

## Workshop 4 - Buddling

The model buddle is a piece of gutter with baffles glued across it. Set it up at an angle, using a block of wood.

Place a bucket at the bottom to catch the water. Pour a sample of crushed galena and sand onto the top of the buddle.

The silvery lead ore (Galena) is 7 times denser than water.

Sand is about  $2\frac{1}{2}$  times denser than water.

When you pour water onto the galena and sand mixture, which do you think will remain near the top baffle?



Which will get washed to the bottom?

Now, gently pour water from the beaker onto the pile of galena and sand.

You can try to change the angle of the gutter or the rate at which you pour the water onto the minerals.

When you have finished, please wash the minerals carefully into the bottom bucket. The tutors will get the minerals back later, so DO NOT throw the water away!

Turn over the sheet

## A buddle in Cornwall



Big buddles were used at Ecton to separate the copper ore from the waste. The photo shows a circular buddle in Cornwall, still used by a very small firm to separate tin ore from the waste.