

## Key Stage 3 Homework Assignment Information



Student Name:	Target level	Year Group: <b>8</b>
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Subject	Date Set	Deadline	Teacher
Science	7 <sup>th</sup> June	21 <sup>st</sup> July	All

### Live and Kicking Unit Homework

#### Level 3-6: Are people with bigger feet faster swimmers?



Olympic swimmer Michael Phelps has size 14 feet. Are people with bigger feet faster swimmers?

Plan some tests to answer this question.

Some of the variables are:

- the length of the swimmer's feet
- the width of the swimmer's feet
- the distance the person swims
- the time it takes swim the distance.

Words to use in your plan:

input outcome control variable fair test measure.

### Marking guide

**APP L3** Identify one or more control variables from those provided.

**APP L4** Decide when it is appropriate to carry out fair tests.

**APP L5** Recognise significant variables, and select the most suitable to investigate.

**APP L6** Identifying significant variables and recognise which are independent and which are dependent.



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## Live and Kicking Unit Homework

### Level 5-7 Swimming speed investigation

Olympic gold medallist Michael Phelps has extra long arms and huge feet. He is also very tall. Which of these features has most effect on swimming speed?



**Plan an investigation to answer the question.**

**You have the following equipment:**

- a large number of swimmers to choose from;
- a 20m swimming pool
- a stopwatch.

**Words to use:**

input outcome control variable fair test measure  
values range interval reliable error

### Marking guide

**APP L5** Recognise significant variables, and select the most suitable to investigate.

**APP L6** Identifying significant variables and recognise which are independent and which are dependent.

**APP L7** Identify key variables in complex contexts, explain why some cannot readily be controlled and plan approaches to investigations to take account of this

**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.
- Helping them to identify how Science applies to their everyday lives.
- Check through the tasks to ensure they have done as asked and encourage them to attempt as many of the tasks as they can.

**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.