STEM Scholarship – Programme Overview

Year 1 – Foundation and Development	Year 2 – Leadership and Performance
Workshops:	
Introduction & Safety • Introduction to STEM through motorsport and karting • Workshop safety and tool handling (school workshop focus) • Understanding basic kart components (chassis, wheels, steering) **Design & Planning** • Simple technical drawings and planning builds • Measuring and marking materials (wood/metal depending on school facilities) • Team roles in engineering projects **Early Construction** • Building basic chassis frames using available school tools • Fixings, joining techniques, and structural strength • Testing stability and durability (playground/school space testing)	**Advanced Build & Systems** • Refining designs for efficiency and performance • Building steering systems, axles, and wheel alignment • Introducing simple mechanical or pedal-powered systems (realistic to school setting) **Testing & Improvement** • Trial runs in controlled local environments (school grounds / local safe routes) • Identifying faults and improving design • Recording data (speed, distance, stability) **Final Build & Showcase** • Completing full kart builds • Preparing for final display, race, or showcase event • Student presentations explaining design decisions
Educational Visits and Career Engagement:	
• Visit to local garages or mechanics (Bexhill, Hastings, Eastbourne area) • Guest speakers from local trades (mechanics, engineers, construction) • Introduction to practical engineering careers and apprenticeships • Potential visit to Hastings, Eastbourne or local colleges with engineering workshops	• Visit to regional STEM providers (e.g. East Sussex College engineering facilities) • Trip to nearby motorsport or engineering venues (e.g. Goodwood, Brands Hatch) • Employer engagement with local businesses (fabrication, transport, engineering firms along coast) • Careers focus on post-16 STEM pathways (college, apprenticeships
Extra-curricular:	
• After-school "Kart Build Club" using school workshop • Small team challenges (design mini prototype karts) • STEM journaling (recording build progress) • Participation in low-cost/local competitions or school showcases	• Student-led kart build teams • Leadership roles within club (team leads, safety leads) • Final race day or public showcase (school/community event) • Mentoring younger students in Year 7/8 builds