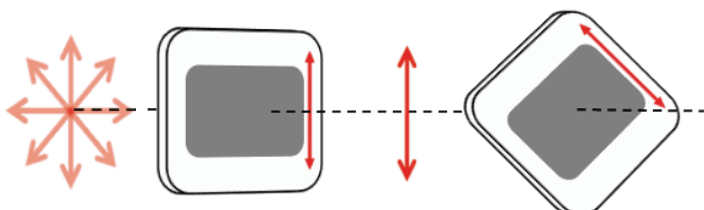


One Polarizer:

1. Does the amount of light you can see (your ability to see the cube) change as you rotate the polarizer? (Rotate it 360 degrees and find out!)

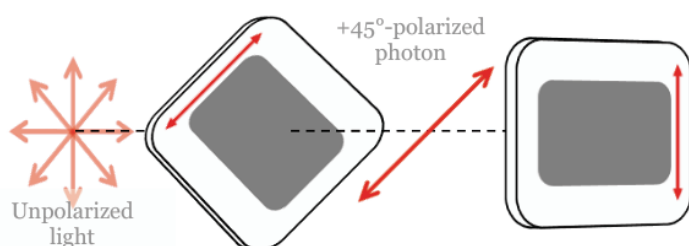
Two Polarizers: Set the first polarizer is vertical polarization



2. If you keep the first polarizer fixed, does the amount of light you can see (your ability to see the cube) change as you rotate the polarizer?
3. How much does your ability to see the cube (the light you can see) change? Fill in chart:

Degree of second polarizer	0	Between <->	45	Between <->	90
Amount of light you can see					

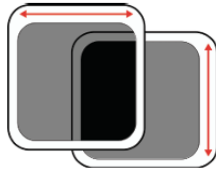
Now rotate the first polarizer so it is 45 degrees (you have changed its basis)



4. What if you start with the first polarizer at 45 degrees? Fill in the chart:

Degree of second polarizer	45	Between <->	0	Between <->	-45
Amount of light you can see					

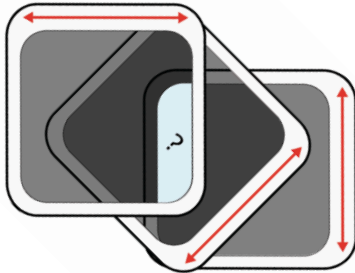
Three Polarizers: Set polarizers one and two at vertical and horizontal polarization



5. Can you see the cube when looking through both, when they are at 0 and 90 degrees?

Now add the third polarizer between them

For 6:



And for 7:



6. What happens when you rotate the third polarizer, between one and two? Fill in chart:

Angle of the third polarizer	0	Between <->	45	Between <->	90
Amount of light you can see					

7. Now what if you rotate the basis, so polarizer one and two start at 45 and -45 degrees?

Angle of the third polarizer	45	Between <->	0	Between <->	-45
Amount of light you can see					

8. Does it matter what basis you start in, for whether or not you can see light between two consecutive polarizers?
9. Is it the rotation angle BETWEEN any two consecutive polarizers that matters, for whether or not you can see light between them?