Gravity

Gravimeter ***D***

This is a fun apparatus to show how a gravimeter works. A small weight is attached to a spring and the spring attached to a nylon thread. The nylon goes into a box and out of the top where it can be pulled surreptitiously.

Hold the apparatus over something of low density and pull the nylon up, or hold it over something dense (student's head!) and lower it.

Idea from Peter Loader

Wooden block in tank ***D***

To illustrate the effects on gravity of regions which are not in isostatic equilibrium use a transparent tank filled with water and a wooden block. The block is held just above the water to illustrate areas of excess mass (new volcano) and is pressed down into the water to illustrate areas of deficient mass (sinking plate).

Gravity and volcanic islands ***A P F 10 min***

Students place a triangle of wood representing a volcano onto a sheet of foam which is floating on water. They work out how the pull of gravity varies over the volcano and surrounding trough. In a second activity they use a magnetic model to work out how the pull of gravity varies as the volcano sinks due to isostatic adjustment.

Photo of magnetic model. The red triangle (volcano) can be moved up and down.