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## General Science Assignment

### ① Short Sightedness:

Introduction:

Short sightedness is a condition in which a person is unable to see the things clearly unless they are relatively close to eyes. Also be called as lack of imagination or foresight.

Definition:

Myopia also called short sightedness is a very common eye condition where you cannot see objects far away clearly.

⇒ It is also known as refractive errors. It leads to blurred distance vision, while close vision

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is usually maximal.

Causes:

Short sightedness occurs when light coming from distant objects is 'overfocused', so that the point of focus is in front of the retina. It occurs because the eyeball is too long or, less commonly, because the cornea is too curved.

⇒ Light coming from near objects requires a stronger focusing activity anyway, so in myopia light from near objects is more likely to focus on right place.

⇒ It is likely to be a

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combination of genes and lifestyle factors. It often runs in family. It can also occur with certain illness.

### Symptoms:

- ⇒ The main symptom is a difficulty with seeing things that are far away.
- ⇒ The earlier the short sightedness starts, the more severe it is likely to become. At early adulthood → it reached its peak level.

### Treatment:

Following are the treatment for short sightedness.

#### ① Glasses:

Short sightedness can be corrected with glasses. which is cheapest, safest and

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simplest way. Concave lenses can be used. As a result the light rays further focus back on the retina.

### ② Contact lenses:

These do the same job as glasses but they sit right on the surface of the eye. It tends to be more expensive than glasses.

### ③ Laser Eye Surgery:

It is also an option for shortsightedness. Complete and permanent resolution of the refractive error is possible in a number of people.

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## ② Long Sightedness:

### Introduction:

Long sightedness is a common eye condition that can be hard to detect. It makes close objects appear blurry, or you might be able to focus clearly but get tired eyes or headaches. For people with significant long-sightedness, vision can be blurry for things in the distance as well.

### Definition:

The medical name for long-sightedness is hypermetropia, sometimes called hyperopia. A condition in which distant objects are

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seen clearly but near objects appear blurred.

Causes:

The size and shape of the eye largely causes long-sightedness. If you are long-sightedness, the cornea is not sufficiently curved or the eye is too short, so the light rays from close objects focus behind, rather than on, the retina when the eye is resting.

⇒ In some cases, long sight is caused by other conditions such as diabetes, small eye syndrome, cancers around the eye and problems with the blood vessels in the retina.

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## Symptoms:

The main symptoms is difficulty with near vision. Tiring of the eyes is common and long-sighted people may have headaches and uncomfortable vision.

## Treatment:

Following are the treatment of long-sightedness

### ① Glasses:

The simplest, cheapest and safest way to correct long sight with glasses.

Convex lenses are used to bend light rays.

### ② Contact lenses:

They do the same job as glasses but they sit right on the

right surface of the eyes.

③ Laser Eye Surgery:

It is an option for some people with long sightedness. Complete and permanent resolution of the refractive error is possible in a number of people.

③ Colour Blindness:

If you have colour blindness, it means you see colours differently than most people. Most of the time, color vision deficiency makes it hard to tell the differences between certain colors.

Definition:

It is the decreased



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ability to see colors or to differentiate between colors.

⇒ Color blindness occurs when you are unable to see colors in a normal way. It is also known as color deficiency.

Causes:

Most people with color blindness are born with it.

This is called congenital condition. It is usually pass from mother to son.

⇒ Most color vision problems that occur later in life are a result of;

Disease, Trauma, Toxic effects from drugs, Metabolic Disease, or vascular Disease.

⇒ Color vision defects caused by disease usually gets worse over time.

### Symptoms:

The symptoms include.

- ⇒ Trouble of seeing colors and the brightness of colours in the usual way.
- Inability to tell the difference between shades of the same or similar colors. This happens most with red and green, or blue and yellow.
- ⇒ This case condition is often associated with:
  - ⇒ Amblyopia.
  - ⇒ Nystagmus
  - ⇒ Light sensitivity
  - ⇒ Poor vision.

## Treatment:

There is no cure for colour vision but that's deficiency passed down in families (inherited), but most people adjust to it.

⇒ If your colour vision deficiency is happening because of another problem, your doctor will treat the condition that's causing the problem.

## (4) Night Sightedness: Introduction:

Night blindness is a type of vision impairment also known as nyctalopia. People with

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night blindness experience  
poor vision at night  
or in dimly lit  
experience environment.

Definition:

Night blindness  
also called nyctalopia is  
your inability to see well  
at night or in poor light  
such as in a restaurant or  
movie theater.

⇒ It is often associated  
with an inability to quickly  
adapt from a well-illuminated  
to a poorly illuminated  
environment.

Causes:

Night blindness has  
many possible causes, including

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Myopia

- ② Glaucoma → medications that work by constricting the pupil.
- ③ Cataracts.
- ④ Diabetes.
- ⑤ Vitamin A deficiency.

### Symptoms:

The sole symptoms of night blindness is difficulty seeing in the dark. You are more likely to experience night blindness when your eyes transition from a bright environment to an area of low environment light. Such as when you leave a sunny sidewalk to enter a dimly lit restaurant.

## Treatment:

Treatment of the night blindness depend on the cause.

### ① Cataracts:

Clouded portion of your eyes lens are known as Cataracts.

→ It can be remove through surgery.

### ② Vitamin A-Deficiency:

If you have low level your doctors will recommend you vitamin supplement.

### ③ Genetic Condition:

It is not treatable. The gene does not respond to surgery or corrective lense.