Depth of Understanding Grade Descriptors for Year 7 D&T Tangram project work

Task	Details /activities	No work	Grades 1-2	Grade 3	Grades 4-5	Grades 6-7	Grades 8-9					
Knowledge, understanding and Evaluating	 Tangram research homework Toy safety worksheets Symbols worksheet Health & Safety worksheets Evaluation of final outcomes 		Basic descriptions, showing limited knowledge, with no explanations. No or little evaluation. No or little reflective practice.	Descriptions are brief. Limited information has been gathered and few explanations are offered. Limited evaluation. Basic reflections on designs and making.	Descriptions are moderately detailed. Some information has been gathered and some explanations are offered. Evaluation considers the successes and limitations of designs and making.	Detailed descriptions. Research is original. Explanations are given in full sentences. Evaluation considers the successes and limitations of designs and making. Reflective practice is evident.	Comprehensive research and descriptive work. Explanations are reflective and justified. Justified evaluations consider the successes and limitations of designs and making. Reflective practice in light of own and other's opinions.					
Designing & communicating ideas	 Formal 2d tangram drawing, using specialist equipment. Design ideas for lid /packaging clearly annotated Design for puzzle and pattern CAD work for packaging net 		One idea drawn with basic or no detail or explanation. CAD and technical drawing work is basic and largely inaccurate.	One or two different ideas drawn with limited detail and explanation. CAD and technical drawing work demonstrate limited skill and accuracy.	One or two different ideas drawn with adequate detail and explanation. CAD and technical drawing work demonstrate some skill and accuracy.	Two ideas with annotation drawn. One idea may show development. CAD and technical drawing work demonstrate a good level of skill and accuracy.	Two or more ideas with annotation drawn. Ideas may show development. CAD and technical drawing work demonstrate a high level of skill and accuracy.					
Planning, Making & Prototyping design	 Quality and accuracy of making for wooden box Quality of finish for wooden box Quality of finish of shapes Quality and accuracy of cutting, scoring folding and assembly of card box lid Quality and accuracy of 		Practical work demonstrates basic skill, using appropriate tools and machinery. Quality and accuracy could be improved upon. The final outcome is incomplete	Practical work demonstrates developing skills, using appropriate tools and machinery. Quality and accuracy is inconsistent yet improving.	Practical work demonstrates adequate or good skills, using appropriate tools and machinery. Quality and accuracy is inconsistent yet largely good.	Practical work demonstrates a high level of skill, using appropriate tools and machinery. Quality and accuracy is good and of a high standard.	Practical work demonstrates a very high level of skill, using appropriate tools and machinery. Quality and accuracy is of a high standard and close tolerances have been achieved.					
Final P Assessment	accuracy of making a puzzle Image: Comparison of the com											

Depth of Understanding	KEY ASSESSMENT POINTS:	GRADE 1-2	\checkmark	GRADE 3	
Grade Descriptors Year 7 D&T Graphics Cereal Packaging Project	 Knowledge, Understanding and Evaluating: Brainstorm/mood board Product Analysis Typography analysis Evaluation 	 Knowledge, Understanding and Evaluating: I have made some decisions about the situation and my target market, but with little or no explanation about suitability. I talk about and reflect upon my ideas with others. I can describe what I like and dislike. 		 Knowledge, Understanding and Evaluating: I have studied an existing product. I have mind-mapped some ideas about the situation. I have collected some research and visual inspiration. I reflect upon and/or review some ideas. I evaluate some aspects of my work. I can record feedback from others. 	
	 Designing and Communicating: Character development Typography development Free gift development 	 Designing and Communicating: I have produced limited ideas for some aspects of the brief and specification. 		 Designing and Communicating: I have produced some ideas for most aspects of the brief and specification. My ideas show limited development. 	
	 Prototyping, Planning and Making: Final Design Assembled cereal package 	 Prototyping, Planning and Making: My final designs are presented for the client, demonstrating a basic level of skill. 		 Prototyping, Planning and Making: My final designs are effective and well presented, demonstrating developing skills. 	
	GRADE 4-5	GRADE 6-7		GRADE 8-9	
	 Knowledge, Understanding and Evaluating: I have carried out a product analysis. I can make reference to my target market. I have justified some of my thoughts well. I have carried out relevant research, which includes images. I reflect upon my ideas and review them appropriately. I evaluate most aspects of my work and suggest improvements. I can draw on feedback from others. 	 Knowledge, Understanding and Evaluating: I have carried out a detailed product analysis. I can mind-map ideas linked to my target market. I have justified my thoughts well. I have carried out relevant research and collected relevant visual inspiration. I reflect upon my ideas and review in light of changes. I evaluate aspects of positive and negative in my work and suggest improvements. I can draw upon feedback from others. 		 Knowledge, Understanding and Evaluating: I have carried out a detailed product analysis, describing aspects related to aesthetics, function and sustainability I can mind-map ideas , which are highly appropriate for my target market, with justification showing good awareness of their wants and needs. I have carried out pertinent research and collected a range of visual inspiration. I reflect upon my ideas in detail and regularly review in light of changes. I evaluate aspects of positive and negative in my work and suggest improvements. I can draw upon feedback from others. I can justify my evaluations. 	
	 Designing and Communicating: I have produced a range of ideas for all aspects of the brief and specification and annotated my choices. My ideas show some development. 	 Designing and Communicating: I have produced a range of good ideas for all aspects of the brief and specification and explained my choices. My ideas show development. 		 Designing and Communicating: I have produced a wide range of creative and effective ideas. I have developed every aspect of the brief and specification to ensure that my packaging is fit for purpose. This is made clear in my annotation. My ideas show detailed development. 	
	 Prototyping, Planning and Making: My final designs are effective and show some development from my initial ideas. My final prototype is produced to a good quality, demonstrating a good level of skill. 	 Prototyping, Planning and Making: My final designs are effective and show good development from my initial ideas. I have drawn upon some inspiration. My final prototype is produced to a high quality, demonstrating a high level of skill. 		 Prototyping, Planning and Making: My final designs are effective and original and show significant development from my initial ideas. I have drawn upon and used inspiration. My final prototype is produced to a very high quality, demonstrating an excellent level of skill. 	

Depth of Understanding Grade Descriptors for Year 8 D&T Moodlight project work

Task	Details /activities	/	GRADE 1-2	GRADE 3	GRADE 4-5	GRADE 6-7	GRADE 8-9
ating	 Research & Mood- board Knowledge of 		•I have looked at existing designs on the internet	•I have collected some research and drawn upon	 I have collected some research and written 	•I have collected research and written detailed	 I have carried out pertinent research and written detailed
Knowledge, understanding and Evaluating	Components Risk Assessment Knowledge of materials & processes Evaluation of work influenced by design eras Reviewing and annotation throughout Final Evaluation		and visual inspiration provided for me. •I can name 1-2 components •I know how to solder safely •I can say what is good or not so good about my work.	visual inspiration provided for me. • I can name some key components • I can solder safely • I can evaluate some aspects of my work.	descriptions • I have drawn upon my own visual inspiration, as well as that provided for me. • I can describe the function of some components • I can describe how to solder safely • I reflect upon ideas. I evaluate some aspects of my work.	descriptions. • I can describe how my designs are influenced by visual inspiration • I can describe the function of key components • I can describe how to solder safely and have completed a risk assessment • I reflect well upon ideas. I evaluate my work well.	descriptive analysis. • I can describe how my designs are clearly influenced by visual inspiration • I can describe the function of key components • I can describe how to solder safely and have completed a risk assessment. • I reflect thoroughly upon ideas. I evaluate my work in detail.
Designing & communicating ideas	 Ideas development CAD development Using inspiration to inform ideas Designs in the mode of Art Deco and/or Art Nouveau Written and visual methods of communication, including annotation 		•I have produced one idea using basic sketching techniques and/or CAD.	 I have produced one or two ideas using basic sketching techniques and/or CAD. An idea loosely draws upon visual inspiration. 	 I have produced some ideas through sketches and CAD Some ideas draw upon visual inspiration and a design era. My sketches are labelled or annotated. 	 I have produced a range of sketches and CAD to communicate ideas effectively. My ideas clearly draw upon visual inspiration and design eras. My sketches are well annotated. 	 I have produced a wide range of creative ideas. I have used a range of sketching, visual presentation techniques and CAD to communicate ideas effectively. My ideas clearly draw upon visual inspiration and design eras. They show development. My sketches are well annotated in detail.
Planning, Making & Prototyping design	 Final Working prototype Demonstrate competence using a range of skills, including CAD, soldering, vacuum forming, cutting, drilling and shaping materials Quality of making Safe working practice Orthographic projection drawing (extension task) 		 My final prototype demonstrates a basic level of skills, quality and accuracy. My final moodlight is not fully working and is wholly incomplete. I show some regard for safety when using soldering irons, tools, equipment & machinery. My planning is basic, yet I have followed some instructions. 	 My final prototype demonstrates developing skills, quality and accuracy. My final moodlight is not fully working or is partially incomplete. I show some understanding of safety when using soldering irons, tools, equipment and machinery. My planning is fairly basic, yet I have followed instructions. 	 My final prototype demonstrates a moderate level of skills, quality and accuracy. My final moodlight is fully working. I mostly work independently and demonstrate a regard for safety when using soldering irons, tools, equipment and machinery. I can work to my own and given plans when making the prototype. 	 My final prototype demonstrates a good level of skills, quality and accuracy. My final moodlight is fully working, assembled and complete. I work independently and demonstrate a high regard for safety when using soldering irons, tools, equipment and machinery. I can work to my own detailed plans and given plans to make the prototype. 	 My final prototype demonstrates a high level of skills, quality and accuracy. My final moodlight is fully working, assembled and complete. I work well independently and demonstrate a very high regard for safety when using soldering irons, tools, equipment and machinery. I have created and follow my own detailed plans, as well as interpreting existing plans, to aid the production of my prototype.
Final Assessment	Knowledge, Unde Designing & Comr Planning, modellin Overall Grade	nur	nicating	ng			

KEY ASSESSMENT POINTS:	GRADE 1-2	\checkmark	GRADE 3	
 Knowledge, Understanding & Evaluating: Inclusive Design Challenges Mindmap & Research Evaluation DOT Project Task Analysis Demonstration of the Iterative Design Process 	Knowledge, Understanding & Evaluating: Inclusive Design Challenges : Limited Information researched with no detail or explanation. DOT Project : I can discuss and recognise my own needs and can demonstrate the needs of others. No or little Evaluation.		Knowledge, Understanding & Evaluating: Inclusive Design Challenges : Some Information researched with little explanation. DOT Project : I understand my own needs and can consider the needs of another when drawing my ideas. Limited Evaluation making basic statements.	
Designing and Communicating: Inclusive Design Challenges • Design Ideas Sketches • Design Annotations DOT Project • Design Ideas • Design Development	Designing and Communicating: Inclusive Design Challenges : One Idea with limited detail. DOT Project : I have started to identify gaps in my design and can act on 1 or 2 iterations of these. I have explored the needs of one client and have acted on some feedback.		Designing and Communicating: Inclusive Design Challenges : One or more Idea(s) with basic detail and explanation. DOT Project : I have identified gaps in my design and can act on 1 or 2 iterations of these. I have explored the needs of one client. I can listen to others and act on some feedback.	
Prototyping, Planning and Making: Inclusive Design Challenges • Models & Prototypes DOT Project • Models & Prototypes • Final Design Idea Presentation	Prototyping, Planning and Making: Inclusive Design Challenges : Simple Models or development Drawings produced with limited detail to demonstrate basic Skill. DOT Project : I have 1 prototype that has been made through an iterative process. I have identified at least one gap based on evaluation and tried to improve my design.		Prototyping, Planning and Making: Inclusive Design Challenges : Some Models or Development Drawings with limited detail demonstrate some skill and quality. DOT Project : I have 1 or 2 prototypes that have been made through an iterative process. I have identified 1 or 2 gaps based on evaluation and tried to improve my design.	
GRADE 4-5	GRADE 6-7	<	GRADE 8-9	
Knowledge, Understanding & Evaluating: Inclusive Design Challenges : Some Information researched with little explanation. DOT Project : I have started to recognise the needs of others. I can explore the needs of 2 users whilst drawing my ideas.	Knowledge, Understanding & Evaluating: Inclusive Design Challenges : A range of Information researched with most explained. DOT Project : I recognise the needs of others. I can explore the needs of 2 or more users whilst drawing my ideas. Evaluation considers the successes and limitations of the design.		Knowledge, Understanding & Evaluating: Inclusive Design Challenges : Detailed range of Information researched demonstrating analysis of problems. DOT Project : I recognise and prioritise a broad range of users and stakeholders needs. I use these to inform my ideas. Justified Evaluations consider the successes and limitations of the design.	
Designing and Communicating: Inclusive Design Challenges : Two Ideas with basic detail and explanation. DOT Project : I have started to identify gaps through iterations of my design and have acted upon some of these. I have explored the needs of at least two clients. I have started to listen to others and have acted on some of their feedback.	Designing and Communicating: Inclusive Design Challenges : A range of Ideas with annotation. DOT Project : I have identified gaps through iterations of my design and have acted upon these. I have explored the needs of at least two stakeholders. I have listened to others and have acted on some of their feedback to improve my design.		Designing and Communicating: Inclusive Design Challenges : A wide range of Ideas with detailed annotation. DOT Project : I have identified gaps through iterations of my design and have acted upon these. I have explored the needs of each stakeholder through the iterative process. I have listened to others and have acted on their feedback to improve my design, into a functioning prototype model.	
Prototyping, Planning and Making: Inclusive Design Challenges : Some Models or Development Drawings with detail demonstrate some	Prototyping, Planning and Making: Inclusive Design Challenges : Detailed Models or Development Drawings demonstrate skill and quality. DOT Project : I have many prototypes that have been made		Prototyping, Planning and Making: Inclusive Design Challenges : Detailed Models or Development Drawings demonstrate high skill and high quality. DOT Project : I have many prototypes that have been made through an iterative	

Depth of Understanding Grade Descriptors for Year 9 D&T Coffee Shop project work $\,$ - D&T / Engineering

Task	Details /activities	No work	1-2	3-4	4-5	6-7	8-9
Knowledge, understanding and Evaluating	 Specification Iconic Design research Reviewing and annotation throughout Peer feedback Evaluation, review and modifications 	WOR	 I have modelled existing designs I have written one specification point I have looked at visual inspiration provided for me. I can say what is good or not so good about my work. 	 I have modelled and reflected upon existing designs I have written one or two specification points I have collected some research I can reflect upon ideas. I can evaluate some aspects of my work. 	 I have modelled and reflected upon the pros and/or cons of existing designs I have written some specification points I have collected some research and written descriptions I reflect upon ideas. I evaluate some aspects of my work. I can record feedback from others. 	 I have modelled and reflected upon the pros and cons of existing designs I have written several specification points, which are justified. I have collected research and written detailed descriptions. I reflect well upon ideas. I evaluate my work well. I can record feedback from others. 	 I have modelled and reflected upon the pros and cons of existing designs I have written several specification points, which are well justified. I have carried out pertinent research and written detailed descriptions and analysis. I reflect thoroughly upon ideas. I evaluate my work in detail. I can record feedback from others and conclude my findings.
Designing & communicating ideas	 Ideas development – 2d and 3d sketches CAD design work Alessi product sketch Using inspiration to inform ideas – design in the mode of Alessi Written and visual methods of communication, including annotation 		 I have produced one idea using basic sketching techniques, modelling and/or CAD. 	 I have produced one or two ideas using basic sketching techniques, modelling and/or CAD. My ideas draw upon visual inspiration. 	 I have produced some ideas through sketches, card modelling and CAD to communicate ideas. My ideas draw upon visual inspiration. My sketches are labelled or annotated. 	 I have produced a range of sketches, card modelling and CAD to communicate ideas effectively. My ideas clearly draw upon visual inspiration. My sketches are well annotated. 	 I have produced a wide range of creative and effective ideas. I have used a range of sketching, visual presentation techniques, card modelling and CAD to communicate ideas effectively. My ideas clearly draw upon visual inspiration and show development. My sketches are well annotated in detail.
Planning, Making & Prototyping design	 CAD card prototype Ideas development – Modelling & prototyping Final presentation drawing (optional) 		My final designs are presented through models, CAD models and/or final presentation drawings. They demonstrate a basic level of skills, quality and accuracy.	My final designs are effective and well presented through models CAD models and/or final presentation drawings, demonstratin g developing skills quality and accuracy.	My final designs are effective and well presented through models, CAD models and/or final presentation drawings, demonstrating a moderate level of skills, quality and accuracy.	My final designs are effective, of good quality and well presented through models, CAD models and/or final presentation drawings, demonstrating a good level of skills, quality and accuracy.	My final designs are effective, of high quality and well presented through models, CAD models and/or final presentation drawings, demonstrating a high level of skills, quality and accuracy.
Final Assessment	Knowledge, Unders Designing & Comm Planning, modelling Overall Grade	unicati	ng				

Depth of Understanding Grade Descriptors for Year 9 D&T Coffee Shop project work - Graphics/Construction

Task	Details	1-2	2-3		4-5	6-7	8-9
Knowledge, Understanding and	 Mindmap and mood board Research Reviewing and annotation throughout Customer Survey/ peer feedback & Evaluation 	- Limited ideas - Minimal annotation	 I have made some decisions about the situation and my target market, but with little or no explanation about suitability I talk about and reflect upon my ideas with others. I can describe what I like and dislike. 	ideas a I have o researco inspira -I refleo some io aspects	mind-mapped some bout the situation. collected some ch and visual tion. ct upon and/or review deas. I evaluate some s of my work. I can feedback from others.	 -I have carried out a task analysis, through mind-mapping ideas linked to my target market. I have justified my choices well. I have carried out relevant research and collected visual inspiration. -I reflect upon my ideas and review in light of changes. I evaluate aspects of positive and negative in my work and suggest improvements. I can draw upon feedback from others. 	 -I have carried out a detailed task analysis, through mind- mapping ideas are highly appropriate for my target market, with justification showing good awareness of their wants and needs. I have carried out pertinent research and collected a range of visual inspiration. -I reflect upon my ideas in detail and regularly review in light of changes. I evaluate aspects of positive and negative in my work and suggest improvements. I can draw upon feedback from others. I can justify my evaluations.
Designing and Communicating	-Idea development -Typography Ideas Illustration/Logo using inspiration to inform ideas Written and visual methods of communication	- I have produced at least one idea that meets the brief	-I have produced limited ideas for some aspects of the brief and specification. - My ideas show limited development.	for more and spectrum	produced some ideas st aspects of the brief ecification. eas show some pment	 -I have produced a range of good ideas for all aspects of the brief and specification and explained my choices. -My ideas show clear development. 	 -I have produced a wide range of creative and effective ideas. I have developed every aspect of the brief and specification to ensure that my branding is fit for purpose. This is made clear in my annotation. -My ideas show detailed development.
Prototyping, Planning and Making	 Final design presented for client Making of sign using practical skills and problem solving Precision, accuracy and quality of making 	 -My final design is mostly complete. Practical skills are developin g 	 -My final designs are presented for the client, demonstrating a basic level of skill. My Sign is made and complete 	effectiv demon skills. • My S comp adeq	al designs are ve and well presented, strating developing ign is made and olete, showing an uate level of practical and accuracy and ty	 -My final designs are effective and show some development from my initial ideas. I have drawn upon some inspiration. My final design is presented to a high quality, demonstrating a good level of skill. My Sign is made and complete, showing a good level of practical skills, accuracy and quality 	 -My final designs are effective and original and show significant development from my initial ideas. I have drawn upon and used inspiration. My final design is presented to a very high quality, demonstrating a high level of skill. My Sign is made and complete, showing a high level of practical skills, accuracy and quality
Assessment	Knowledge, Understanding & Evaluation Designing & Communicating Planning, modelling & Prototyping				Overall Grade:	Target:	

Depth of Understanding Grade Descriptors for Year 9 D&T Sustainable Living project work

Task	Details /activities	GRADE 1-2	GRADE 3	GRADE 4-5	GRADE 6-7	GRADE 8-9
Knowledge, understanding and Research	 Mind-map and analysis of requirements Mood-board for Client's needs/likes Existing building research Working out Scale 	Brief analysis of requirements and/or possibilities. Limited investigations with no explanations. Scale is only partially understood or misunderstood.	Some analysis of requirements and/or possibilities. Some investigations with limited explanations. Scale is only partially understood or misunderstood.	Description of requirements and/or possibilities, considering the client and/or environment. Some investigations and explanations. Scale is mainly understood.	Detailed analysis of requirements and/or possibilities, considering the client and/or environment. Some detailed investigations and explanations. Scale is applied.	Comprehensive analysis of requirements and/or possibilities, considering the client and/or environment. Comprehensive investigations and explanations. Scale is well, considered and accurate.
Designing & communicating ideas	 Initial ideas Different methods of 2d /3d drawings Designs inspired by abstract objects Biomimicry inspired designs Scale plan drawing Final design drawings Clear annotation 	One or two ideas with limited detail and explanation. Ideas may be fixated and lack creative purpose. Final design drawings and plans are drawn simplistically. Design features are labelled.	At least two ideas with limited detail and explanation. Ideas may be fixated and lack creative purpose. Final design drawings and plans are drawn and design features are labelled.	Two or more different ideas with adequate detail and explanation. Ideas draw upon some inspiration and show creative potential. Final design drawings and plans are drawn with adequate detail. Design features are clearly labelled.	A range of ideas with annotation. A design strategy and inspiration influence creative outcomes. Final design drawings and plans are drawn with detail and accuracy. Design features are clearly annotated.	A wide range of ideas with detailed annotation. Design strategies and inspiration influence highly creative outcomes. Final design drawings and plans are drawn with a high level of detail and accuracy. Design features are well annotated.
Planning, Making & Prototyping design	 Planning scale Planning modelling materials & tools Planning Team's tasks Creating at least one aspect of a scale model: Main building Interior Exterior/landscape 	A basic attempt to create a model has been made. The model has not been created using a range of materials and is not accurate. Support was required.	Materials and tools have been selected. Modelling is limited and demonstrates basic skill and accuracy. Features may be out of proportion and not to scale.	Materials and tools have been planned and selected. Modelling of the design demonstrates some skill and accuracy. Features show proportion and a sense of scale.	Scale, materials and tools have been thoughtfully planned and selected. Detailed modelling of the design demonstrates skill and accuracy. Modelling demonstrates the use of scale.	Scale, materials and tools have been thoughtfully selected and planned in detail. Detailed modelling of the design demonstrates a high level of skill and accuracy. Modelling has been produced to scale.
Evaluation of designs	 Analysis of existing buildings Annotation and evaluation of design ideas Evaluation of final outcomes Evaluation of planning & Team's performance Modifications 	No attempt at an evaluation	Little analysis or evaluation. No or little reflective practice or discussion through annotation. No suggested modifications.	Limited analysis or evaluation. Some reflective practice or discussion through annotation. Simple suggested modifications.	Some detailed analysis or evaluation. Some detailed reflective practice or discussion through annotation. Suggested modifications.	Comprehensive and justified analysis or evaluation. Detailed reflective practice or discussion through annotation. Suggested modifications in light of Evaluations.
Final Assessment	Knowledge, Understanding Designing & Communicating Planning, modelling & Proto Overall Grade	g	<u>.</u>	·	·	