

ASSESSING STUDENT PROGRESS IN DESIGN & TECHNOLOGY

| | Starting Line | Accelerating | High Speed | RECORD BREAKING! |
|---|--|--|---|--|
| Designing: Understanding contexts, users and purposes | <ul style="list-style-type: none"> Can discuss important rules and constraints including issues of H&S Can identify key design factors and create a detailed specification | <ul style="list-style-type: none"> Can discuss implications of rules and constraints Can conduct basic research and begin to use this to inform design criteria | <ul style="list-style-type: none"> Can carry out independent research to identify potential problem and design areas Can develop a detailed specification to guide ideas | <ul style="list-style-type: none"> Can use books, web and other resources to explore principles of vehicle design Can develop clear specifications & testable design criteria |
| Designing: Generating, developing, modelling and communicating ideas | <ul style="list-style-type: none"> Can discuss their ideas and engage in debate around resources and tools Can produce basic design sketches | <ul style="list-style-type: none"> Can generate and present realistic ideas independently Can use sketches and diagrams to illustrate ideas | <ul style="list-style-type: none"> Can show links between research and their ideas Can produce detailed annotated 2D drawings & designs | <ul style="list-style-type: none"> Can develop well researched, innovative ideas Can produce comprehensive designs using ICT and 3D where appropriate |
| Making: Planning | <ul style="list-style-type: none"> Can list tools and resources that they may need when asked Can describe properties of different materials and how they might be worked | <ul style="list-style-type: none"> Can take account of and list availability of tools and resources in plans Can explain their tool and material choices | <ul style="list-style-type: none"> Can make and order design decisions based on resource and time availability Can break their plan of work down into stages | <ul style="list-style-type: none"> Can show detailed ways to test and validate decisions in their plans Can formulate step by step plans as a guide to making |
| Making: Practical Skills and Techniques | <ul style="list-style-type: none"> Can follow key rules for health and safety Can make reasonably accurate cuts and joins with teacher help for more complex tasks | <ul style="list-style-type: none"> Can consistently follow H&S procedures Can independently measure, mark, cut and join with increasing accuracy | <ul style="list-style-type: none"> Can work safely at all times and monitor safety of team members Can mark, cut and join materials with a high degree of precision | <ul style="list-style-type: none"> Can work safely and with a high degree of precision through multiple build stages Can make and use jigs, templates and other construction aids |
| Evaluating: Own ideas and products | <ul style="list-style-type: none"> Can talk about what they are making and the impact of various features Can judge good and bad points | <ul style="list-style-type: none"> Can identify strengths and weaknesses and areas for improvement in discussion Refers to original design criteria when testing | <ul style="list-style-type: none"> Can clearly identify where improvements can be made Can devise tests to confirm if criteria are met Can suggest and make basic improvements | <ul style="list-style-type: none"> Uses testing and prototypes to refine ideas and develop or update specifications Can critically evaluate designs & commits to making improvements |
| Evaluating: Making products work | <ul style="list-style-type: none"> Can discuss key science ideas such as air resistance and mass and begin to express how they may impact designs | <ul style="list-style-type: none"> Can express how Science ideas such as air resistance and mass of objects directly influence the performance of their designs | <ul style="list-style-type: none"> Can makes clear reference to Science ideas in design phases Can gather testing data and use this to help make informed improvements and predictions | <ul style="list-style-type: none"> Can clearly express how a variety of Science ideas are involved in their designs Makes regular use of data and ICT to evaluate and improve their products |