

## YEAR 10 PHYSICS REVISION CHECKLIST. Summer Examination.

As you begin your revision, complete this honestly to help you see where your priorities should lie for your revision. The target is eventually to get all your ticks in the left hand column.

### Year 10: Light Revision Checklist.

I CAN:	☺	☹
I know that light carries energy from one place to another		
I know how we see things in terms of rays		
I know what "luminous" and "non-luminous" means		
I can describe the type of shadows formed from a point source		
I can describe the type of shadows formed from an extended source		
I know what "umbra" and "penumbra" mean		
I know the law of reflection		
I know what the following mean; "normal", "incident" and "reflected" and can label them on a ray diagram		
I know that light travels in straight lines		
I know that light is refracted by different amounts when it enters an object with a different optical density (e.g. air and glass)		
I can complete diagrams to show the direction of light as it passes through a glass block		
I know what "dispersion" is		
I know that white light is made up of different colours of light		
I can draw a diagram to show how white light can be dispersed		

## Year 10: Sound Revision Checklist.

At the end of this topic you should be able to:

I CAN:	☺	☹
I know sound waves are caused by vibrations.		
I know that sound does not travel through a vacuum.		
I know that sound waves travel fastest through solids.		
I know that sound waves travel at different speeds through different materials.		
I know that a reflected sound is called an echo.		
I can calculate the speed of sound using an echo.		
I can draw and label how a sound wave appears on the screen of a CRO.		
I know that a loud sound has a high amplitude and a quiet sound has a low amplitude.		
I know that a high pitched note has a high frequency.		
I can write down the meanings of the terms amplitude, pitch and frequency.		
I can write down the highest and lowest values of hearing range in a human.		
I can give reasons as to why someone's hearing may be damaged.		
I know that this damage can either be temporary or permanent.		
I can write down ways in which noise pollution can be reduced.		

## Year 10: The Earth and Beyond Revision Checklist.

At the end of this topic you should be able to:

I CAN:	Page reference in pupil notes	☺	☹
State a definition for each of the following; The Universe A Galaxy A star A constellation A Planet An Asteroid A Comet	4		
Know the Order of the Universe in terms of size	5		
State that the Earth does one complete rotation on its axis each day.	6		
State that on Earth a day takes 24 hours.	6		
Understand that as the Earth rotates any place on its surface will sometimes face the Sun (daytime) and other times face away into dark space (night time).	6		
Shade an area on the Earth corresponding to day light or darkness.	6		
State that a year is the time taken for the Earth to orbit the Sun.	9		
State that it takes $365\frac{1}{4}$ (one Year) for the Earth to orbit the Sun.	9		
Write down that each year has 4 seasons.	9		
Understand that the seasons are caused by the tilt of the Earth's axis.	9		
Label a diagram of the four seasons in the Northern Hemisphere.	10		
State that in Summer the northern hemisphere is tilted towards the sun.	9		
Write down that in Summer in the northern hemisphere the northern half of the Earth spends more time in sunlight than it does in darkness.	9		

I CAN:	Page reference	😊	☹️
State that in Winter the northern hemisphere is tilted away from the sun.	9		
Write down that in Winter in the Northern Hemisphere the northern half of the Earth spends more time in darkness than it does in sunlight.	9		
Understand that the Sun 'rises' in the East and 'sets' in the West.	10		
State that the Sun is higher in the sky in the Summer than in the Winter.	10		
Write down that the sun is highest in the sky at midday.	10		
State that shadows are longer in the winter than in the summer.	10		
Write down that the solar system consists of eight planets that orbit the Sun.	14		
Understand that the Sun is at the centre of our Solar System.	14		
State that the planets move in elliptical orbits (rugby ball shaped) around the Sun.	14		
Name the nine planets in order from the closest to furthest from the Sun.	14		
State that it takes 28 days for the Moon to orbit the Earth.	17		
State that it takes 3½ days to move from one phase to the next.	17		
State that we see the moon as it reflects the light from the Sun.	17		
Draw the eight phases of the moon.	17		
Understand that we cannot see the bright side of a new moon.	17		
Understand that we see all of a full moon.	17		
Write down that a waxing moon is a 'growing moon'.	17		
Write down that a waning moon is a 'shrinking' moon.	17		
State that the moon is a natural satellite of the Earth	18		
Write down three uses of satellites	18		
Give three reasons why space exploration outside our solar system is so difficult	25		

## Year 10: Electricity Revision Checklist.

At the end of this topic you should be able to:

I CAN:	☺	☹
Recall that insulating materials can be charged by friction and explain this in terms of electron transfer.		
Understand that positively charged objects have a deficiency of electrons and negatively charged objects have a surplus of electrons.		
Recall that objects carrying the same type of charge repel each other.		
Recall that objects carrying different types of charge attract each other.		
Describe a use and danger of electrostatic charge generated in everyday contexts.		
Define conductors and insulators.		
Explain that an electric current is the flow of electrons.		
Draw an arrow showing the direction of conventional current and know that electrons flow in the opposite direction.		
Draw and label standard circuit symbols.		
State that in a series circuit the current through each component is the same.		
State that in a series circuit the voltage of supply is equal to the sum of the voltages across the separate components.		
State that in a parallel circuit the total current into a junction is equal to the total current out of junction.		
State that in a parallel circuit the voltage across each branch is the same.		
Recall that insulating materials can be charged by friction and explain this in terms of electron transfer.		
Recall what resistance is and the purpose of a variable resistor in a circuit.		
Describe an experiment to obtain an IV graph for a metal wire		
Know which two features of a graph show that voltage is directly proportional to the current		
Recall and be able to use the equation $V = I R$		