Year 2 DT Project (Making a car for a character)

What I should know.

- Assembled vehicles with moving wheels using construction kits.
- Explore moving vehicles through play.
- Gained some experience of designing, making and evaluating products for a specified user and purpose.
- Developed some cutting, joining and finishing skills with card.

Knowledge

Design

Understand a product needs to visually appeal.
Know why wheels are round.
Understand how a car uses an axle

Making

How to cut with a degree of accuracy

Evaluate

An evaluation describes good and bad features of a project

Vocabulary

vehicle, wheel, axle, axle holder, chassis, body, cab

assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism

names of tools, equipment and materials used

design, make, evaluate, purpose, user, criteria, functional

DT Skills

Designing
- Generate initial ideas and simple design criteria through talking and using own experiences.
- Develop and communicate ideas through drawings and mock-ups.

Making
- Select from and use a range of tools and equipment to perform practical tasks such as cutting and joining to allow movement and finishing.
- Select from and use a range of materials and components such as paper, card, plastic and wood according to their characteristics.

Evaluating
- Explore and evaluate a range of products with wheels and axles.
- Evaluate their ideas throughout and their products against original criteria.

Technical knowledge and understanding
- Explore and use wheels, axles and axle holders.
- Distinguish between fixed and freely moving axles.
- Know and use technical vocabulary relevant to the project.

Working Toward Expected	Expected Standard	Exceeding Expected Standard
Processes Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing.	**Processes** Chooses appropriate tools, equipment, techniques and materials from a wide range.	**Processes** Use knowledge of existing products to design his/her own functional product
Processes Use a range of simple tools to cut, join and combine materials and components safely.	**Processes** Safely measure, mark out, cut and shape materials and components using a range of tools.	**Processes** Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes
Processes Ask simple questions about existing products and those that he/she has made.	**Processes** Evaluate and assess existing products and those that he/she has made using a design criteria.	**Processes** Safely measure, mark out, cut, assemble and join with some accuracy
Processes Build structures exploring how they can be made stronger, stiffer and more stable.	**Processes** Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable.	**Processes** Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them
Processes Use wheels and axles in a product	**Processes** Explore and use mechanisms eg levers, sliders, wheels and axles.	**Processes** Investigate and analyse existing products and those he/she has made, considering a wide range of factors