GO EXPLORE... FORCES

WHY USE TREE TOP JUNIORS TO DEVELOP PUPILS' KNOWLEDGE AND UNDERSTANDING OF FORCES?

How better to appreciate air resistance than to feel this force as you fly down a zip wire? Imagine how being suspended 5 metres above the ground will focus your pupils' minds on gravity. The Tree Top Junior experience is ideally suited as a stimulus to inspire scientific minds on the topic of forces.

GO BITESIZE

- Identify five different pushes and pulls whilst taking part in the Tree Top adventure. Draw force arrows on pictures taken on site. Predict when forces are balanced or unbalanced whilst taking part.
- How does changing your body shape affect your speed down the zip wire? (use Go Ape speed guns where available). Make card shapes that can be threaded down a string to investigate the effects of air resistance.
- How would Tree Top Junior activities be different on the moon? Discuss the difference between mass and weight. Think of Positives, Negatives and Interesting (PMI) of a lunar version of this activity.
- Where is friction good or bad whilst taking part? Complete a table to list the positives and negative effects of friction.
- The safety wire is safe up to loads of 6KN. Discover which objects could and could not be supported.

GO PROJECT

Challenge your pupils to design a strength test for a material to be used as a crash mat within Tree Top Juniors. For example, use an everyday material (tights) and see how it changes length when weight is applied (stones). Plan and carry out a fair test enquiry, make a prediction, collect data and draw conclusions, linked to the following questions?

Possible questions:

- How does changing the mass affect the extension of the tights?
- Which brand of tight would make the best material for a crash mat?
- What are the safety limits for this material?
- How does changing the height of drop affect the deformation of the material?

YOU ACED IT!