Court Lane Junior Academy Long Term Map **Subject: Science** Science Enquiry/skills **Vocabulary that is repeated** Science Careers Hyperlinked

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	**Rocks and soils** Paleaontologist – Dr Emma Nicholls Identifying and Classifying Rock Grain Crystals Layers Texture Absorbs Marble Chalk Soil Sedimentary Igneous Metamorphic ***Fossil*** ***Minerals***	**Animals Including Humans** Polar Scientist – Prem Singh Gill Research Nutrition Carbohydrates Sugar Protein Vitamins Fibre Fat Skeleton Muscles Joints Protect Support Spine Skull ***Minerals***	**Light** Microscopist – Professor Robert Pal Comparative Fair Testing Light source Dark Surface Shadow Reflect Mirror Dangerous ***Light*** ***Sun*** ***Sunlight***	**Plants** Ecological Entomologist – Ben Woodcock Observation over time **Assessment Focus** Can children observe closely? Can children identify parts of a flowering plant? Pollination Seed formation Seed dispersal Nutrients Transport Male Female Leaves Petal Stem Pollen Seed Root ***Producers*** ***Reproduction***	**Forces and Magnets** Mechanical Engineer – Rafsan Chowdhury (Science Exhibition children to create a game) Pattern Seeking Does the size and shape of a magnet affect how strong it is? Push Pull Magnetic Strength Attract Repel North pole South pole Material ***Force***	**STEM** Science Illustrator – Vicky Bowskill Venn diagram Bar chart Fair test Variable Conclusion Thermometer Measure accurate
Year 4	**Electricity** Battery Researcher – Nicole Melzack Pattern Seeking What happens when you add/remove batteries/lamps as part of an electrical circuit? Electricity Mains Electrical circuit Complete Positive Negative Connect Buzzer Motor Switch Conductor Insulator Bulb Wire Plug ***Cell*** Battery	**Properties and changing State of materials** Innovation Engineer – Erusa Adizie Comparative Fair Testing Solid Liquid Gas Heating Cooling Freeze Melt Boil Condensation Precipitation Temperature Water cycle ***Changing state*** ***Evaporation***	**Working Scientifically skills** Diagram Thermometer Measure Accurate Venn diagram Bar chart Line graph Fair test Dependent variable Independent variable Conclusion	**Animals Including Humans** Applications Scientist – Dr Yogesh Kumar Observation over time And Comparative Fair testing Stomach Anus Small intestine Large intestine Incisor Canine Molar Premolar Teeth Digest Digestive ***system*** Food chain ***Herbivore*** ***Carnivore*** ***Omnivore*** ***Producer***	**Living Things and their Habitat** Veterinary Surgeon – Danielle Dos Santos Identifying and Classifying Recording accurately Interpreting results Presenting Data Classification Habitat Environment Hibernate Predator Prey **Fish** **Amphibian** **Reptile** **Bird** **Mammal** ***Herbivore*** ***Carnivore*** ***Omnivore*** ***Producer***	**Sound** Designer – Dr Javier Pereda Pattern Seeking Assessment Focus: Can children suggest how to alter the pitch? Can children carry out simple tests of these ideas? Science Exhibition- Instrument Sound Source Vibrate Travel Pitch Volume Insulation

Year 5 Forest School All Year	**Living Things and Their Habitats** Marine Biologist – Dawood Qureshi Observation Over time Life cycle Fertilises Asexual reproduction Runners Tubers Cuttings Metamorphosis Sexual reproduction Genetically identical ***Reproduce***	**Space** Astrophysicist – Haley Gomez (Science Exhibition 11/12/24) Research Moon Spherical Solar system Rotate Orbit Star Mercury Venus Mars Jupiter Saturn Uranus Neptune ***Earth*** ***Sun***	**Properties and Changes in Materials** Water Scientist – Zoe Ayres Comparative Fair Testing Thermal insulator Thermal conductor Mixture Dissolve Solution Soluble Insoluble Filter Reversible Irreversible Rust New material ***Changing state*** ***Evaporate***	**Forces** Civil Engineer – Jyoti Sehdev Pattern Seeking Assessment Focus: Observing and measuring and planning enquires Gravity Air resistance Water resistance Friction Issac Newton ***Earth*** ***Force***	**Animals including humans** Epigenetics Research Assistant – Laura Benson Pattern Seeking Puberty Child Foetus Adolescent Adult Period ***Reproduce*** ***Sexual*** ***Fertilisation*** ***Cell*** (Check PSHE/RSE policy)
Year 6	**Evolution and Inheritance** Evolutionary Biologist – Dr Kelsey Byers Pattern Seeking Is there a pattern between the size and shape of a bird's beak and the food it will eat? Offspring Characteristics Adapted Inherited Species Evolve Evolution ***Sexual reproduction***	**Animals including Humans** Animal Behavioural Neuroscientist – Dr Jo Montgomery Comparative Fair Testing (Science Exhibition 4/12/24) Heart Dissection Heart Pulse rate Blood vessels Transported Lungs Oxygen ***Carbon Dioxide*** Circulatory system Diet Health	**Light** Laser Physics – Prof. Colin Webb Research Straight lines Light rays Reflect Light source refract	**Electricity** Artificial Intelligence Researcher – Krishna Mooroogen Comparative Fair Testing Assessment Focus:Plan a scientific enquiry to answer a question, recognising and controlling variables. Series Circuit diagram Circuit symbol Voltage Brightness Components **Electricity** **Mains** **Electrical circuit** **Complete** **Positive** **Negative** **Connect** **Buzzer** **Motor** **Switch** **Conductor** **Insulator** **Bulb** **Wire** **Plug** ***Cell*** **Battery**	**Living things and their habitats.** Atmospheric Chemist – Rabi Chhantyal-Pun Identifying and Classifying Assessment Micro-organisms Vertebrates Invertebrates **Fish** **Amphibian** **Reptile** **Bird** **Mammal** Cold blooded Warm blooded Insects SATS