

## Using space engineering to motivate and enthuse - Sackville School

### Leading space education programme

#### Key actions

Bridging units, where students study related topics at the end of year 6 and beginning of year 7, have become increasingly popular. In our previous bridging units, the year 6 teacher has delivered a series of 4-6 lessons on a theme of either bread making or fizzy drinks. This has involved researching the theme and an investigation. The work has been passed to year 7 teachers, who have then extended the task by asking students to conduct another investigation. Often, a fictional company has sent letters or posed questions to stimulate discussion and ideas. In 2009, teachers requested a new bridging unit to be developed.

**Living in Space:** This bridging unit asks students to plan 2 investigations, one in year 6 and the other in year 7. These look at rocket propulsion and power supply. It draws heavily on the resources from the International Space Station (ISS) Primary School support pack, but is backed up with bespoke resources and a set of electronic resources e.g. video clips, worksheets, weblinks etc suitable for use in both primary and secondary schools. Links were also included to maths and geography. Students in year 6 completed research on the ISS, and then investigated the factors affecting the flight of a paper "blow" rocket in response to a letter from ESA. Their results were sent to their year 7 teachers, when another letter from ESA prompted them to investigate how the ISS could be powered, namely by using solar cells.

#### Impact on lead and partners schools

- Increased staff confidence and awareness of space related learning and careers.
- More engagement with space education by all students in local feeder primary schools.
- A great way to get to know students and for students to get to know each other in year 7, whilst having fun in year 6!

#### Impact on specialism

- Specialism re-enforced before arrival at school.
- Importance of STEM raised in feeder primaries
- CPD for primary school teachers on space related STEM

#### Top tips

- Try to get as many primary schools on board as possible.
- Include any other local secondary schools too, so all students can be involved regardless of their choice.
- Provide electronic resources and paper copies - some people prefer both!
- Keep it simple - no-one wants to read page after page of lesson plans. The most important thing is that people actually *do it!*

## The future

- Suite of electronic resources developed and disseminated at County and National Levels
- CPD of staff in around 15 schools
- To develop further resources when we get bored of this unit!

## Contact at school

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## Images from the programme

