Subject: Science		
KS3 (Part 2)	Teacher: Mr Brooks	Term: 5 (9T5P1)
Key Vocabulary: Amplitude, frequency, wavelength, rarefaction, compression, oscillation, transverse, longitudinal, vibration, waves, supersonic, compression, oscilloscopes, pinna, eardrum, ossicles, cochlea, auditory nerve, decibels	**Alternative Learning Environments** (eg FREE forest school, field, playground, park, woods, English Heritage, shop, swallow aquatics, garden centre, Rochester Museum): Playground, music room, forest school	**Resources:** Power points, IWB, WS, graph paper, colouring pencils, pens, rulers, instruments, slinky, sports balls

Unit Aim: To explore and learn about light

Week	Session 1	Session 2	Session 3
1 Waves	**Lesson Objective** To understand the different types of waves **Activities** Looking at: pendulum swing, stone skimming, ball throwing, torch activities, bicycle peddling	**Lesson Objective** To learn about the wave features **Activities** Slinky demonstrations, Mexican waves, drum playing, guitar playing	**Lesson Objective** To begin to learn about the features of sound waves **Activities** Key word matching, drawing diagrams, investigation write up
2 Sound and Energy	**Lesson Objective** To learn about how vibration creates sound **Activities** Vibration demonstrations	**Lesson Objective** To learn where does sound travel the fastest **Activities** Demonstrating sound travelling through: solids, liquids and gases	**Lesson Objective** To learn about how fast sound travels **Activities** Board activities, physical activities

3 Loudness and Pitch	**Lesson Objective** To learn about how a sound has volume **Activities** Drawing and labelling different waves/air particle vibrations,	**Lesson Objective** To learn the difference between volume and pitch **Activities** Discovering oscilloscopes, ruler sound activity	**Lesson Objective** To differentiation the sounds waves between loudness and pitch **Activities** Comparing loudness and pitch. Listening exercises to differentiate
4 Detecting Sound	**Lesson Objective** To learn about the different parts of the ear **Activities** Looking at and labelling the ear drum	**Lesson Objective** To learn how ears work **Activities** Instrument activities, mix and match activities	**Lesson Objective** To learn about how sound travels from the source to the brain **Activities** Hearing “tests”, discuss different sounds/pitch for different animals
5 Echoes and Ultrasounds	**Lesson Objective** To learn how echoes work **Activities** Drawing activities including demonstrations and charts, ordering activity	**Lesson Objective** To learn about ultrasounds **Activities** Research ultrasound	**Lesson Objective** To understand the uses of echoes and ultrasounds **Activities** Diagram drawing, calculating the speed of sound/echoes, detecting sounds activity