

## the Naledi3d Factory Capacity building in rural communities - soil conservation

**Purpose:** Five *interactive3d learning objects* were built to address issues relating to soil conservation. *Principles of Soil Erosion* looks at raindrop, sheet and rill erosion, along with *Gully Formation* and one remedial measure - *How to Build a Simple Stone-Check*. Finally, because soil loss is a major issue in Southern Africa; two low-cost ways of *Pegging-Out* fields are also addressed. This work was undertaken as part of a 2-year WK Kellogg Fndn. project to explore the use of VR as a means of capacity building in rural communities.



**Partners:**  
W.K.Kellogg Foundation  
& World Links Trust

W.K. KELLOGG  
FOUNDATION



### In a Nutshell:

Through a collaboration between the Naledi3d Factory and the World Links Zimbabwe Trust, this project has produced a range of *i3dlo's*, which were translated into Shona and Ndebele by World Links and taken to rural communities in Zimbabwe (and in particular, to smallholding farmers) to provide them with relevant farming and life skills that have a direct impact on agricultural productivity.

### Pegging out a field - a soil conservation measure:

Southern Africa is losing soil at an alarming rate and poor ploughing practice is one of the major causes. By understanding where the level contour lines lie in a field, and by ploughing along these contours, run-off and resulting soil loss is minimised - and more water is retained in the field for use by plants. Two *i3dlo's* shows how to survey a field using either an A-frame or line level, including how to make the equipment needed and how to use them to find level contours, as well as slopes of 1:100 and 1:250.



### Erosion, gullies and stone checks:

A basic understanding of land dynamics is crucial to effective land management. By understanding the basic principles of erosion, & how this can easily rob the farmer of soil, he or she is better able to adopt measures to reduce, or eliminate the impact of erosion. Three *i3dlo's* address this issue, by showing raindrop & sheet erosion, how rills can form, and how rills, if not attended to, can lead to gullies. Gullies are very hard to repair, but stone checks offer one way of stopping them from growing further.

