

# Newsletter Special



## Youngest Person In The World To Create Fusion



Jamie Edwards, Year 9, C7 is the youngest person in the world to build a nuclear fusion reactor.

Priory pupil Jamie, 13, has built the reactor from scratch with help from school, and has now taken the world record off American, Taylor Wilson, who was 14 when he became the youngest 'fusioneer' in 2008.

Jamie began building the reactor in October in an under-used science laboratory (Lab 4) at school and finally completed the task on Wednesday (March 5), making two atoms of hydrogen smash together to make helium – a nuclear fusion.

"It is quite an achievement," said Jamie, who was in a race against time to make the reactor before he turned 14 on March 9.

"It's magnificent really. I can't quite believe it – even though all my friends think I am mad!"

Jamie has always had a taste for science and used to try and do his older brother Danny's science homework.

"When I was in primary school, I was always reading Danny's science homework – he was at Priory at the time - and I just really enjoyed it," said Jamie.

"One day, I was looking on the internet for radiation or other aspects of nuclear energy and I came across Taylor Wilson and his reactor. I looked at it, thought 'that looks cool' and decided to have a go. Basically I made a star in a jar. It's amazing really, quite a feat, to be from Penwortham and be the youngest person in the world to do this."

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Jamie, along with friend George Barker who has helped him with the administrative side, set about trying to create the nuclear fusion reactor by contacting like-minded physicists at [www.fusor.net](http://www.fusor.net).

“A lot of older people have tried it and they were discussing it on the internet and I asked for their help,” said Jamie. “However, I knew I needed funding. I went to various nuclear laboratories and universities and they didn’t seem to take me seriously as it was hard to believe a 13-year-old would do something like that so I went to Headteacher, Mr Hourigan, in October. I had to give a presentation and talk to him about safety, the benefits and what could go right or wrong. I needed £2,000 and he said he would fund it and also put £1,000 into a contingency fund so that myself and others could continue my work as I would like to make it energy efficient.”

“I was a bit stunned and I have to say a little nervous when Jamie suggested this but he reassured me he wouldn’t blow the school up!” said Headteacher, Mr Hourigan. “At Priory it’s all about developing individual talents and Jamie is obviously extremely talented and I was more than happy to invest in him. I must admit I knew nothing about nuclear fusion so I had to investigate and read up on it, talk to people and be convinced it was all safe. Jamie is a confident young man, he did a lot of the ringing around for his experiment, carried out all the research and he thoroughly investigated what it takes and how to do it safely. It’s phenomenal for Jamie and for the school.”

Jamie, who is also a musician, cyclist and actor, began sending for the equipment he needed which involved getting parts from Lithuania, America and England. “I began ordering the parts and I got the vacuum pumps and the high voltage system and began putting it together,” continued Jamie, “It has taken nearly every break, dinner time and after school as well but it has been worth it.”

The big turn on was on Wednesday (5th March) – and it all went to plan. “There wasn’t a lot to see just basically a purple light which is the plasma and then the neutron detector began ticking and a piece of silver paper changed,” said Science Leader, Ms Honeyman, who has been Jamie’s project manager and mentor for the project. “It was so exciting when it happened. It’s been superb to watch Jamie grow each day and see how he has developed as a person by doing the experiment. No matter what happens in the future, it’s a huge achievement.”

The school has been backed all the way by various authorities to make sure all the safety aspects of the experiment have been adhered to. R&B Switchgear tested the electronics due to the high voltage which was needed in the control panel and Manchester University have been involved in checking the machinery.

Several of the staff, along with Jamie and George, went to Westinghouse Springfields Fuels Ltd for a risk assessment and safety course. “It’s all perfectly safe,” said Ms Honeyman. “We wouldn’t do it if it wasn’t and there is every measure in place to ensure this. This is about helping a student fulfill their dreams and the school supporting them. It’s about helping them develop as an individual – in this case enhancing Jamie’s passion for science.”

Managing Director Mark Beswick at R&B Switchgear Group, said: “It’s fantastic to see the next generation of talent pushing the boundaries and setting new standards for the engineering industry. It’s important that students get the support and the opportunities to explore science and be inspired to take up a career in engineering. This needs to be the responsibility of businesses as well as schools, and is something we’ll continue to support as a company. We’re immensely proud to have been able to support Jamie – it’s been a great project for the team and we’re looking forward to seeing what challenges he sets us in the future.”

To see Jamie’s blog go to <http://jamiesfusionproject.blogspot.co.uk/>

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