

Design Technology Year 2 Spring 2022				
Threshold concepts: Vehicles				
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Outcomes: Pupils will design, evaluate, practise skills, evaluate, make and evaluate to complete a moving vehicle				
Session	Breadth	Milepost	Teaching	POP Tasks
Week 1	Purpose Evaluate existing products make a range of designs/evaluate Final design and instructions Make Evaluate	To design, make, evaluate and improve <i>Design products that have a clear purpose and an intended user.</i> To take inspiration from design throughout history <i>Explore objects and designs to identify likes and dislikes of the designs. Suggest improvements to existing designs. Explore how products have been created.</i>	Share pictures of different moving vehicles through history. Discuss the vehicles. Ask pupils for their opinion of the vehicles. Who is the intended user of the vehicle / how many people could fit in the vehicle etc. How is the vehicle powered? Look at and examine a range of toy cars. Complete an evaluation of the cars.	SI - can I label vehicle parts?
				DI -Can I identify the purpose of different vehicles?
				UI - Can I identify how cars have been adapted for purpose?
				OI-Can I evaluate vehicles and rate them?

Week 3	Practise skills/test out techniques / evaluate	Electricals and electronics Diagnose faults in battery operated devices (such as low battery, water damage or battery terminal damage).	Using electrical equipment, can we put the equipment together to make a bulb light up? Look at circuits created by the 'toys' next - why won't they work? See if children can spot and fix the faults in picture circuits. Look at pictures of electrical vehicles that have got damage to the circuit e.g. leaking batteries, water damage, broken wire etc.	SEN - Can I make a bulb in a circuit light up?
				Doing it - Can I make a bulb in a circuit light up?
				Using it - Can I make a circuit and spot faults in a circuit?
				Owning it - Can I make a circuit and explain the common faults found in electrical toys?
Week 5	Design	. To design, make, evaluate and improve Design products that have a clear purpose and an intended user. Use software to design Computing	Use Lego WeDo Teacher model the mechanism to make a moving vehicle basic. Using inspiration from the vehicles we have seen design the 'motorisation' and outer design of a vehicle.	SEN- follow instructions to make a mechanism with support. Design a vehicle
				Doing it - follow instructions to make a vehicle with support.
				Using it - follow instructions to make a vehicle with some independence.

		Model designs using software.		
Week 7	Make	To design, make, evaluate and improve Make products, refining the design as work progresses Mechanics Create products using levers, wheels and winding mechanisms	Make the vehicles	SEN - Make vehicle with support Doing it - make vehicle with support Using it - make a vehicle with adaptations Owning it - explain adaptations to the standard vehicle
Week 9	Evaluate	To design, make, evaluate and improve Make products, refining the design as work progresses.	Evaluate making process and vehicle	SEN - complete sentences to evaluate -cloze procedure Doing it - Evaluate and say how they may adapt plans next time Using it - Evaluate the processes of making the vehicle