

## Sorting by Movement – Teacher Demonstration

**Erosion** is the removal and transport of materials by gravity, water, wind or animals. **During the movement sorting occurs.**

### Sorting by (Human) Movement - Teacher Demonstration or Student Activity



An Aranda or Arrente yandy



A dustpan used as a yandy

#### Materials

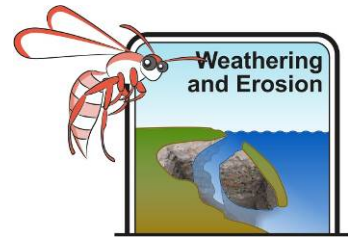
- A yandy, a dustpan or a flattish tray. (The large meat trays provided by supermarkets are excellent but trays under student desks will do). If you have Aboriginal “aunties” who are willing to visit the school, they may be able to demonstrate how moving mixed materials in a yandy will separate them out. Women used yandies to separate out grain from sand and in desert areas where water was rare and panning for gold difficult also to separate gold dust from soil and crushed rock. Refugee girls from sub-Saharan Africa and from islands to our north are also proficient in this skill. Because boys do not have broad hips (wide set acetabulae) they are often less able to work a yandy than girls because their hips have more limited movement. (More information is in the extension activity).
- A mixture of dry materials of differing size and density. I would suggest yellow builder’s sand or beach sand, some dried peas, some rice and some heavy metal objects such as washers or bolts.

#### Method

1. Place dry mixture in yandy or tray
2. Using a gentle swivelling movement from the hips or knees swirl the materials round in a constant motion. Hold one end of the yandy slightly higher than the other. Do not change direction or speed.

Add some dried leaves and pieces of paper to the mix. If it is windy the mix can be swirled and tossed into the air. Paper, leaves and fine dust will be carried away in the wind. Students should avoid standing downwind during this activity.





## Sorting by Movement – Teacher Demonstration

### EXTENSION - Aboriginal Use of a Yandy

The yandy or coolamon, is a women's tool however in its preparation, any cutting and scraping of the wood with stone tools, was men's work. It was usually made from part of a hollow tree. Sometimes fire would be used to increase the hollow. The yandy is a multi-purpose tool. It has sharper edges on the ends for digging up lizards and small game out of the ground and for carrying them back to camp. It was used to carry babies, water and fruits. Being constantly on the move, Aboriginal tools either had to be multipurpose or able to be quickly created anywhere. Yandies were much valued and carried about.



*Yandy with sand and seeds. The large brownish blobs below it are resin from grass trees.*

Australian native grain seeds do not stay on the stalk when they are ripe, as do most grains favoured by European farmers. Women knew that wind would blow the ripe seeds all over the place to be concentrated into hollows or wind-shelter spots behind clumps of spinifex. This is a classic example of erosional sorting. Aboriginal ladies and girls would gather up the concentrated seed and sand mix into the yandy. Any large unwanted material would be hand picked out and the remainder lightly crushed between their hands or between rocks to loosen any inedible outer seed coat or husk. They would then move out onto a windy clay pan and toss the mix up into the air to free the seed husks and let them blow away. When the remaining mix had been yandied and the seeds separated they would be ground between rocks, have a little water added and baked on hot rocks in the fire to make Johnny Cakes.

In other parts of the world, woven flat baskets were used to winnow (wind separate) seeds from chaff and pods.