Light and Sound (Physics)

Year 6, Autumn Term

You will be taught	***You should know***
that light travels in a straight line at a finite speed in a uniform medium	that **light** comes from a **luminous source** and travels in straight lines
that non-luminous objects are seen because light scattered from them enters the eye	know how to draw an arrow **from** the object **to** the eye to show how we see objects;
how light is reflected at plane surfaces	how **plane mirrors** alter the path of a ray of light; that the **angle of incidence** is equal to the angle of **reflection**; how this can be used to make a **periscope**
how light is refracted at the boundary between two different materials	that light changes direction when it reaches the boundary between two different materials and that this phenomenon is called **refraction**
that white light can be dispersed to give a range of colours	how a **prism disperses** white light and understand that a similar effect occurs naturally in a rainbow; I know the order of the colours of the rainbow and that this is called the **spectrum** (**ROYGIBV**)
that sound causes the eardrum to vibrate and that different people have different audible ranges	that sounds are made when an object vibrates
some effects of loud sounds on the ear [e.g. *temporary deafness]*	that loud sounds can cause temporary or permanent **damage** to hearing
that light can travel through a vacuum but sound cannot, and that light travels much faster than sound	that sound travels through solids, liquids and air, but not through a vacuum;
	that we see things from a distance before we hear them because **light travels very much faster than sound**

http://www.bbc.co.uk/schools/ks2bitesize/science/activities/changing_sounds.shtml

http://www.bbc.co.uk/schools/ks2bitesize/science/activities/see_things.shtml

http://www.bbc.co.uk/schools/ks2bitesize/science/activities/light_dark.shtml

http://www.bbc.co.uk/schools/ks2bitesize/science/activities/light_shadows.shtml

http://www.bbc.co.uk/schools/ks3bitesize/science/physics/light_intro.shtml

http://www.bbc.co.uk/schools/ks3bitesize/science/physics/sound_intro.shtml