# Year 11 Biology: School Assessed Coursework

You are to work in pairs or groups of three to design an experiment involving a plant response to an external stimulus. When you have selected your investigation, you need to fill out the table below that outlines the title, aim, apparatus and method you will use in performing the experiment.

**The apparatus section is critical, as the laboratory technician will need time to gather the required materials**.

|  |  |
| --- | --- |
| Names |  |
| Title |  |
| Aim |  |
| Apparatus |  |
| Method |  |

When you are carrying out the experiment, you will need to record your results in an appropriate manner. Given that many plant responses are slow, it is advisable that you record your results using photographs taken with a digital camera.

# Ideas For The Experiment

There is a large range of experiments that can be carried out. Your textbook is a useful source of ideas, as is your student workbook. Some possible ideas for experiment:

* Investigate the phototropic response of wheat seedlings to light from one side.
* Investigate the phototropic response of wheat seedlings to blue light from one side.
* Investigate the phototropic response of wheat seedlings to red light from one side.
* Investigate whether the tip of a wheat seedling acts as the receptor to the stimulus of light.
* Demonstrate phototropic and geotropic responses in a germinating seed.
* Investigate the effect of ethylene released from a ripe banana on fruit or flowers.
* Investigate how seedlings grow when in light compared to being in complete darkness

To get some additional ideas for this SAC go to the following website titled Plants In Motion and view some of the movies shown in the categories on the left hand side, such as tropisms, germination and flowers. Many of these could serve as the basis for your experiment.

<http://plantsinmotion.bio.indiana.edu/redirect.html>