Upper KS 2 Design and Technology

Skill Progression

Boltons C of E Primary School September 2014

Based on Key Assessment criteria (Focus Education UK Ltd)

Italicised bullet points are by way of guidance.

Developing, Planning and Communicating Ideas

I can come up with a range of ideas after collecting information from different sources

I can produce a detailed step-by-step plan

I can suggest alternative plans; outlining the positive features and draw backs

I can explain how a product will appeal to a specific audience

I can carry out market research to inform my plans and ideas

I can follow and refine my plans

I can justify my plans in a convincing way

I can show that I can test and evaluate my products

I can work within a budget

* *Investigate products/images to collect ideas*
* *Sketch and model alternative ideas*
* *Develop one idea in depth*
* *Combine modelling and drawing to refine ideas*
* *Plan the sequence of work using a storyboard*
* *Record ideas using annotated diagrams*
* *Use models, kits and drawings to help formulate design ideas*
* *Make prototypes*
* *Use found information to inform decisions*
* *Use a computer to model ideas*
* *Draw plans which can be read/followed by someone else*
* *Give a report using correct technical vocabulary*

Food

I can show that I can be both hygienic and safe in the kitchen

* *Prepare food products taking into account the properties of ingredients and*
* *sensory characteristics*
* *Select and prepare foods for a particular purpose*
* *Taste a range of ingredients, food items to develop a sensory food vocabulary for*
* *use when designing.*
* *Weigh and measure using scales*
* *Cut and shape ingredients using appropriate tools and equipment e.g. grating*
* *Join and combine food ingredients appropriately e.g. beating, rubbing in*
* *Decorate appropriately*
* *Work safely and hygienically*
* *Show awareness of a healthy diet from an understanding of a balanced diet*

Textiles

* *Create 3D products using pattern pieces and seam allowance*
* *Understand pattern layout*
* *Decorate textiles appropriately often before joining components*
* *Pin and tack fabric pieces together*
* *Join fabrics using over sewing, back stitch, blanket stitch or machine stitching*
* *(closer supervision)*
* *Combine fabrics to create more useful properties*
* *Make quality products*

Construction

I can use a range of tools and equipment competently

I can make a prototype before making a final version

* *Use bradawl to mark hole positions*
* *Use hand drill to drill tight and loose fit holes*
* *Cut strip wood, dowel, square section wood accurately to 1mm*
* *Join materials using appropriate methods*
* *Incorporate motor and a switch into a model*
* *Control a model using an ICT control programme*
* *Use a cam to make an up and down mechanism.*
* *Build frameworks using a range of materials e.g. wood, card corrugated plastic to*
* *support mechanisms*
* *Use glue gun with close supervision*
* *Cut slots*
* *Cut accurately and safely to a marked line*
* *Join and combing materials with temporary, fixed or moving joinings*
* *Use craft knife, cutting mat and safety ruler under one to one supervision if*
* *appropriate*
* *Choose an appropriate sheet material for the purpose*

Evaluating

I can evaluate appearance and function against original criteria

I can evaluate my product against clear criteria

* *Use the design criteria to inform their decisions about ways to proceed*
* *Justify their decisions about materials and methods of construction*
* *Reflect on their work using design criteria stating how well the design fits the*
* *needs of the user*
* *Identify what does and does not work in the product.*
* *Make suggestions as how their design could be improved*