

LIGHT POLARISATION ON REFLECTION

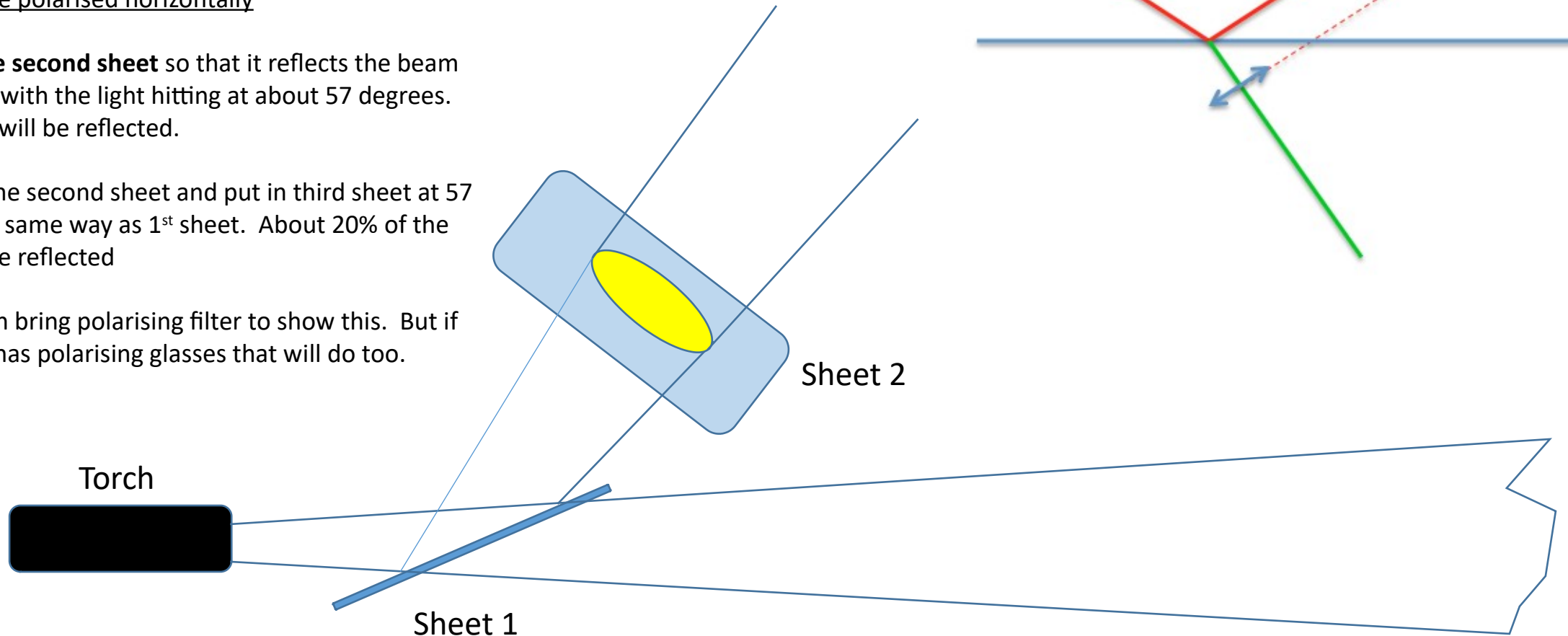
Need, darkish room, bright torch. Three flat plastic sheets (windows) - like CD covers. Mounts for these. Plastic bottles, containers etc with cutouts.

One Reflect the torch sideways from the surface at about 57 degrees to normal incidence. The reflected light will be polarised horizontally

Mount the second sheet so that it reflects the beam up. Again with the light hitting at about 57 degrees. **NO LIGHT** will be reflected.

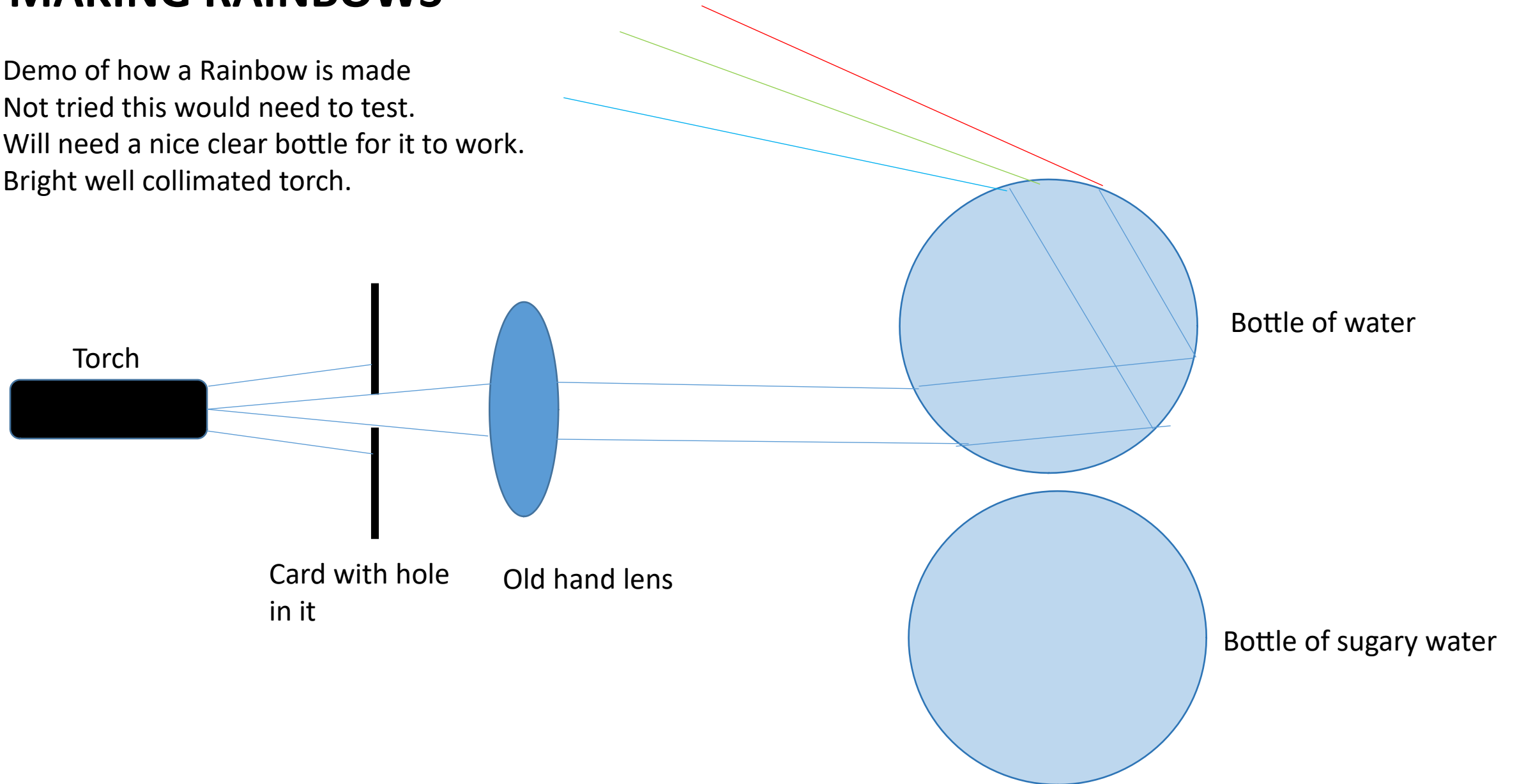
Take out the second sheet and put in third sheet at 57 degrees in same way as 1st sheet. About 20% of the light will be reflected

Note:- Can bring polarising filter to show this. But if someone has polarising glasses that will do too.

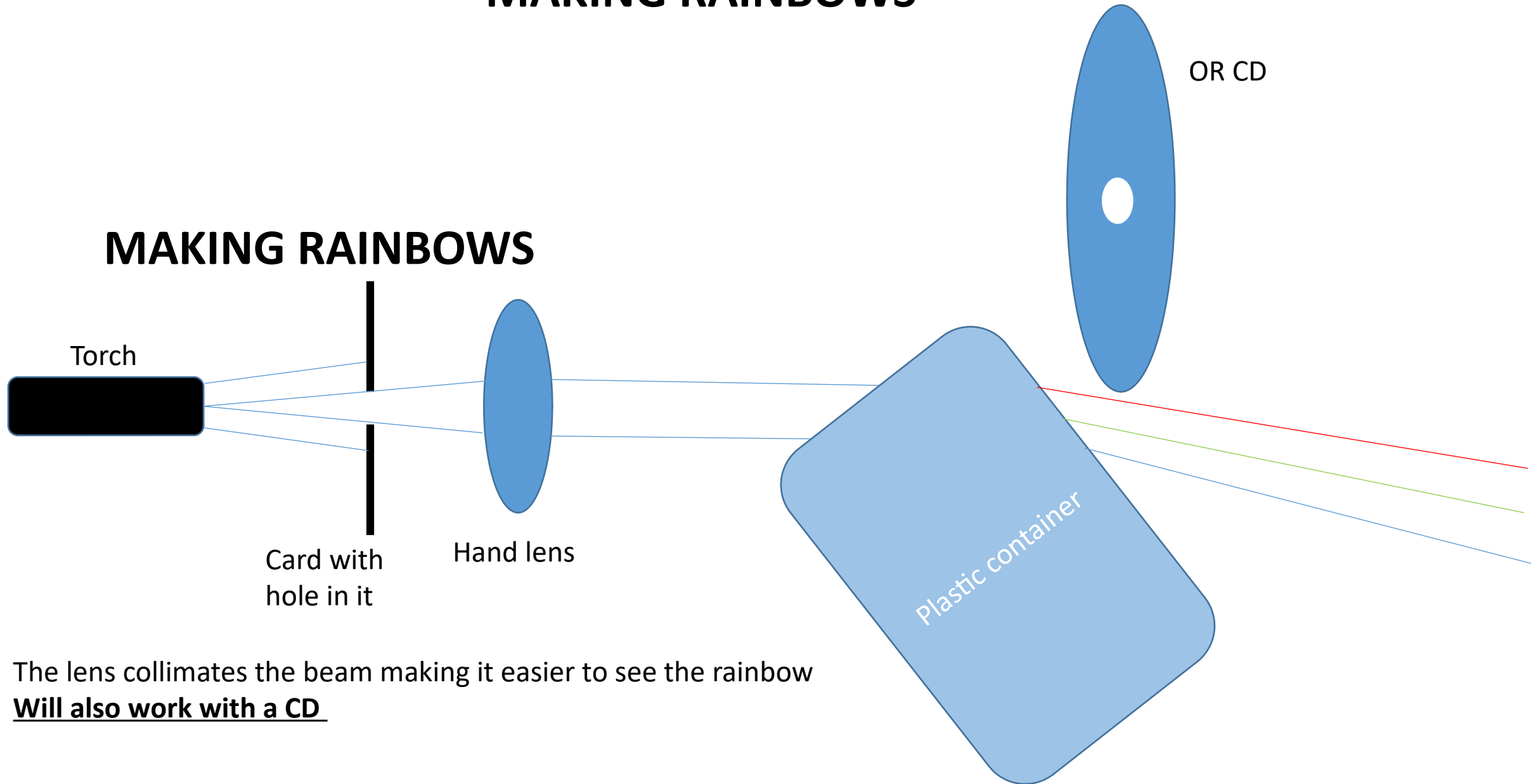


MAKING RAINBOWS

Demo of how a Rainbow is made
Not tried this would need to test.
Will need a nice clear bottle for it to work.
Bright well collimated torch.



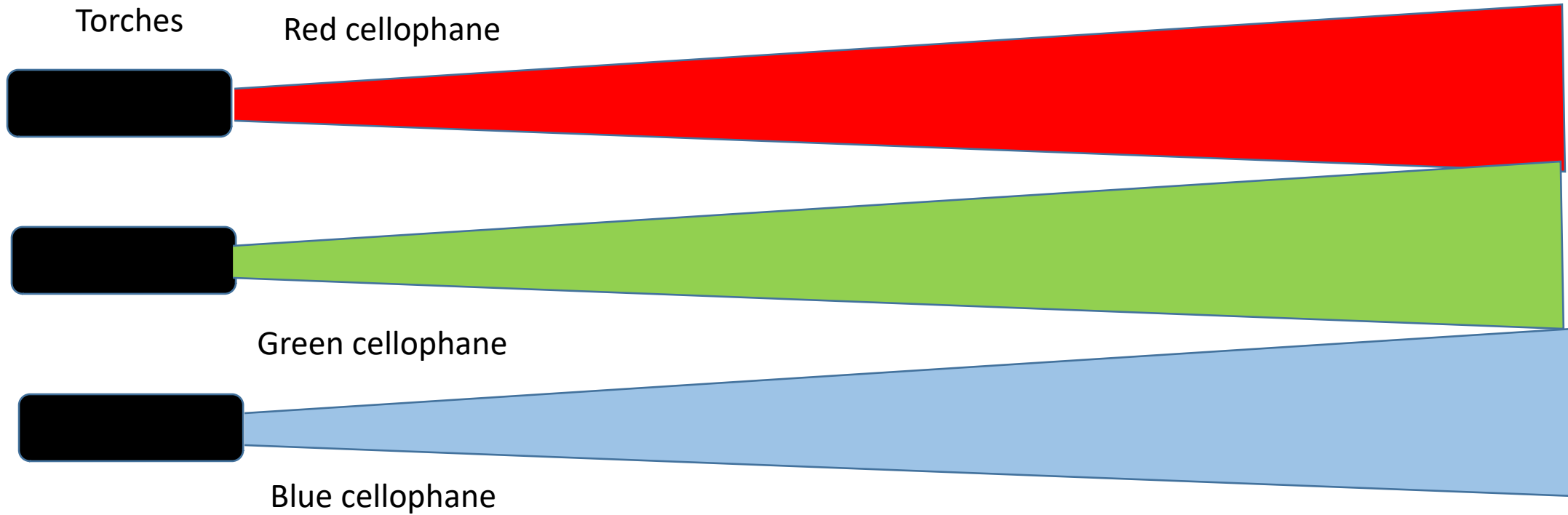
MAKING RAINBOWS



MAKING RAINBOWS

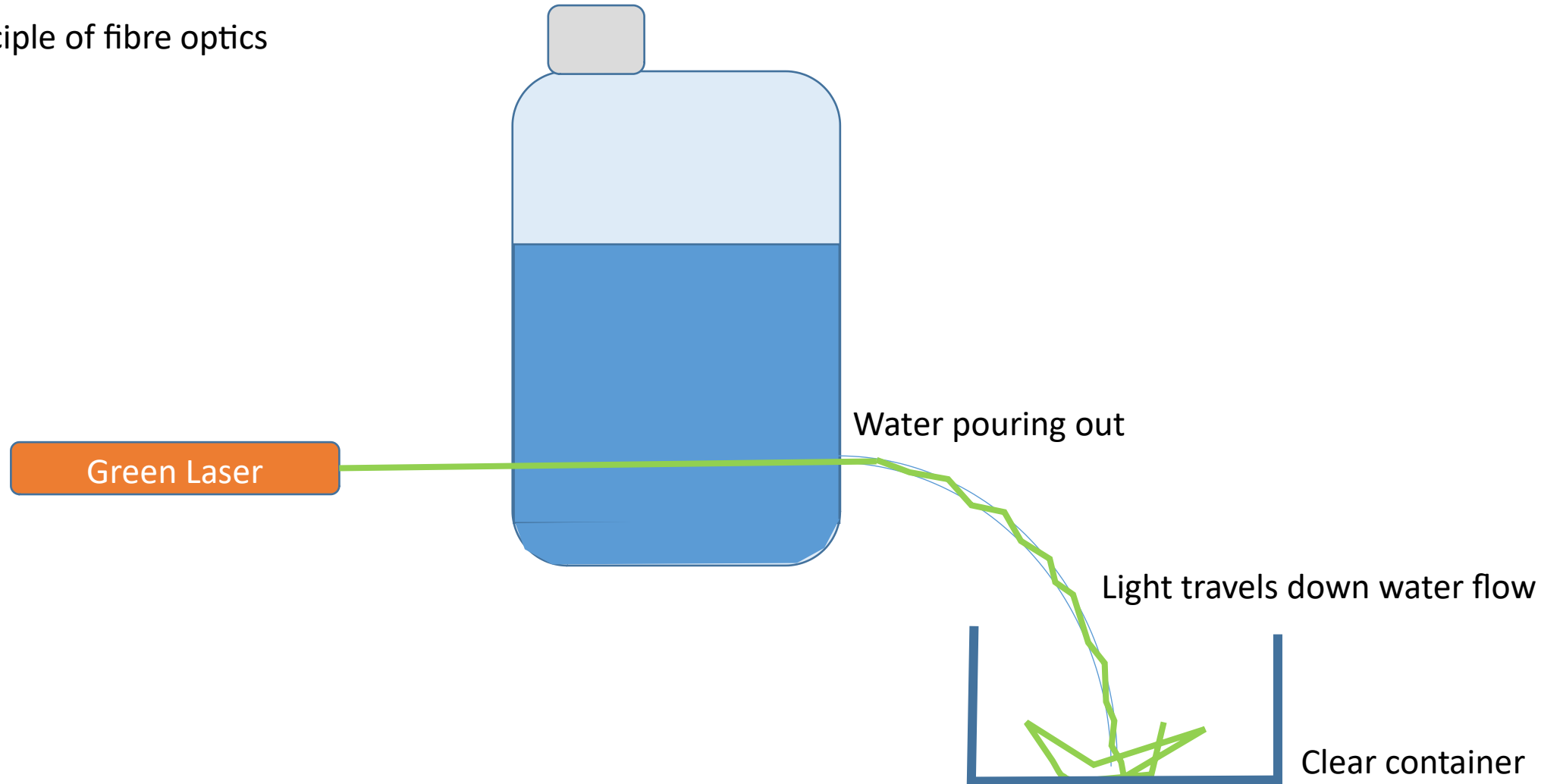
The lens collimates the beam making it easier to see the rainbow
Will also work with a CD

WHAT IS WHITE LIGHT MADE OF

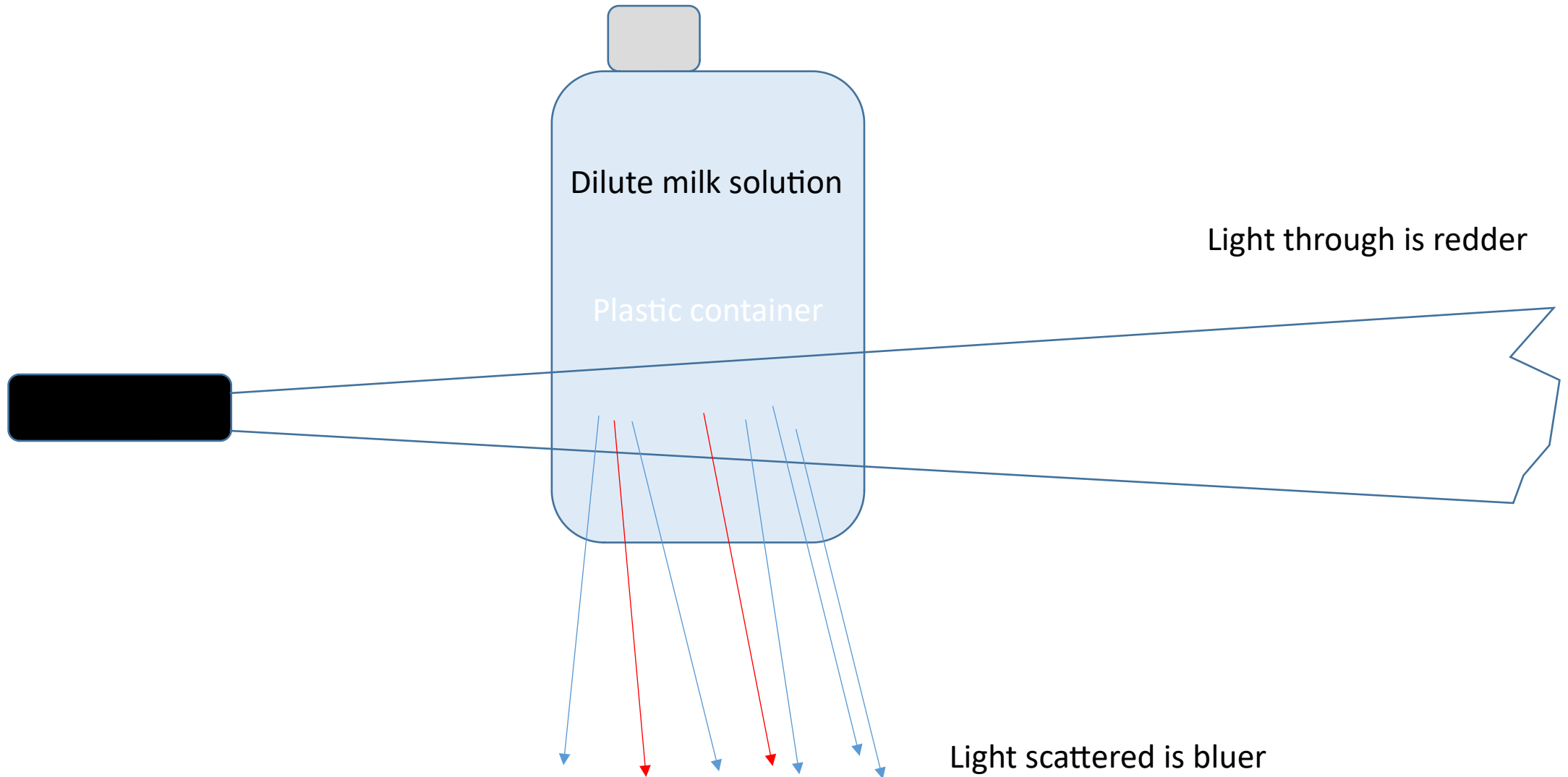


GUIDING LIGHT

Principle of fibre optics



WHY IS THE SKY BLUE, or sunsets red?



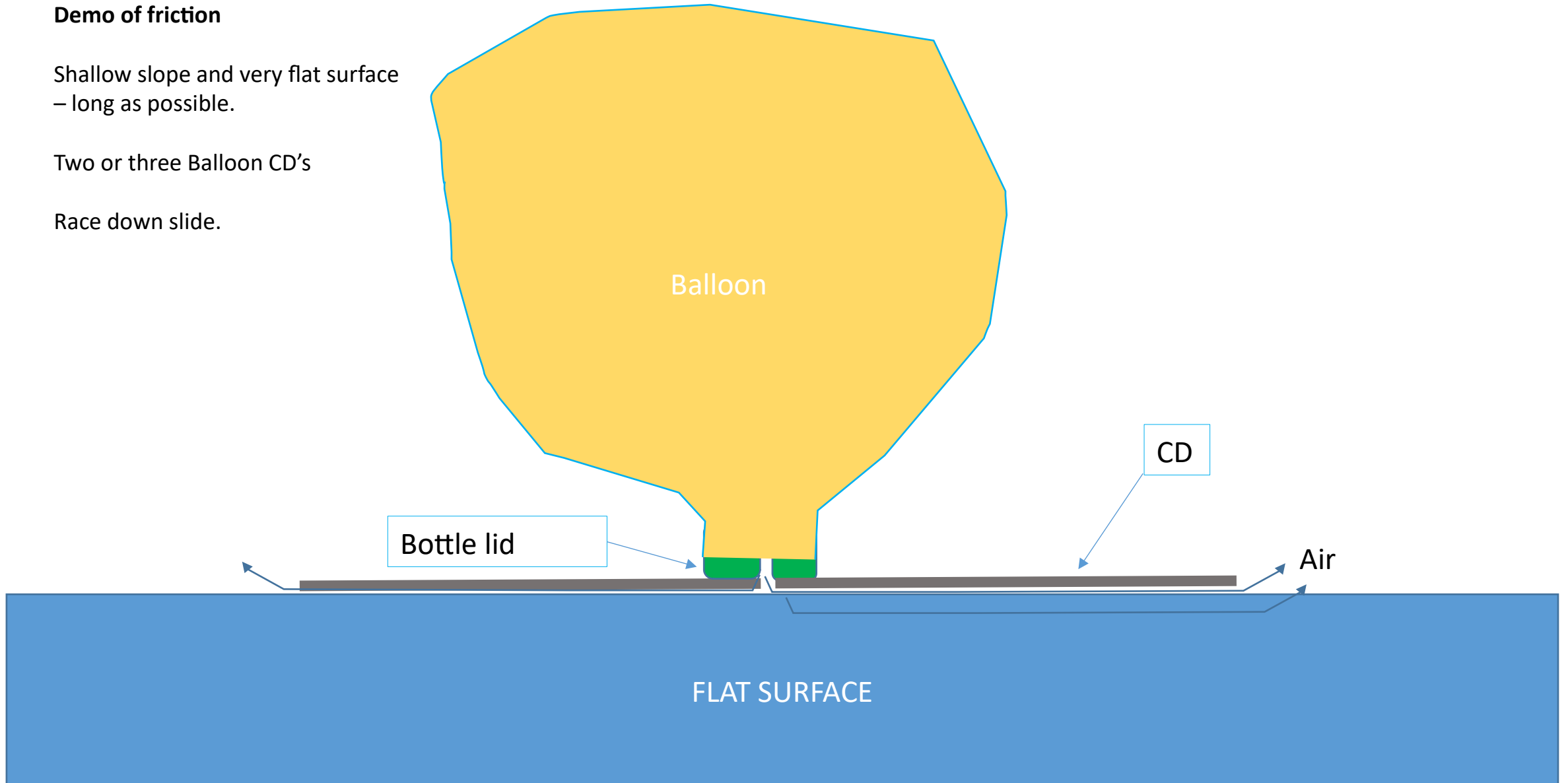
FLOATING CD'S - CD RACING

Demo of friction

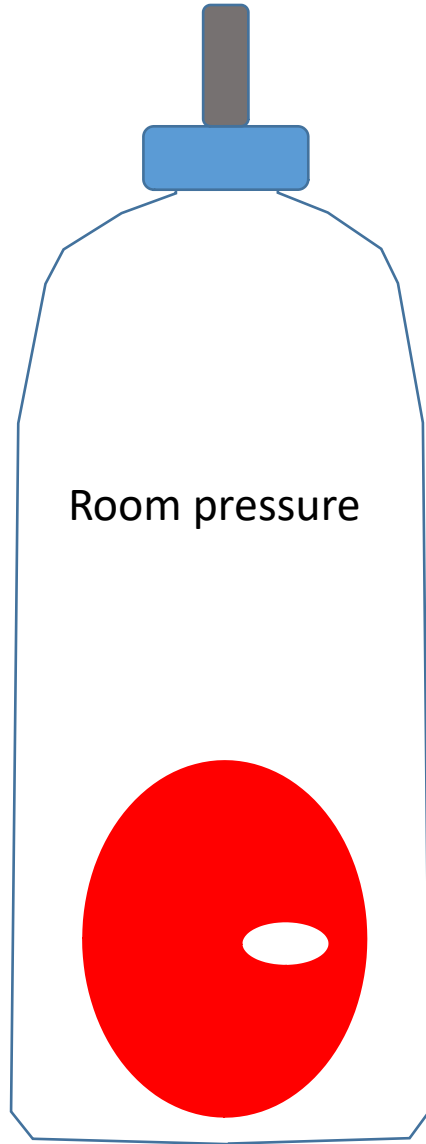
Shallow slope and very flat surface
– long as possible.

Two or three Balloon CD's

Race down slide.



AIR PRESSURE



- Old bike valve
- Bike Pump - with guage
- Big Coke bottle
- Wee Balloon – partially blown up

Note that plastic coke bottles will stand pressures well in excess of 2 atmospheres (30 psi) so it should be safe to shrink the balloon 3 or 4 times!

