

DAFFODILS & DETECTORS

Scintillation materials emit light flashes when radiation is absorbed. The light strikes a light sensitive surface which is then converted into an electric signal that can be measured and counted.

We use these scintillators in our detectors in the ISIS Neutron Source, our Central Laser Facility and Diamond Light Source at RAL to study the structure of materials at a microscopic level.

What does this have to do with daffodils?

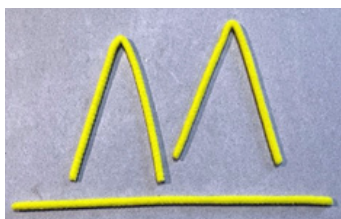
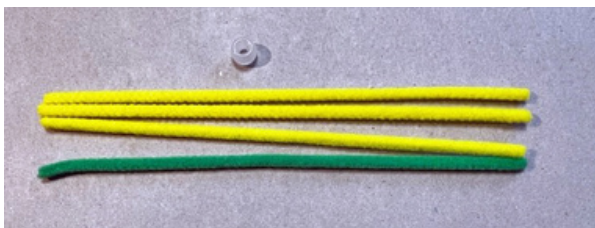
Our clever scientists and engineers have made a pretty display using scintillation materials to show how they emit light when detecting radiation (in this case, UV light).

Now you can make your own daffodil shaped detector that will change colour when it detects Ultraviolet (UV) light from the Sun.

Make Your Own Daffodil Detector

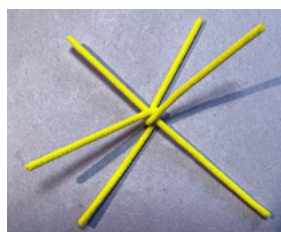
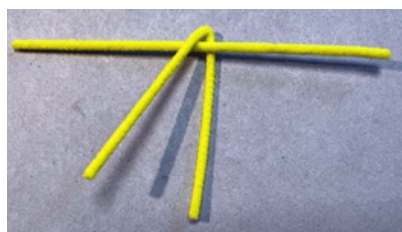
What you'll need:

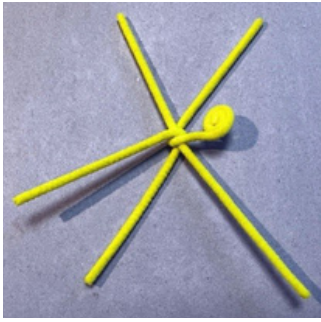
- 3 yellow pipe cleaners
- 1 green pipe cleaner
- 1 UV bead



1. Start by folding 2 of the yellow pipe cleaners in half to find the mid point.

2. Hook one folded pipe cleaner over the middle of the unbent one. Hook the 2nd bent pipe cleaner the other way and it should look like a star.

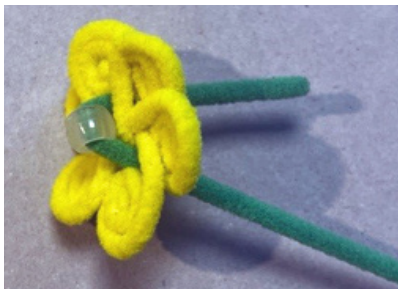




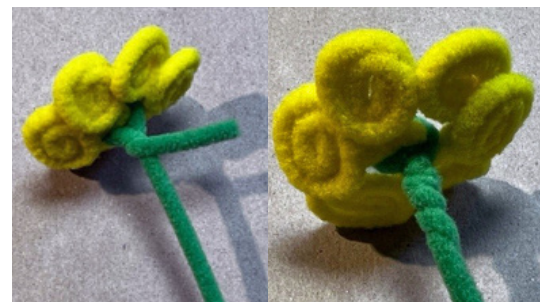
3. Take each end and roll it tightly like a snail - keep winding until you get to the center.



4. Repeat until all the 'petals' are rolled up and then arrange them evenly.



5. For the stem, bend about 4cm of the end of the green pipe cleaner into a 'J' shape, thread the bead on to it and hook it through the middle of the flower.



6. Twist the end around the stem several times until it feels secure.



7. Take your flower outside into the sunshine and watch it change colour when it detects UV light.