



Sedimentary Pile – Student Activity

Sediments are **compacted and cemented** to become rocks. Mineralising groundwater cements the clasts together and overlying beds provide pressure that compacts and de-waters the sediments.



Create your own rocks by compacting and cementing sediments.

Materials per student or group

- Containers with different sediments e.g. builder's sand, garden sand, beach sand, potting mix, pea gravel, pindan. The more varied the colours the better.
- Clear plastic drinking glasses or the bottom half of clear plastic drink bottles
- A cementing solution in a small beaker
- A container for excess cementing solution
- Stanley or craft knife (option)
- Fossil replica (option)

Sediments grade upwards from coarse to fine.

1. Lay down layers of sediment
2. If you are using an index fossil agree with the rest of the class which type of sediment it would be found in. These fossils are "index fossils". They indicate a particular short period of time.
3. Compact your sediment by pressing firmly down on it
4. Pour in some cementing agent and make sure your sediment is thoroughly saturated.
5. Pour off any excess cementing agent into the container provided
6. Place your wet sediment pile as directed by your teacher
7. When they are dry exchange your pile with another group or person

Looking at your own compacted and cemented sedimentary rock, can you work out which way is "up"? _____

Looking at the other rock, can you work out which way is up? _____

Can you align all the piles so that all your fossils line up? _____

