

Extension activity to: **Mighty river in a small gutter: sediments on the move**

### **Moving sediment in an even smaller bottle gutter Using cut-off plastic bottles as 'stream tables' so that all pupils can take part**

You can see nearly all the sediment movement visible in the 'Mighty river in a small gutter' Earthlearningidea activity at the scale of a cut off 2 litre bottle. The advantage of using cut-off bottles is that all groups in the class can carry out the activity at the same time.



The 2 litre plastic bottle in action. (Peter Kennett).

Sediment movement seen:

- Erosion hollow where the water is poured in
- Transportation of the sand down the bottle (by rolling, sliding and jumping grains)
- Deposition of sand in the pool at the bottom – in a small micro-delta
- (High energy flow = erosion; moderate energy flow = transportation; lower energy flow = deposition)

This is also a simulation of:

- A waterfall plunge-pool
- Transportation by rivers such as the Ganges or your local river
- The formation of a delta, such as the Ganges or Nile deltas – building out into the sea

#### **Resources:**

- cut down 2 litre plastic bottles, as shown in the photo (cut down using a knife and scissors)
- small blocks for propping up the bottles
- Blu tac™ to stop the bottles sliding off the table
- washed sand (to fill the bottles to within 2cm of the top)
- plastic jugs to pour water
- bowls or buckets to catch the overflow

**Source:** Devised by Chris King of the Earthlearningidea Team.

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