Year group 8	**Subject: Flight & Biomimicry**
National curriculum	**DT Design S 79.04** : use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses **DT Tech Knowledge S 79.01** : understand and use the properties of materials and the performance of structural elements to achieve functioning solutions
Rationale	Building on the use of nature as an inspiration for design in Year 7, students will investigate biomimicry as a design strategy. This is built on again in the Year 9 Creativity and communication course. Paper aeroplanes are an engaging way of introducing students to biomimicry and aerodynamics, and relate to real life experiences.
Vocabulary:	**Keywords -** Biomimicry, Aerodynamics, Streamline, Drag, Lift, Thrust, Draft
Cultural Capital:	Knowing that there are methods that we can use to help us come up with original ideas. Understanding aerodynamics and how it can reduce energy (making vehicles more sustainable) and make moving products more efficient. Understanding of how planes fly, how boats stay straight, why fast cars need rear spoilers.
Key assessments- name the assessments	Assessment grid of tasks to show achievement and progress across the module. Competition for distance of planes in flight.
What do children know/ can do now (EDSM)	Students can give examples of how nature has inspired engineering solutions. They can define aerodynamics and can explain how to make products streamlined or more aerodynamic.