

Lesson plan: Science

Science

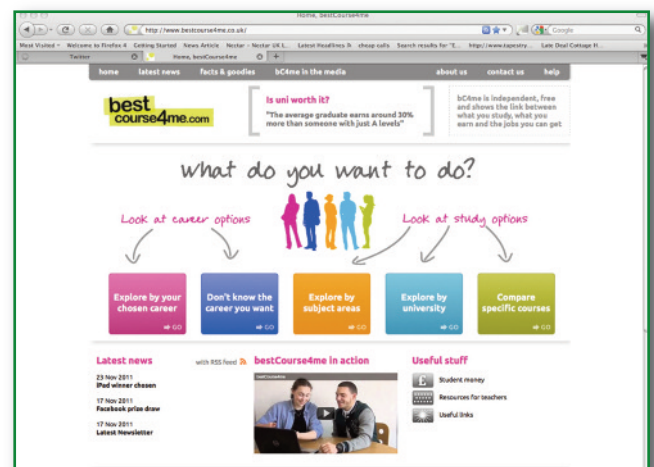
Graduates who studied a science related degree at University go into an extremely wide range of occupations. However, for a number of degrees a particular science A-level or set of science A-levels is an entry requirement for the course.

This exercise will allow A-level and secondary school students to investigate which science related degrees require certain A-levels. This particular focus will assist secondary students who are deciding which A-levels to take, and also help A-Level students gain an understanding of what they could go on to do with the A-levels they are currently taking.

To start with click on the blue 'Don't know what career you want tab' in the middle of the home page to be taken to the A-level selection section.

To select an A-level and begin the search either:

- Scroll down the list of alphabetically ordered A-levels and click on the one you want;
- or,
- type the A-level you wish to select into the search box that says 'type text to search for' and then click the green 'find' arrow to the right of the box.

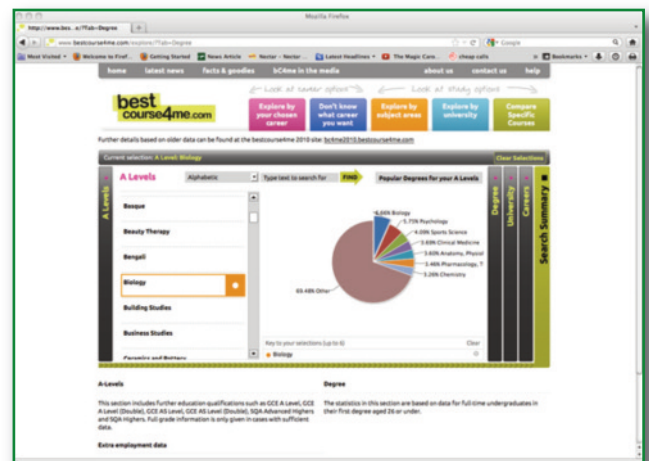


1. A-Level

As an example, select **Biology** from the list of A-levels.

Once a selection is made your choice will appear in a key at the bottom right hand side of the list of subjects, underneath the pie chart. If you want to get rid of a choice simply click on the grey arrow to the right of your selection in the key, or deselect the option in the list of A-levels.

As soon as you select one or more A-levels from the list, a pie chart will appear on the right hand side. This pie chart depicts popular degree courses taken by people with the A-levels that have been selected. You can select up to 6 but for this instance keep only **Biology** selected.



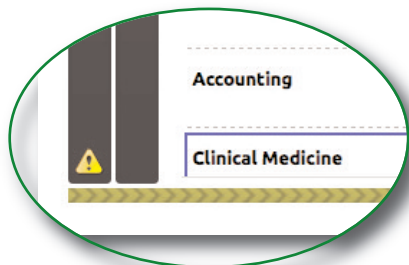
2. Degree

With **Biology** selected from the list of A-levels, click on the vertical tab parallel to the A-level tab titled **Degree**.

A list of degrees will appear ordered by the percentage of people who studied **Biology** at A-level.

From the degrees listed select '**Clinical Medicine**'.

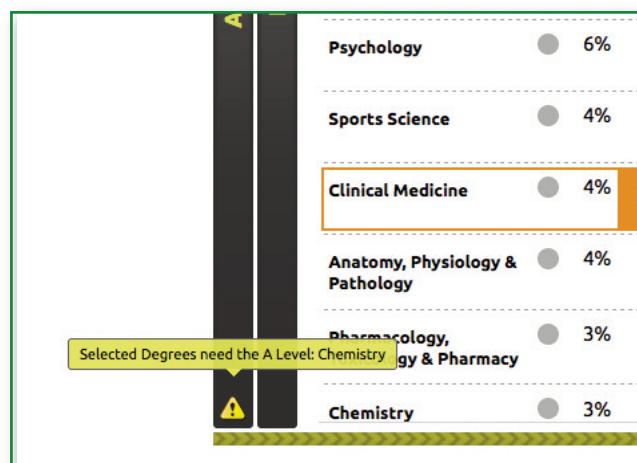
As soon as you select Clinical Medicine from the list of degrees a yellow warning arrow will appear at the bottom of the vertical A-level tab. This arrow indicates that the selected degree requires a particular A-level or combination of A-Levels.



Hovering the mouse over the yellow warning arrow will give a list of the A-levels needed for that selected degree.

Warning! As A-Level biology has already been selected for this search it will not appear when the mouse is hovered over the triangle.

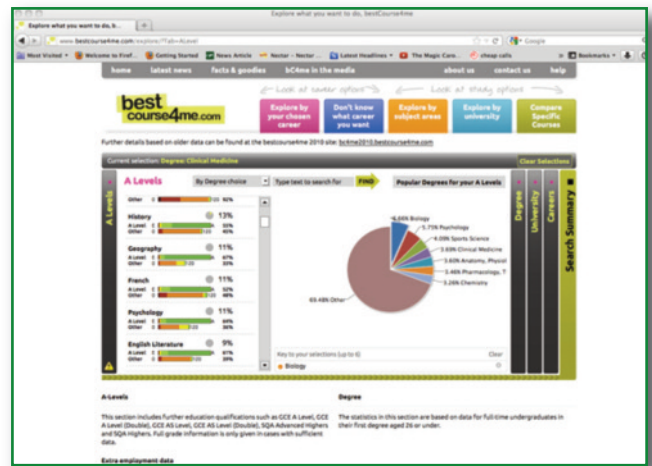
Note: To check whether any of the selected A-Levels are a requirement for the degree course selected, first deselect them from the list. For example deselecting biology from the list of A-levels will cause the yellow warning arrow to jump; this indicates that Biology as well as Chemistry A-Level is required for a clinical medicine degree.



A-Level thermometer

To introduce students to the **A-Level thermometer** feature keep **Clinical Medicine** selected and click back onto the vertical **A-Level** tab.

The list that appears after this will identify all the A-levels taken by people who studied **Clinical Medicine** at University. The subjects are ordered with the most common A-level at the top, you will see that Chemistry is the most common A-level taken by individuals who studied **Clinical Medicine** at University.

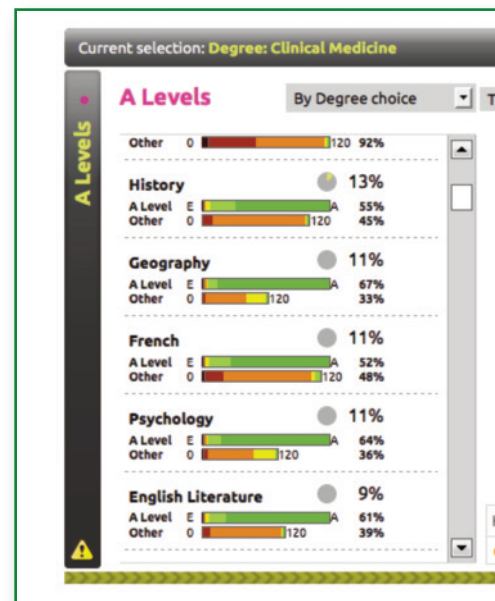


The **A-Level thermometer** for this particular selection will show two things;

- The percentages relating to the A-Levels and other qualifications such AS Level, BTEC or Highers taken by **Clinical Medicine** students; and,
- the grades that were achieved (in percentages).

Hover the mouse over each of the bars to reveal the colour key and see the exact percentages.

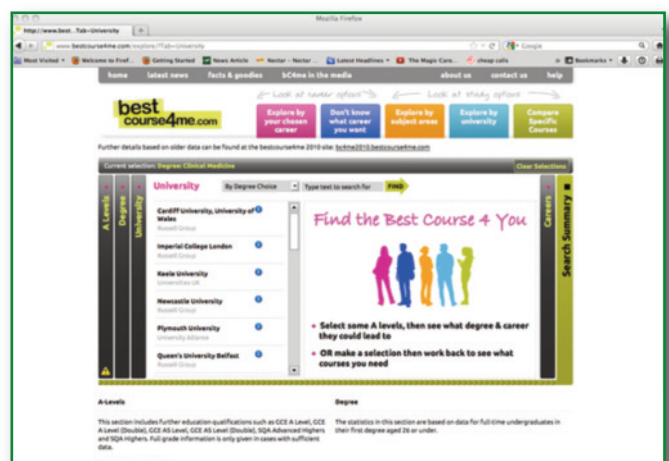
Q. Ask students to identify what percentage of **Clinical Medicine** students have an A-Level or other qualification in Chemistry grade B and above.
A. 96%



This process is also highly useful to gain an understanding of the A-levels subjects and grades achieved by students taking a particular course at a certain University. You will notice that the A-levels taken and grades achieved will vary from one University to the next, even though the degree selection is the same. Choose one University at a time and see how the A-level results alter.

3. University

Clicking on the next vertical tab titled **University** will give a list of all the Universities offering the courses that have been selected.



- Students could be reminded to include a mix of local universities as well as institutions further a field so a comparison can be made between the different types of institutions.
- Along with taking locality into account students could also be encouraged to choose a range that includes perhaps a mix of different types of institutions for example a mix of Russell group, million +, 1994 group and University Alliance institutions (see the Glossary on the 'Help' section of our website for definitions.)

Once a University has been selected from the list a line graph will appear on the right hand side. This graph reveals the average graduate starting salaries from the Universities selected. Ask students to select **Oxford, Plymouth and Sussex**.

Example: The graph will show that the average starting salary for graduates from each University.

Q. Ask students to identify the average starting salary for Oxford University graduates compared to graduates from Plymouth University.

A. Oxford University graduates receive an average of £509 per week compared to graduates from Plymouth University who earn an average of £374 per week.



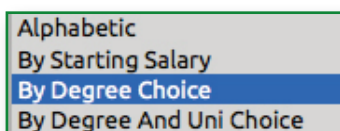
*Note: To look at data that takes University and course into account for average graduate starting salary go to the **Search Summary** section. This is useful if for example students wanted to know the average starting salary of Oxford Clinical Medicine graduates.*

Once you have clicked on the **Search Summary** tab scroll down until you find the graph titled 'starting salaries for graduates of clinical medicine' and hover the mouse over the bar labelled 'Oxford'. You will see that the average starting salary for Oxford Clinical Medicine graduates is £509 per week.



4. Career

To gain an idea of career options that follow from particular degrees click on the **Career** tab. A list of occupations will appear in alphabetical order, clicking on the drop down menu above the list choose sort 'by degree choice'. Sorting occupations by the degree choices selected will put them in order, with the most popular career paths that follow on from the selected degrees at the top of the list.



Example: with 'Clinical Medicine' selected the data shows that 90% of graduates with a degree in **Clinical Medicine** go on to be health care professionals.

Up to 6 occupations can be selected so that a comparison can be made.

The final tab **Search Summary** gives an overview of all the selections that have been made displaying such data as average-starting salaries for selected occupations as well as lifetime earnings, taking both **University choice** and **degree course** into consideration.

Activity for students with PC access

Ask students to clear all the selections they have made by clicking on the **Clear Selections** tab and ask them to investigate other science related degrees such as the ones from the list below. Instruct them to investigate whether any of the examples, or other ones that they have chosen, require specific A-level subjects.

Nursing
Physics
Clinical Dentistry



Things for students to think about in this exercise...

- Do any of the degree courses I have in mind require any particular set of science A-Levels?
- What are the popular degree courses that people who studied a Science/ Sciences at A-level go on to do?
- What is the average starting salary and average lifetime pay for graduates with a science related degree? You could also encourage students to pick a non science degree option against which to compare the data they have for science.