

## **Carterton Community College**

Carterton Community College in Oxfordshire is an 11- 16 comprehensive with 711 on roll. It has a specialism in engineering and the learners involved were all year 7.

Objectives of partnership with employer were:

- to provide the building blocks for year 7 learning in physics
- to introduce learners to the concept of the school being part of their community
- to challenge and engage new learners so that they enjoy and achieve in science and the whole curriculum.

As part of the 7 week introductory unit to Science, all year 7 students work with JADTEU (Joint Air Delivery Test and Evaluation Unit), to produce a cradle and parachute that will protect the descent and landing of an egg.

Students are taught about RAF Brize Norton in order to provide the local community and real life context for their work. They were also taught the relevant scientific formulae to understand what was needed: types of forces; weight; mass and how they behave, and then provided with opportunities to test, measure, analyse and evaluate these. Some of this learning was delivered by specialist personnel from JADTEU.

Using all the information learnt, students built their own cradle and parachute and test their effectiveness in keeping the egg unbroken when dropped from the gantry of the JADTEU hangar.

The employer involved was the Joint Air Delivery Test and Evaluation Unit, RAF Brize Norton, Carterton. This is a highly specialised unit responsible for the delivery of equipment and personnel in support of the UK's military operations.

The benefits to the employer were as follows:

- An excellent PR opportunity
- Some employees were parents of some of the learners providing increased commitment and interest by Brize Norton staff
- Providing specific support in a subject that is key to the armed forces, adding value to students' learning and appreciation of the subject.

The benefits to student learning:

- Students were given the opportunity to see science and engineering in action, in a real life context. Enthusiasm for the importance of STEM subjects was enhanced.
- Students' end of module assessment figures were improved in all but the highest target levels with many able to use scientific terms confidently and see them in context, e.g. up thrust, gravity, absorption.
- Students understood their own community in greater depth including what it was like to work at the airbase and be inside the aircraft.

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