

Chlorophyll printing

Outdoor, Age 6 – 16, Cost per student in £– 0.00

Curriculum areas – Science, Biology, Art, Photography, Chemistry, History.

Chlorophyll printing creates an image on a leaf. When a leaf is picked and placed for several days in sunlight it will go pale. If you place an object or transparency on top of a leaf under a glass frame an image will form, resulting in a wonderful opportunity for creativity and to talk about photosynthesis with students.

Plan ahead! Chlorophyll images can take up to a week in sunlight. It really is a wonderful experiment to return to when the class have forgotten about it! The best leaves to use are: nasturtium, banana, fig or vine leaves but experiment with what you have around the school. Be aware though that tree leaves tend to be a bit hardy! Why not experiment with green leaf vegetables or vines?

Use a positive image or object with a distinct subject. Maybe a favourite cartoon character or something related to the sun or plants. Photocopied images on paper don't allow enough light through so print the image onto an acetate. To increase the contrast you can print two acetates and sandwich them together.

Materials:

- Freshly picked green leaves.
- Clip frames
- Acetate templates
- Several days!



Image by [Di Bos](#) on a bindweed leaf.

Videos

[Ruth Jacobs](#) demonstrating the process with plants found on her allotment. (best to avoid tearing up local orchids etc!) An accompanying handout is [here](#)

[Almudena Romero](#) a lovely, short, video without any chatter although uses some unnecessarily pricy frames. It also shows how to make the image more permanent with copper sulphate (which won't be needed in the classroom). I would also suggest not to peek at the images half way through the exposure, however tempting!



Troubleshooting

Old leaves

It is important to experiment first with leaves you have easy access to near the class room. You don't want several days of expectation to be dashed by a dud leaf!

Initials

Get students to write their initials somewhere to prevent fights!

Templates

Acetate templates can be used either on their own or with card templates etc, to accompany a project or appease organisations who are employing you! Make sure you use the correct sheets of acetate so the photocopier doesn't gunge up with melted the plastic, (if it does,,walk away slowly!). Leaves require a positive image to make a positive image on the leaf.

Tilting the frame towards the sun (for faster exposure)

This works fine with glass clip frames but these should be avoided with small children. The safer 'bendier' plastic frames can result in the leaves etc falling off the paper. It is also best to reassemble the frames yourself.

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