

Plant dissection – Dandelion

Explore parts of a plant using a scalpel

Aim: Use real plants and *Pappus* Plant ID sheets to identify key parts of a flower.

Resources: dandelion heads, scalpel, tweezers, magnifiers

Dandelions are plentiful and relatively easy to dissect. Observations confirm that the 'head' is composed of a mass of smaller flowers called florets.

When in full flower, cut the dandelion head in half with a scalpel. Tweezers are useful to separate each floret. You can see each pollen covered *stigma* (two lobes), *style*, and *anther* using a magnifying glass. You can also clearly see the new seed (ovary) at the base and the white fibres that will form the 'parachute' to spread the seeds widely – these are called *pappus*.

Dissect dandelions at different stages of maturity for comparison purposes.



Plant dissection – Dog Rose

Explore parts of a plant using a scalpel

Aim Use real plants and *Pappus* Plant ID sheets to identify key parts of a dog rose hip.

Resources: rose hips, scalpel, tweezers, magnifiers

Collect two hips from a dog rose. Cut one in half from the top down to the point where it is attached to the stalk

(*pedicel*). The black disc will have a tuft of hair-like features, which are the decaying remains of the *stigma* and *filaments* that once supported the *stamen*. Carefully follow each "hair" as it travels downwards to enter a single seed (*ovary*).

Tease each seed and its connecting *style* away from the others. If you can see more than one *style* enter a seed then this will mean that it has more than one *ovary* within it.



Plant based cosmetics

Discuss cosmetics and the use of palm oil

Aim: Raise awareness of the issues around palm oil in cosmetics and food.

- Research the issues around the farming, trade and use of palm oil
- Harvest lavender (ask a neighbour if there is none growing in school) and make lavender bags or bath bombs; instructions can be found online.
- Why have plants traditionally been used in cosmetics and hygiene products? Which ones are still used? Why?

If you have access to a source of Soapwort (*saponaria*), pupils could experiment with this to compare its efficacy to modern soap powders.



Make avocado lip scrub

Explore a cosmetic use for avocado

Aim: To explore how plants can be used to make cosmetics and facial products

Ingredients:

- 1 teaspoon of crude avocado oil (*Persea gratissima* oil)
- 1 teaspoon of brown sugar (the finer the sugar the better)

Instructions:

1. Mix the sugar and avocado oil in a small bowl until blended.
2. Apply the sugar/oil blend to your lips, using your fingertip and a gentle circular motion. Wipe the lips with a tissue and enjoy the silky skin feel over your lips. It's as easy as that!
3. What did each of the ingredients do, to make your lips feel smooth? Clue: exfoliated and moisturised.