

**Video question script, KS2: Optional activity: Save our soil**

Question/Activity	Likely response	Rationale
When teaching about the Earth we often use practical activities to explore Earth processes. This example shows how soil erosion might be reduced		Preparation for bridging from the model to real Earth processes
What is this?	2 trays with identical soil and wooden battens, thin turf, blocks, watering can	Concrete preparation = asking them to describe the items
How can we test the soil in these trays for erosion, especially when the ground is sloping?	Set up the trays with an identical slope and pour water on, (but don't do it yet)	Construction as pupils build up ideas: cognitive conflict over the ideas
Do we expect a difference in the rate of erosion between the bare soil and the tray with grass on top of the soil? Why?	The grass will protect the soil and will soak up the water before it can get through and slow it down (answered later).	Construction as pupils build up ideas: cognitive conflict over the ideas
Demonstrate spraying water on each tray	The grass does indeed protect the soil.	Construction – confirming the pattern
Photo of maize field with soil erosion on sloping part. Why is the erosion so much more in the foreground of the photo? ( <i>Photo P. Kennett</i> )	Sloping ground; less plant cover	Metacognition – discussing the possibilities
How might the farmer have lessened the chance of soil erosion in this field?	Sow more seed on the slope. Plough across the slope rather than up and down. Sow grass instead.	Relating the small scale investigation to real farmland is a bridging skill.