YEAR: 7	SUBJECT: DT	TITLE: ENVELOPE HOLDER

OBJECTIVE: To introduce the pupils to a typical design problem based on a problem seen in every home. The pupils will be introduced to a simple drawing skills, a range of materials and fixing techniques.

STAGE	ADDITIONAL SKILLS	EXTENSION WORK	RESOURCES	H&S
Stage One The pupils will be asked about the problems associated with letters arriving at home. For example, losing letters, damage to envelopes, general storage problems etc.... The pupils will be shown how to construct a 'Rich Picture' with envelopes at its centre. The use of diagrams / drawings will be explained.	L. The pupils will be asked how a letter is set out - address, dates etc.… N. border and guideline layout, including measurements will be explained. HWK. Pupils to ask parents about the problems they have encountered when storing letters.	Pupils to explain how they could use an envelop storage unit.	Website reference Drawing and writing equipment	CONTROL MEASURE CLEAPPS REF. RESIDUAL RISK
Stage Two The Design Problem and Brief will be discussed in detail. ***PROBLEM*** When letters are posted through the letter box they are often damaged by people walking on them or the dog chewing them. The letters are sometimes put to one side and they look untidy. ***BRIEF*** I am going to design and make a storage unit for envelopes / letters. It will hold several letters so that they are neat and kept in one place. It will be interesting to look at and strong. The storage unit will be cheap to make and a simple design. The presentation of both the *brief* and *problem* will be explained. Traditional drawing equipment will be used especially to aid printing. Drawings will be added. (Pupils can produce their own problem and brief, alter the example or copy the one above)	L. Pupils read the example problem and brief - individually and as a class. N. Pupils shown how to measure guidelines for border and printing. ICT Pupils take turns to word process problem and brief. HWK. Complete presentation of problem and brief.	Pupils to write their own problem and brief. Pupils collect a range of used envelopes.	Website reference Drawing and writing equipment Sample layouts	CONTROL MEASURE CLEAPPS REF. RESIDUAL RISK

STAGE	ADDITIONAL SKILLS	EXTENSION WORK	RESOURCES	H&S
Stage Three The pupils will collect old envelopes. It will be stressed that they should be different sizes / dimensions. The concept of 'research' will be explained and the pupils will be shown how to present their envelope research / statistics as a table of results. The average size of an envelope will be determined and the size of the design will be based on this measurement.	N. Pupils shown how to produce a data collection table and to work out average measurements for the envelopes they collected. C. Explanation of role of research including questionnaires	L. Pupils to construct a simple questionnaire and carry it out at home. ICT. Questionnaire can be presented in ICT format.	Website reference Drawing and writing equipment Sample layouts Colouring pens/pencils.	CONTROL MEASURE CLEAPPS REF. RESIDUAL RISK
Stage Four The pupils will produce four designs and draw them using traditional drawing equipment. Explanatory notes will be added to each idea.	L. Explanation of use and type of notes to be added to designs. N. Use of equipment such as 45 and 60 degree set squares explained.	ICT. Pupils to construct a design using a simple computer aided design package.	Website reference Drawing and writing equipment Sample layouts Colouring pens/pencils.	CONTROL MEASURE CLEAPPS REF. RESIDUAL RISK
Stage Five The pupils will select their best idea and produce a working drawing. Front, side and pan views will be explained and the construction of each 'view' demonstrated. Dimensions will be added. Those pupils who complete the 'orthographic drawing' will attempt a three dimensional presentation.	ICT. Pupils to draw a view of their final design using a graphics software package. N. Simple scale drawings will be discussed. Pupils attempt scaled drawing. N. Restricted number of dimensions added to working drawing.	Pupils to sketch / collect examples of existing designs, as seen in the shops and catalogues.	Website reference Drawing and writing equipment Sample layouts Colouring pens/pencils.	CONTROL MEASURE CLEAPPS REF. RESIDUAL RISK
Stage Six The pupils will be shown how to manufacture their selected design. Pupils will keep a diary of the manufacture, including sketches and notes. This will be in the form of a sequential drawing and concentrate on production / manufacturing techniques. Improvements will also be noted	L. Pupils to follow verbal and written instructions regarding safe working practice. N. Use of measuring instruments to mark and cut/shape materials.	Pupils to draw stages of a manufacturing sequence drawing.	Website reference Drawing and writing equipment Sample layouts Colouring pens/pencils.	CONTROL MEASURE Use of Fretsaw, sander, drilling machine - Teacher instruction. Ventilation CLEAPPS REF. **Fret Saws 1.067** **Sander - 1.062** **Drill - 1.031** RESIDUAL RISK LOW

STAGE	ADDITIONAL SKILLS	EXTENSION WORK	RESOURCES	H&S
Stage Seven The class will carry out an 'Evaluation' of their own work and the rest of the class. Pupils will mark each others work and present this data as a table.	N. Pupils to present their marks as a table of results with average mark collated. L. Pupils to read their evaluations to the class. ICT. Pupils to present their evaluations in an ICT format.	ICT. Pupils to complete the presentation of their evaluations in an ICT format.	Drawing equipment. ICT software	CONTROL MEASURE CLEAPPS REF. RESIDUAL RISK