**The student worksheet includes simplified versions of these descriptions of common causes of visual impairment. Below the descriptions are explanations of which VI goggles represent which disease state.**

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| **Retinitis Pigmentosa**  Retinitis pigmentosa refers to a group of genetically inherited conditions that causes progressive vision loss. Retinitis pigmentosa leads to an irreversible loss of peripheral vision over time. Your peripheral vision gives you the ability to see general shapes and gives you a 'get-about‘ sense when you are moving about.  In these disorders there are abnormalities of photoreceptors (the cells in the eye that normally change light into signals that are received by the brain). These abnormalities lead to progressive loss of vision. People affected with these conditions first experience difficulty seeing in low light conditions, and develop “night blindness”. Following this, they experience reduced peripheral vision. Eventually, they can lose central vision as the disease progresses to its late stages.    **Figure 1 – An example of the effect of Retinitis Pigmentosa on how a street scene is perceived.** Image retrieved from: <http://li129-107.members.linode.com/about-low-vision-blindness/vision-disorders/retinitis-pigmentosa/>, last accessed 29th April 2016.   |  | | --- | | **The goggles with very small holes in the centre of the eyepiece represent Retinitis Pigmentosa, as this condition results in peripheral vision loss.** | | **Age Related Macular Degeneration**  The most common form of vision impairment that results in blindness is **age-related macular degeneration**. In people who are affected, vision progressively gets worse over time. Your eye works just like a camera, in that the lens at the front of your eye focuses the image from the outside world onto the **retina** which lines the back of the eye. The retina acts like the film in the camera and captures what we see which is then interpreted by our brain.  The **macula** is the very centre of the retina. You are reading this text using your macula. It is responsible for your central, detailed vision. Damage to this region, in turn causes damage to these aspects of your vision.Macular degeneration is characterised by progressive damage to cells in the macular region of the retina, resulting in irreversible central vision loss. This can affect an individual’s ability to see fine detail, drive and recognise faces.    **Figure 2 – An example of the effect of Macular Degeneration on how a street scene is perceived.** Image from: <http://www.clellandandboyd.com/communities/3/004/012/343/113//images/4604134836.jpg>, accessed 29th April 2016.   |  | | --- | | **The goggles with the nail polish in the centre of the eyepieces represent Macular Degeneration, as damage to the macula results in central vision loss.** | |