Engaging with the wider community through space education - The Holy Cross School

Leading space education programme

Key actions

MirandaNet on-line teaching community houses all of our Holy Cross projects including the highly regarded 'Science Through Arts' (STAR) project. This project was developed with the support and involvement of NASA scientists over an eight year period. This provided a platform to further develop links with other schools around the world. Becoming a 'Leading Space school' allowed the school to improve and develop its cross curricular resources and expertise, particularly those linked to Space Education.

See links:

List of projects at The Holy Cross School

STAR Project, a picture sequence

Academic paper given at the 2005 "World Conference on Computers in Education" published by our link school in Taiwan

In 2009 year 8 students (approx 150) carried out a cross curricular project over the summer term linked to Space Education. This project was so successful that the school is running, at the end of July, the project again but this time collapsing the timetable for 2 days.

The greater interest shown by students in Space Science is evident across the school with the number of students achieving an A*-C grade in physics increasing from 41 in 2008 to 61 in 2009. There was also an improvement in the number of students achieving an A grade from 19 students in 2008 to 22 in 2009. In addition, there was an increase in the number of students of students achieving a B grade from 13 in 2008 to 18 in 2009.

In 2009 all students passed GCSE Astronomy with 83% gaining an A* to A grade. A year 6 student from a local primary school achieved an A* grade. In year 12 four students completed an extended project which was directly linked to Space Science.

The STEM club has maintained its number at 25 KS3 students. STEM students completed a project on Space exploration linked to a presentation on Space and Satellites given by Stuart Eves from Surrey Satellites. Their evaluations were very positive and led to the use of the 'Mars Mission Box' from the Science Museum.

In the partner primary schools visiting science staff have developed the space theme when teaching seasons of the year. In 2009 and 2010 a Primary Science G&T day was organised which focussed on space exploration and rocket science. Seven local primary schools participated. Students commented in their evaluations' that they found the day 'great fun' and that they 'learnt a lot'.

In 2009 and 2010 a PGCE INSET day was run for 28 trainee science teachers studying at St Mary's College. The day covered extra -curricular activities in science and covered the involvement of STEM clubs and cross curricular activities in promoting the awareness of Space Science. Students found the day very beneficial and supplied them with ideas for their new post.

Impact on lead and partners schools

Teachers are now becoming more confident at working in a cross curricular way and this has allowed the Space theme to integrate a range of subjects.

Local primary schools and a Teacher Training College have benefitted from a greater awareness of Space Science through a more hands on approach to teaching in this area of science. The partner secondary schools have also benefitted from the use of the school's solar telescope.

Impact on specialism

The school now has a link with Surrey Satellite Technology which it previously did not have. It also has a stronger link with the local Teacher Training College and a range of partner primary schools. In addition through the development of GCSE Astronomy the school now has a link with three secondary schools.

Top tips

Start with small pilot event, publish the results to colleagues. Then more of them will be inspired to take part in future developments. See paper on MirandaNet.

The future

The school has cross curricular resources and expertise which is being shared with other teachers through the school's website.

The science projects on the website are updated as new work and ideas come through.

Contact at school

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Images from the programme