



## Lesson One

### **Careers in science and careers that support scientific research**

#### *Outcomes*

Students will have knowledge of the types of careers that the study of science subjects can lead to. Students will know how to use resources for researching careers.

#### *Aim of this lesson*

Students are made aware of the impact of science on their lives, becoming exposed to a number of careers that relate to and support scientific research.

#### *Materials required:*

- *Careers in Science* booklet (class sets are available by emailing enquiries@ansto.gov.au or calling 02 9717 3168. It is also online at [www.careersinscience.gov.au](http://www.careersinscience.gov.au))
- The *Job Guide* developed for the Department of Education Science and Training by the *Good Guides* and provided to all Australian schools (eight copies minimum), or access to [www.jobguide.thegoodguides.com.au](http://www.jobguide.thegoodguides.com.au)
- A television guide (at least two copies)
- Newspapers (at least two different ones).

#### *Activities*

##### **1. Introduction**

The teacher should introduce the lesson by mentioning that people's lives are surrounded and supported by science, explaining that the lesson will examine some of the occupations which relate to science. The class should start the lesson by reading page one of the *Careers in Science* booklet.

##### **2. Exploration**

Divide the class into groups of four students:

- Give one or two groups a copy of a daily television guide (Group A);
- Give one or two groups the first six pages of a newspaper (Group B);
- Give one or two groups a copy of the *Job Guide* (Group C).

Instructions for each group:

###### *Group A*

Look at all the television programs in one day. Highlight all those that have some sort of science or mathematics focus – this includes drama series as well as news and documentaries. Have one group member write down all the program names and how they relate to science. Ask them to write down character names and their science-related occupations or tasks.

Also list any non-scientific jobs in which some knowledge of science would help, or a job which supports a science professional. For example: hospital administrator, journalist, lawyer, builder or cleaner.

Calculate the approximate percentage of programs shown in one day (on one or all stations) that relate to science in some way.

Students may also discuss other programs they watch which were not listed on that day's viewing.

###### *Group B*

Read the articles in the newspaper and record how many have a scientific or mathematical focus or connection. What industries and occupations are mentioned?

###### *Group C*

Pages 9-11 of the *Job Guide* (access via [www.jobguide.thegoodguides.com.au](http://www.jobguide.thegoodguides.com.au)) lists occupations that are analytical or scientific in nature.

Groups may do *Task One* or *Task Two*.

### Task One

Questions:

- How many jobs are listed as level one?
- How many jobs are listed as level two?
- How many jobs are listed as level three?
- How many jobs are listed as level four?

The students each then read the full description of one or two occupations. As a group they then choose one occupation and write a half-page short story entitled, 'A day in the life of a (occupation)'.

When reporting to the class, the group has the option of reading their story to the class or acting it out.

OR

### Task Two

Each group member is to choose two occupations from the list on pages 9-11.

As a group they then choose one occupation at each level for the group task.

From the full job description, they each write a set of statements that could be used in a quiz for other students to guess the occupation they are describing.

For example:

I work with patients; I do not use drugs in my treatment; I spent three years studying at university to qualify for my occupation; I am reasonably fit; I enjoy dealing with people; I work mainly with spinal or joint problems... I am a chiropractor!

The quizzes will form the basis of the group report to the class.

### **3. Group presentation of its findings**

After each presentation the teacher directs a discussion of the careers and information provided. They should illustrate the importance of science in everyday life, highlighting how some knowledge of science can benefit not only the way we work but also the way we live within society and the environment.

The teacher should also list all the occupations mentioned on the board, so at the end of the lesson it is clear that there are many science-related careers to choose from.

#### ***Alternative approaches***

If the teacher wishes, all groups could undertake the same activity or each group could complete a different task. One or two of these tasks could be set as homework.

Alternatively, you could allow each group ten minutes to work on their task, then swap the tasks around so each group gets to work on two or three of the tasks.

#### ***An additional task***

Students to read the profiles listed on pages 2–7 of the *Careers in Science* booklet, in order to discuss the question, 'Are these occupations represented in any current or past TV programs?'



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