

YEAR 7 DESIGN STUDENT KNOWLEDGE ASSESSMENT GRID

FOUNDATION

Is able to follow the health and safety rules within the workshop environment with some support if needed.

Can understand the concept of a design brief and is able to suggest some basic ideas that loosely link to the brief.

With support is able to write a simple specification for a product breaking it down into specific areas

Can sketch 2-3 simple ideas with little creativity and some repetition. Not all ideas link to the design brief.

Design sketches are basic with simple communication.

Design thinking is explained with brief notes and few opinions.

Can model some design sketches effectively using the model to help solve simple design problems

Can use 2D Cad with some support to draw simple shapes for laser cutting

Needs support and reminders to photograph and stick in photos of models. Some labelling of photos.

Is able to use hand tools with some support following practice to safely produce a mostly complete or basic product.

Understands with support how to achieve a good finish on timbers and polymers.

Is able to follow simple instructions to be able to manufacture a product in time for a deadline with support.

YEAR 7 DESIGN STUDENT **KNOWLEDGE** ASSESSMENT GRID

INTERMEDIATE

Understand the health and safety rules within the workshop environment and be able to explain why they are required.

Can understand the concept of a design context and design brief and is able to suggest ideas that link to the brief based upon this.

Is able to write a simple specification for a product breaking it down into specific areas

Can sketch 3-4 ideas with some creativity to design a solution clearly linked to the design brief.

Design sketches are simply communicated.

Design thinking is explained with brief explanations and some opinions.

Can model design sketches effectively using the model to help solve design problems

Can use 2D CAD to draw their design for laser cutting.

Is able to record design decisions through sketches, photos of models and screenshots of CAD work. This evidence is explained.

Is able to use hand tools with some accuracy following practice to safely produce a completed product of reasonable quality.

Understands and can demonstrate how to achieve a good finish on timbers and polymers.

Is able to follow a given plan to be able to manufacture a product in time for a deadline.

YEAR 7 DESIGN STUDENT **KNOWLEDGE** ASSESSMENT GRID

HIGHER

Fully appreciates the health and safety rules within the workshop environment and is able to explain confidently why they are required.

Can understand the concept of a design context and design brief and is able to suggest a good range of ideas linking to the brief based upon this.

Is able to write a specification for a product breaking it down into specific areas with some justification.

Can sketch 3-4 simple ideas with a good level of creativity to design a solution clearly linked to the design brief.

Design sketches are clearly communicated and well explained.

There are good annotations with opinions and evaluations. They may have sought the opinions of others.

Can model design sketches effectively using the model to help solve design problems with some iteration.

Can use 2D CAD independently after a demonstration to sketch their design, refining if needed.

Is able to record design decisions through sketches, photos of models and screenshots of CAD work independently as the unit progresses. Work is well annotated with perceptive reflections and evaluations.

Is able to use hand tools with a good level of accuracy following practice to safely produce a completed product of good quality.

Understands and can demonstrate how to achieve a good finish on timbers and polymers.

Is able to follow their own plan to be able to manufacture a product in time for a deadline.

Fully understands the different groups of timbers and polymers, and can give examples and some specific properties for different materials in each group.

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EXCEPTIONAL

Fully appreciates the health and safety rules within the workshop environment and is able to confidently explain the hazards and risks presented.

Can understand the concept of a design context and design brief and is able to suggest a wide range of ideas linking to the brief and intended user based upon this.

Is able to write a detailed and measurable specification for a product independently breaking it down into specific areas with justifications.

Can sketch 3-4 ideas linked to the brief with a very good level of creativity and some innovation.

Design sketches are clearly communicated and thoroughly explained.

There are very good annotations with opinions and evaluations. The opinions of others have been sought and have influenced the designs.

Is able to use card models of sketches as part of an iterative process to refine and develop a design.

Can use 2D CAD independently after a demonstration to sketch their design, refining and improving.

Is able to record design decisions through sketches, photos of models and screenshots of CAD work independently as the unit progresses. Work is well annotated with perceptive reflections and evaluations. Photos may be sketched upon and developed further to improve communication.

Is able to use hand tools with precision following practice to safely produce a completed product of excellent quality.

Understands and can demonstrate how to achieve a good finish on timbers and polymers.

Is able to follow their own plan to be able to manufacture a product independently in time for a deadline.

Fully understands the different groups of timbers and polymers, and can give examples and specific properties for different materials for each group.

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