**Activity: Introduction to map reading**

**Learning Intention:**

Develop students’ ability to interpret maps and relate topographic features to the physical environment, and physical features to the topographic image.

**Description:**

* Give students the grid reference for an area that covers four grid squares on a topographic map.
* In sand or soft soil ask them to build a model of the features within the area of those four grids. The model must be to scale.
* Choose an area on the map with a range of features e.g. a stream, a ridge line with a saddle, a spur, a highpoint etc
* Students can use dead or fallen vegetation to highlight some of the features on their model.

**Safety considerations**

* Clearly define the boundaries in which students can work and collect additional material if required.
* Ensure teacher/supervisor can see all students at all times.

**Equipment**

* If outdoors: enough maps for students to work individually or as pairs. An area with sand or soft soil that will allow students to build their models
* If indoors: enough maps for students to work individually or as pairs. Trays with sand or soft soil to allow students to build their models.

**Location**

* Ideally the location is where the students can get a view of some of the area in the four grid square for which they are building a model.
* A sheltered outdoor space that is large enough for the group to work and without interfering with each other, yet for the supervisor to see everyone.
* If an indoor location is being used, it needs to be big enough for the group to work comfortably.

**Time**

* 30-60 minutes (depending on the students’ knowledge and the detail required in the model).

**Student processing/reflection**

* Students view each other’s models. Identify any differences and compare those to features on the map.
* If in the ‘real’ location ask students to relate the model to their surroundings.
* Use the model to plan a short route. Ask students to describe the sort of landscape they would be walking through if they followed this route.
  + Relate altitude gained/lost to shape of hills on the model and to travel times.
* Introduce and identify catching features and handrails on the route.
* Identify possible escape routes.
  + Identify possible campsites on the chosen route.

**Possible adaptations**

In small groups students build a simple model. The groups rotate and draw a topographic map of another group’s model.