

## Key Stage 3 Homework Assignment Information



Student Name:	Target level	Year Group: <b>7</b>
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Subject	Date Set	Deadline	Teacher
Science	7 <sup>th</sup> June	21 <sup>st</sup> July	All

# Alien Homework

## Mission Far Side: Back to Earth

Mission Far Side must return safely to Earth. But the closer the landing module is to Earth, the greater the force of attraction due to gravity. So we must slow down its descent. But how?

### Task 1

Design a landing craft that will slow down the landing module before it lands on Earth.

Follow these steps:

- Sketch your prototype on plain paper. Remember the science of air resistance.
- Make a scale model of the landing craft. Use scrap card, glue, old bags and things.
- Now draw a specification diagram of your design. Use one colour only.
- In a lab session, you will test your model. You might compete with other designers to find the safest device. Safe devices must **take an egg dropped from an upstairs window safely to the ground without letting it crack.**
- After testing, use another colour to update your specification diagram to show how you could improve it.

**Task 2** Research the answer to at least one of questions from the presentations.

**APP level 3: Select equipment to address a question. Suggest improvements to their working methods.**

**APP level 4: Select appropriate equipment to address a question. Suggest improvements to their work giving reasons.**

**APP level 5: Explain why particular pieces of information are appropriate for the question. Evaluate the effectiveness of their working methods, making practical suggestions for improving them.**

**What you have to do to succeed:**

Complete as many of the tasks as you can - aim for the highest level possible, do not limit yourself. Use what you have learnt in class to get started and use additional resources such as the internet, books and SAM learning if you need more information. Write everything in your own words and consider using diagrams to help explain your ideas. Always lay your work out neatly and check your spelling. Your homework will become part of your unit booklet.

**Resources and Websites:**

- Encyclopaedias.

**Department guidance for parents:**

You can help the student doing the homework by:

- Encouraging them to think through their ideas before they start.
- Supervise some preliminary testing at home if possible.
- This task will include a lab session to test the models, followed by a second period of work at home to describe their improvements.

**General guidance for parents**

You can help by:

- Ensuring at least 2 hours are spent researching, developing, drafting, reviewing and producing homework to the best standard possible.
- Making sure work is handed in by the deadline.
- Noting at the end of the homework any problems experienced by the student.
- Checking there is no plagiarism, ie. downloading/copying from the internet or books.

*Students should read the material, make bullet points, write rough notes in their own words, draft and then develop these notes in their own words into their final piece. Plagiarism leads to coursework being disqualified at GCSE/A level. Plagiarised work will not be accepted by teachers.*

**Please do not:**

- do any part of the work for your child
- give extensive guidance; the student must be able to understand the task for themselves and teachers understand what students can/cannot do.