

Session Title:	It's Not All About The Bangs! Theatre Practice for STEM Engagement
Speaker(s):	Dr Martin Khechara and Heather Angell
Chair:	Andrew Cooper
Reporter:	George Green

Speaker/Institution Bio/Information:	<p>University of Wolverhampton (STEM Response Team)</p> <ul style="list-style-type: none"> • 2018-2021 STEM engagement to 40,000 people • Demonstrates science through theatre - different show experiments such as: • Explosive theatre shows • The Snot Shot • 2 million people interacted with online activity through the STEM response team • Funded by the Royal Society of Chemistry
Overview/Aim of session:	How to deliver outreach practically and build science capital within the public (students from WP backgrounds) through theatre and performance
Workshop Content	<p>Informal science education</p> <p>KEF (Knowledge Exchange Framework) score which is becoming more of a priority in the HE sector and includes knowledge exchange through – research partnerships, working with business, working with public and third, skills, enterprise, local growth and regeneration, IP and commercialization and <u>public engagement</u></p>
Case Studies/Examples:	<p>Science Theatre as an intervention can do very interesting things</p> <ul style="list-style-type: none"> - They have a pyrotechnics license - Performances - 7% spoken words, 38% voice and tone, 55% body language – elements of personal communication. You are part of the intervention (Experience is more impactful than spoken message) - Planning considerations: Deliverable content, expected audience, expertise and knowledge, costing and funding - Including national curriculum content – key stage,

	<p>interactive activities and aims and objectives</p> <ul style="list-style-type: none"> - Creating interactive theatre sessions – align with defined aims and objectives and consider health and safety - Narrative is vital to keep engagement: exposition, rising action, climax, falling action, resolution (beginning, middle and end) - Health and safety – risk assessment, method statement, COSHH, PAT testing, specialist training) - Example 1: Combustion – heat, fuel and oxygen) – if one was missing we wouldn't get fire and we saw the demonstrators create fire - Example 2: Revolution – a human emotion – students react in disgust but understand the bacteria on poo - Example 3: Gas law – how temperature affects the volume and pressure of gas through liquid nitrogen, using balloons and big bangs!
Scenarios/Roundtable discussions:	Important considerations: understanding the school first and select sessions based on age and culture in school
Questions and Answers:	
Summary, Key takeaways:	Great ideas for STEM for Schools programmes; supports with story-telling initiatives for masterclasses like this. If you are looking for STEM masterclass development, this is the programme to gain inspiration from.