, sound and light that is produced Before the explosive finale the presenters run through yet more experiments where they create a homemade hovercraft using household items, run through the entire periodic table in under two minutes (and on helium) and introduce us to the concept of renewable energy by creating a smoothie using pedal power.

> The final scene where balloons, containing different mixtures of hydrogen and oxygen, are ignited to create a few more massive explosions is the undoubted highlight and, although they are all jumping out of their seats, the audience are screaming and shouting for more although the ringing in my ears is just as loud!

FOUR STARS \*\*\*\* Sussex paper relating to performance at Eastbourne Congress in May 2015.















The Ministry of Science Live exploded onto the Scunthorpe stage causing a positive reaction from

It took place at the Baths Hall on May 21 with two performances – a lunch show for schools and an evening show for the public. This was clearly a show aimed at kids but there was plenty for the adults to enjoy too. And the youngsters we took loved every minute of it.

Our 'scientists' for the night were Emma and Mike who led us through an entertaining and energetic journey of the mysteries of how things work. The great thing about this show was it was not just entertaining, but also educational and informative. Even I learned a few new things!

The best moments came with the bangs – and there was plenty of them. Cannons being fired across the audience and kids getting up on stage rubbing balloons on their hair to create static were just a few of the fascinating practical demonstrations on the

The team behind this show have really thought about creative ways to show the science behind how things

Kids in the audience were on the edge of their seat the whole time and, I must say, even I was.

Review relating to a performance in Scunthorpe in 2015.





The show begins with the voice of the X-Factor, Peter Dickson booming out with an introduction to a number of great inventors and scientists. Then the bubbly duo of Mike and Emma enter the stage from the Ministry of Science. Unusually for a stage production you are encouraged to take photos of the show and to tweet them to the Ministry giving you the chance to get goodies in the post.

Mike and Emma then take us through a fun and educational journey through the scientific world. Mike providing some cheesy jokes that the kids appreciate along with the big kids in the audience!

In the performance we saw the first group of kids on stage really got Emma giggling so much so she struggled to regain her composure and Mike had to bail her out (this added to the hilarity especially for the

The shows are packed with facts that grown-ups will both know and will educate them. The kids learn whist having fun so don't even realise they are learning. If your child hates bangs then be prepared to cover their ears especially early on when a couple of loud bangs are heard. After the two early bangs Mike and Emma do

The effects from the Liquid Nitrogen will amaze young and old alike. In the second half all of the kids have the chance to join in when glow sticks are explained (glow sticks are on sale before the show and at the interval). The second half also sees an adult invited on stage to make a smoothie so if you are a shy parent strap your child down. A huge canon will really get the kids going as they try to catch foam balls and plastic bottles. With a finale giving the biggest bangs of the show, making you jump out of you seat, this is most definitely a show for the kids, but adults will enjoy it also. The show lasts around 90 minutes!!!

Review relating to a performance at the Lowry in Manchester in June 2015

More reviews found of website www.ministryofscience.org





### **MARKETING ASSETS**

### **WEBSITE LINKS**

WWW.MINISTRYOFSCIENCE.ORG WWW.THESCIENCECLASSROOM.CO.UK WWW.MT-PRODUCTIONS.CO.UK

Schools packs for teachers including lesson plans and links to curriculum provided.

Artwork for leaflets, posters, four sheets, pop up banners etc provided upon contract completion.

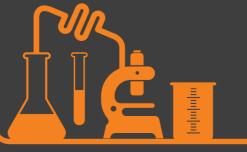
### Twitter

2,450 followers and growing daily www.twitter.com/ministryscience

### Facebook

Full of audience pictures of the show www.facebook.com/ministryscience













### **CONTACT US**

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