



Yandy (Separation by Movement) - Student Activity

Erosion involves movement or transport of materials.

Anything that moves mixed materials will separate them by size and density.



Aboriginal people used a yandy or coolomon to separate out seed from sand. It had many other uses which are explained in another section.

Moving a mix of materials in a yandy or equivalent will demonstrate this.

Materials per student

- A yandy, laboratory tray, panning dish or meat tray.
 - A mixture of materials to represent weathered clasts (bits of rock).
1. Place the materials in the yandy and mix until homogenous
 2. Hold the yandy lightly with one end slightly raised
 3. Gently swirl the materials within the yandy. It really doesn't matter which movement you use as long as you are consistent so the forces are in a uniform direction. Keep the movement constant.

Because girls have wider hips than boys they are often better at this activity.

In the goldfields the diggers couldn't use water to pan for gold. Water was brought in on camel back and was almost as expensive as gold itself. The miners sometimes used Aboriginal girls to "dry pan". They would yandy the dirt and then toss it up into the air and catch most of it again as it fell down. Here and in America, men would also toss gold bearing dust on a blanket up into a breeze. Fine flakes were supposed to stick in the blanket fibres and denser pieces of gold fall directly back down onto it. Lighter clay rich dirt would blow away in the wind.

The Wilfley table is a modern development of this simple machine. It can be used to separate gold and tin from gangue (crushed ore) and coal from mullock (uneconomic country rock). It employs water to move crushed ore over a riffled slanting surface and improve separation.

<http://www.youtube.com/watch?v=qYvXrAfhK6I>