***Dark side of the moon* Teaching and learning plan**

## Investigation 1: The dark side of the moon

Equipment needed per group:

* computers
* [Problem solving scaffold](http://assist.asta.edu.au/sites/assist.asta.edu.au/files/Dark%20side%20of%20the%20moon%20_yr%207_Problem%20solving%20scaffold.docx)
* [The moon worksheet](http://assist.asta.edu.au/sites/assist.asta.edu.au/files/Dark%20side%20of%20the%20moon_yr%207_%20The%20moon%20worksheet.docx)

Since this is a research task, all students require access to a computer and the internet. The Problem solving scaffold will guide them through the problem-solving process.

Equipment needed per group:

* a large Earth globe or basketball
* a small ball e.g. tennis ball
* a strong light source e.g. overhead projector, lamp or large torch
* [stimulus material](http://assist.asta.edu.au/sites/assist.asta.edu.au/files/Dark%20side%20of%20the%20moon_yr%207_%20Stimulus%20material.docx)

Both investigations require modelling of the moon’s motion around the Earth. The types of balls listed are not essential as long as the relative sizes are fairly consistent with those identified in the equipment list. Tennis balls are not suitable for simulating the Earth.

## Investigation 2: The moon’s changing face

Equipment needed per student:

* a computer
* [Phases of the moon](http://assist.asta.edu.au/sites/assist.asta.edu.au/files/Dark%20side%20of%20the%20moon_yr%207_%20Phases%20of%20the%20moon%20worksheet.docx) worksheet

Equipment needed per group:

* a large Earth globe or basketball
* a small ball e.g. tennis ball
* a strong light source e.g. overhead projector, lamp or large torch
* a swivel seat (optional)

The swivel seat is not essential, but makes it easier for the students to model the moon’s revolution around the Earth.