





## Filtering dirty water

## **Necessary material**

- 2 filters
- Sand
- Gravel
- Active carbon
- Some earth (to pick up yourself)
- · some food colouring
- 3 funnels
- 3 graduated cylinders
- 1 spatula
- 1 plastic beaker

## **Process**

- 1. Place a funnel on each of the three graduated cylinders
- 2. Prepare 2 filters
- 3. Place one filter each on 2 graduated cylinders only
- 4. Fill them to about three quarter: the first with active carbon, the second with sand.
- 5. Fill the third funnel (the one without filter) to about three quarter with gravel.
- 6. Clean the gravel, the sand and the active carbon by pouring about 40 ml of water in each funnel.
- 7. Throw away the water, when it has completely seeped through into the cylinders.
- 8. Pour 100ml of water into the plastic beaker. Add two measures of earth, using the spatula. Add a drop of food colouring.
- 9. Mix using the spatula and pour over the gravel.

10. Let the mix seep through the gravel and gather in the cylinder. Write down your observations.
11. Now pour this filtered mix over the sand. 12. Once the mix has seeped through the sand, observe it. Write down your observations
13. Now pour this filtered mix over the active carbon, right in the centre of the funnel.  14. Observe the filtered mix.
15. Clean the gravel, the sand and the active carbon as you did at the beginning of the experiment before returning them to their bottles.

