Appendix 1

SUMMARY OF FRAMEWORK FOR ENVIRONMENTAL STUDIES

COMPONENT	ATTAINMENT OUTCOMES	KNOWLEDGE AND UNDERSTANDING STRANDS	SKILLS STRANDS	DEVELOPING INFORMED ATTITUDES STRANDS
Social Subjects (These relate to History)	People in the past	• People, events and societies • Change and continuity, cause and effect • Time and historical sequence • The nature of historical evidence	(These apply to <u>all</u> areas)	(These apply to <u>all</u> areas)
Geography	People and Place	• Using maps • The physical environment • The human environment • Human-physical interactions	• Preparing for tasks	• A commitment to learning
Modern Studies	People in Society	• People and needs in society • Rules, rights and responsibilities in society • Conflict and decision making in society	• Carrying out tasks	• Respect and care for self and others
Science These relate to aspects of Chemistry, Physics and Biology	Earth and Space Energy and Forces Living things and the processes of life	• Earth in space • Materials from Earth • Changing materials • Properties and uses of energy • Conversion and transfer of energy • Forces and their effects • Variety and characteristic features • The processes of life • Interaction of living things with their environment	• Reviewing and reporting on tasks	• Social and environmental responsibility
Technology (Relates to Home Economics, Technical, Education)	Technological capability	• Needs and how they are met • Resources and how they are managed • Processes and how they are applied		

SKILLS IN SOCIAL SUBJECTS – ENQUIRY

Appendix 2

STRAND	LEVEL A	LEVEL B	LEVEL C	LEVEL D	LEVEL E	LEVEL F
PREPARING FOR TASKS Planning tasks in a systematic and logical way	▪ suggest ways of finding answers to given questions	▪ identify simple approaches to tackling tasks and solving problems by asking questions and making suggestions	▪ plan a sequence of activities for tackling an enquiry, class or homework task	▪ plan a sequence of tasks or procedures, adapting as required	▪ plan appropriate strategies, resources and sequence of tasks or procedures, adapting as required	▪ plan appropriate strategies, resources and sequence of tasks or procedures, adapting as required
Identifying appropriate sources of information		▪ identify some relevant sources of information from those readily available	▪ suggest relevant sources of information that might assist in a particular enquiry task	▪ identify a variety of straightforward sources from which relevant information might be collected	▪ identify a variety of sources from which relevant information might be collected and give reasons for choice	▪ identify a variety of sources, including complex ones, from which relevant information might be collected, and give reasons for choice
CARRYING OUT TASKS Selecting relevant information and/or equipment: observe, measure, find, select, record	▪ find simple pieces of information, e.g. from displays, fieldwork, picture books or written sources	▪ select and record information for a given purpose, e.g. from a display, talk, film, book or simple weather equipment	▪ select and record specific information for a given purpose from a variety of sources available in the school or local community	▪ select and use known enquiry methods and/or equipment to access, select and record relevant information from a variety of straightforward sources	▪ select and use suitable methods and/or equipment to access, select and record a range of relevant information from a variety of different types of sources	▪ make independent use of suitable methods and techniques to access, select and record information from a range of sources, including complex ones
Processing information in a variety of ways	▪ process/classify simple information (e.g. pictorially)	▪ process/classify simple information in a variety of ways, e.g. making a map or diagram	▪ select simple techniques to process/classify straightforward information in a variety of ways	▪ select techniques to process/ classify information in a variety of ways, e.g. the results of a questionnaire	▪ select techniques to process/ classify information in a variety of ways, justifying choice	▪ make independent use of techniques to process/classify information in a variety of ways, justifying choice
Evaluating the usefulness and reliability of information			▪ distinguish in an elementary way between fact and opinion, fact/truth and fiction	▪ make simple judgements about the usefulness/ reliability of information/ evidence, e.g. by reference to bias	▪ make judgements about what evidence is relevant and reliable, e.g. by reference to bias, exaggeration and selective use of information	▪ recognise when information is likely to be irrelevant, biased or unacceptably inacurrate
REVIEWING AND REPORTING ON TASKS Presenting findings in an appropriate and coherent way	▪ present work to class by contributing to a classroom display and giving oral/written accounts of their part in class activity	▪ present findings in a brief report, e.g. written, talk, poster	▪ present findings in a report, communicating key points clearly	▪ present findings in an organised and appropriate manner	▪ present findings in a report (orally or in writing), showing clear organisation and appropriate specialist vocabulary	▪ present an extended report (orally or in writing), showing a clear and coherent argument or analysis
Presenting conclusions that are relevant to the given purpose or issue	• answer simple questions from the teacher on what they have found out	▪ present some simple conclusions based on their findings	▪ present conclusions giving reasons	▪ present conclusions and justify these with reference to evidence	▪ present conclusions that are well supported by reference to presented information	• present detailed conclusions, or conclusions on more complex issues, that are well supported by reference to presented information.

SKILLS IN SCIENCE – INVESTIGATING

Appendix 3

STRAND	LEVEL A	LEVEL B	LEVEL C	LEVEL D	LEVEL E	LEVEL F
PREPARING FOR TASKS Understanding the task and planning a practical activity Predicting Understanding fair testing	▪ make suggestions and contribute to the planning of simple practical explorations	▪ plan simple approaches by asking questions and making suggestions ▪ make suggestions about what might happen • recognise when a test or comparison is unfair	▪ suggest a question for exploration and decide how they might find an answer ▪ make reasoned predictions about a possible outcome ▪ suggest some ways of making a test fair	▪ identify two or three questions to investigate ▪ provide reasons for planning decisions ▪ include fair testing by changing one factor ▪ show awareness of the significance of variables ▪	▪ identify a number of questions to investigate ▪ plan a valid and reliable test for a given hypothesis	▪ formulate a testable hypothesis ▪ plan an appropriate strategy to investigate a hypothesis
CARRYING OUT TASKS Observing and measuring Recording findings in a variety of ways	▪ carry out simple observations and measurements ▪ record observations in a simple form	▪ use simple equipment and techniques to make observations and measurements ▪ record findings in a range of ways	▪ select and use appropriate measurement devices or make appropriate observations ▪ record findings in a greater range of ways	▪ make an appropriate series of accurate measurements ▪ select an appropriate way of recording findings	▪ select and use appropriate forms of graphical presentation	▪ make a series of measurements of the independent and dependent variables ▪ make their own selection and be able to use appropriate recording and presentation techniques
REVIEWING AND REPORTING ON TASKS Reporting and presenting Interpreting and evaluating results and processes	▪ participate in the presentation of the findings through visual displays and oral reports • answer simple questions about what happened	▪ make a short report of an investigation ▪ answer questions on the meaning of the findings ▪ recognise simple relationships and draw conclusions	▪ make a short report of an investigation, communicating key points clearly ▪ explain what happened, drawing on their scientific knowledge ▪ make links to original predictions	▪ make an organised report of an investigation using appropriate illustrations ▪ provide explanations related to scientific knowledge ▪ draw conclusions consistent with the findings ▪ identify limitations of the approach used	▪ write a structured report of an investigation using appropriate illustrations and vocabulary ▪ establish links between the results and the original hypothesis ▪ suggest improvements to the approach used	▪ evaluate a range of aspects of the investigation.

SKILLS IN TECHNOLOGY – DESIGNING AND MAKING

Appendix 4

STRAND	LEVEL A	LEVEL B	LEVEL C	LEVEL D	LEVEL E	LEVEL F
PREPARING FOR TASKS Analysing needs or problems. Researching what might be useful in addressing them. Planning ways to proceed.	▪ talk about what might be done to solve a practical problem ▪ talk about possible requirements (design criteria) ▪ suggest uses for given resources ▪ follow a simple plan	▪ describe possible approaches to solving a practical problem ▪ suggest helpful design criteria, based on discussion • suggest uses for available resources • make a simple plan by talking, writing, or drawing	▪ identify a problem and describe possible approaches ▪ select helpful design criteria, based on observation and discussion ▪ select possible resources and processes ▪ think up and communicate a plan	▪ identify a problem, describe what needs to be done and give reasons for approaches ▪ suggest and select relevant information to decide helpful design criteria, based on observation and discussion, and with reference to potential users ▪ investigate and select resources and processes ▪ develop and communicate a sequenced plan, individually and in groups, using appropriate media	▪ identify a problem, need and/or opportunity, explain what needs to be done in responding to, and in drawing up a design brief ▪ discuss and analyse relevant information and factors that will help establish design criteria. ▪ Investigate and select a range of resources and processes ▪ present a plan logically and effectively, making reference to equipment, systems and manufacturing processes ▪ adapt plans to take account of further insight or changing circumstances	▪ discuss and analyse an extensive range of factors to help establish design criteria relating to small and large-scale production ▪ devise methods of obtaining and compiling raw data into a useful form for the selection of resources and processes ▪ present a comprehensive plan for small or large-scale production, taking account of changing circumstances and audience
CARRYING OUT TASKS Developing ideas to address needs or problems. Creating solutions.	▪ use ideas and suggestions to try out possible solutions to a brief practical task ▪ show awareness, in their work, of any specific requirements (design criteria) ▪ use given resources and processes to carry out a task safely and hygienically	▪ use ideas and suggestions through talking, writing, drawing or by modelling to show how a brief practical task could be solved ▪ show both spontaneity and awareness of planning in carrying out a task ▪ use known design criteria to make decisions in their work	▪ use ideas, including from observation of existing products, to show possible solutions to a practical task ▪ follow a plan, introducing other ideas where appropriate ▪ relate ongoing work firmly to design criteria ▪ use given and self-selected resources and processes to carry out a task safely and hygienically	▪ use ideas, including any new suggestions, to represent a solution to a practical task ▪ relate ongoing work firmly to design criteria, taking account of any necessary modifications	▪ use ideas from a variety of sources to represent a solution to a practical task ▪ make considered changes to a plan ▪ justify decisions in relation to design criteria ▪ select from a range of possibilities, and use resources and processes to carry out a task safely, hygienically and effectively	▪ use ideas, demonstrating a range of techniques and presentation skills ▪ demonstrate effective and confident use of equipment, resources and processes to carry out a task safely, hygienically and efficiently
REVIEWING AND REPORTING ON TASKS Testing and evaluating solutions and the ways they were achieved.	▪ comment on the outcome of their work in relation to given requirements, and by comparing with the work of peers	• carry out simple tests ot their work against a limited number of design criteria ▪ show awareness of possible improvements ▪ express views through talking, writing and drawing	▪ evaluate their own work, and that of peers, by reference to simple tests that address design criteria ▪ offer suggestions for possible improvements in developing solutions ▪ express and record suggestions for improvements through talking, writing and drawing	▪ suggest ways of gathering valid evidence, including from intended users, to assess the quality of their work against design criteria ▪ use observation and evidence from tests in identifying, suggesting and developing improvements ▪ record evaluative comment using a range of methods ▪ show awareness of some consequences of their choices throughout a task	▪ devise, organise and carry out tests of existing and proposed solutions in order to suggest possible improvements ▪ evaluate a design activity in relation to the main design criteria ▪ show awareness of the consequences, beneficial or otherwise, of their own suggestions and decisions, by making evaluative, evidence-based comment on their own and others' work	▪ devise, organise and carry out tests relating to small and large-scale production ▪ evaluate a design activity in relation to the design criteria, taking account of economic, social and environmental consequences ▪ take account of possible contradictory evidence arising from the views of individuals or groups, and make valid judgements.

Appendix 5

SKILLS IN SCIENCE – INVESTIGATING **School** ..... **Name of Pupil** .....

STRAND	LEVEL A	Working at	Has achieved /Date	LEVEL B	Working at	Has achieved /Date	LEVEL C	Working at	Has achieved /Date
PREPARING FOR TASKS Understanding the task and planning a practical activity Predicting Understanding fair testing	▪ make suggestions and contribute to the planning of simple practical explorations			▪ plan simple approaches by asking questions and making suggestions ▪ make suggestions about what might happen • recognise when a test or comparison is unfair			▪ suggest a question for exploration and decide how they might find an answer ▪ make reasoned predictions about a possible outcome ▪ suggest some ways of making a test fair		
CARRYING OUT TASKS Observing and measuring Recording findings in a variety of ways	▪ carry out simple observations and measurements ▪ record observations in a simple form			▪ use simple equipment and techniques to make observations and measurements ▪ record findings in a range of ways			▪ select and use appropriate measurement devices or make appropriate observations ▪ record findings in a greater range of ways		
REVIEWING AND REPORTING ON TASKS Reporting and presenting Interpreting and evaluating results and processes	▪ participate in the presentation of the findings through visual displays and oral reports • answer simple questions about what happened			▪ make a short report of an investigation ▪ answer questions on the meaning of the findings ▪ recognise simple relationships and draw conclusions			▪ make a short report of an investigation, communicating key points clearly ▪ explain what happened, drawing on their scientific knowledge ▪ make links to original predictions		

SKILLS IN SCIENCE – INVESTIGATING Cont/d

STRAND	LEVEL D	Working at	Has achieved /Date	LEVEL E	Working at	Has achieved /Date	LEVEL F	Working at	Has achieved /Date
PREPARING FOR TASKS Understanding the task and planning a practical activity Predicting Understanding fair testing	▪ identify two or three questions to investigate ▪ provide reasons for planning decisions ▪ include fair testing by changing one factor ▪ show awareness of the significance of variables			▪ identify a number of questions to investigate ▪ plan a valid and reliable test for a given hypothesis			▪ formulate a testable hypothesis ▪ plan an appropriate strategy to investigate a hypothesis		
CARRYING OUT TASKS Observing and measuring Recording findings in a variety of ways	▪ make an appropriate series of accurate measurements ▪ select an appropriate way of recording findings			▪ select and use appropriate forms of graphical presentation			▪ make a series of measurements of the independent and dependent variables ▪ make their own selection and be able to use appropriate recording and presentation techniques		
REVIEWING AND REPORTING ON TASKS Reporting and presenting Interpreting and evaluating results and processes	▪ make an organised report of an investigation using appropriate illustrations ▪ provide explanations related to scientific knowledge ▪ draw conclusions consistent with the findings ▪ identify limitations of the approach used			▪ write a structured report of an investigation using appropriate illustrations and vocabulary ▪ establish links between the results and the original hypothesis ▪ suggest improvements to the approach used			▪ evaluate a range of aspects of the investigation.		

Appendix 6

SKILLS IN TECHNOLOGY – DESIGNING AND MAKING **School** ..... **Name of Pupil** .....

STRAND	LEVEL A	Working at	Has achieved /Date	LEVEL B	Working at	Has achieved /Date	LEVEL C	Working at	Has achieved /Date
PREPARING FOR TASKS Analysing needs or problems. Researching what might be useful in addressing them. Planning ways to proceed.	▪ talk about what might be done to solve a practical problem ▪ talk about possible requirements (design criteria) ▪ suggest uses for given resources ▪ follow a simple plan			▪ describe possible approaches to solving a practical problem ▪ suggest helpful design criteria, based on discussion • suggest uses for available resources • make a simple plan by talking, writing, or drawing			▪ identify a problem and describe possible approaches ▪ select helpful design criteria, based on observation and discussion ▪ select possible resources and processes ▪ think up and communicate a plan		
CARRYING OUT TASKS Developing ideas to address needs or problems. Creating solutions.	▪ use ideas and suggestions to try out possible solutions to a brief practical task ▪ show awareness, in their work, of any specific requirements (design criteria) ▪ use given resources and processes to carry out a task safely and hygienically			▪ use ideas and suggestions through talking, writing, drawing or by modelling to show how a brief practical task could be solved ▪ show both spontaneity and awareness of planning in carrying out a task ▪ use known design criteria to make decisions in their work			▪ use ideas, including from observation of existing products, to show possible solutions to a practical task ▪ follow a plan, introducing other ideas where appropriate ▪ relate ongoing work firmly to design criteria ▪ use given and self-selected resources and processes to carry out a task safely and hygienically		
REVIEWING AND REPORTING ON TASKS Testing and evaluating solutions and the ways they were achieved.	▪ comment on the outcome of their work in relation to given requirements, and by comparing with the work of peers			• carry out simple tests ot their work against a limited number of design criteria ▪ show awareness of possible improvements ▪ express views through talking, writing and drawing			▪ evaluate their own work, and that of peers, by reference to simple tests that address design criteria ▪ offer suggestions for possible improvements in developing solutions ▪ express and record suggestions for improvements through talking, writing and drawing		

SKILLS IN TECHNOLOGY – DESIGNING AND MAKING Cont/d

STRAND	LEVEL D	Working at	Has achieved /Date	LEVEL E	Working at	Has achieved /Date	LEVEL F	Working at	Has achieved /Date
PREPARING FOR TASKS Analysing needs or problems. Researching what might be useful in addressing them. Planning ways to proceed.	▪ identify a problem, describe what needs to be done and give reasons for approaches ▪ suggest and select relevant information to decide helpful design criteria, based on observation and discussion, and with reference to potential users ▪ investigate and select resources and processes ▪ develop and communicate a sequenced plan, individually and in groups, using appropriate media			▪ identify a problem, need and/or opportunity, explain what needs to be done in responding to, and in drawing up a design brief ▪ discuss and analyse relevant information and factors that will help establish design criteria. ▪ Investigate and select a range of resources and processes ▪ present a plan logically and effectively, making reference to equipment, systems and manufacturing processes ▪ adapt plans to take account of further insight or changing circumstances			▪ discuss and analyse an extensive range of factors to help establish design criteria relating to small and large-scale production ▪ devise methods of obtaining and compiling raw data into a useful form for the selection of resources and processes ▪ present a comprehensive plan for small or large-scale production, taking account of changing circumstances and audience		
CARRYING OUT TASKS Developing ideas to address needs or problems. Creating solutions.	▪ use ideas, including any new suggestions, to represent a solution to a practical task ▪ relate ongoing work firmly to design criteria, taking account of any necessary modifications			▪ use ideas from a variety of sources to represent a solution to a practical task ▪ make considered changes to a plan ▪ justify decisions in relation to design criteria ▪ select from a range of possibilities, and use resources and processes to carry out a task safely, hygienically and effectively			▪ use ideas, demonstrating a range of techniques and presentation skills ▪ demonstrate effective and confident use of equipment, resources and processes to carry out a task safely, hygienically and efficiently		
REVIEWING AND REPORTING ON TASKS Testing and evaluating solutions and the ways they were achieved.	▪ suggest ways of gathering valid evidence, including from intended users, to assess the quality of their work against design criteria ▪ use observation and evidence from tests in identifying, suggesting and developing improvements ▪ record evaluative comment using a range of methods ▪ show awareness of some consequences of their choices throughout a task			▪ devise, organise and carry out tests of existing and proposed solutions in order to suggest possible improvements ▪ evaluate a design activity in relation to the main design criteria ▪ show awareness of the consequences, beneficial or otherwise, of their own suggestions and decisions, by making evaluative, evidence-based comment on their own and others' work			▪ devise, organise and carry out tests relating to small and large-scale production ▪ evaluate a design activity in relation to the design criteria, taking account of economic, social and environmental consequences ▪ take account of possible contradictory evidence arising from the views of individuals or groups, and make valid judgements.		

SKILLS IN SOCIAL SUBJECTS - ENQUIRY **School** ..... **Name of Pupil** .....

STRAND	LEVEL A	Working at	Has achieved /Date	LEVEL B	Working at	Has achieved /Date	LEVEL C	Working at	Has achieved /Date
PREPARING FOR TASKS Planning tasks in a systematic and logical way Identifying appropriate sources of information	▪ suggest ways of finding answers to given questions			▪ identify simple approaches to tackling tasks and solving problems by asking questions and making suggestions ▪ identify some relevant sources of information from those readily available			▪ plan a sequence of activities for tackling an enquiry, class or homework task ▪ suggest relevant sources of information that might assist in a particular enquiry task		
CARRYING OUT TASKS Selecting relevant information and/or equipment: observe, measure, find, select, record Processing information in a variety of ways Evaluating the usefulness and reliability of information	▪ find simple pieces of information, e.g. from displays, fieldwork, picture books or written sources ▪ process/classify simple information (e.g. pictorially)			▪ select and record information for a given purpose, e.g. from a display, talk, film, book or simple weather equipment ▪ process/classify simple information in a variety of ways, e.g. making a map or diagram			▪ select and record specific information for a given purpose from a variety of sources available in the school or local community ▪ select simple techniques to process/classify straightforward information in a variety of ways ▪ distinguish in an elementary way between fact and opinion, fact/truth and fiction		
REVIEWING AND REPORTING ON TASKS Presenting findings in an appropriate and coherent way Presenting conclusions that are relevant to the given purpose or issue	▪ present work to class by contributing to a classroom display and giving oral/written accounts of their part in class activity • answer simple questions from the teacher on what they have found out			▪ present findings in a brief report, e.g. written, talk, poster ▪ present some simple conclusions based on their findings			▪ present findings in a report, communicating key points clearly ▪ present conclusions giving reasons		

SKILLS IN SOCIAL SUBJECTS – ENQUIRY Cont/d

STRAND	LEVEL D	Working at	Has achieved /Date	LEVEL E	Working at	Has achieved /Date	LEVEL F	Working at	Has achieved /Date
PREPARING FOR TASKS Planning tasks in a systematic and logical way Identifying appropriate sources of information	▪ plan a sequence of tasks or procedures, adapting as required ▪ identify a variety of straightforward sources from which relevant information might be collected			▪ plan appropriate strategies, resources and sequence of tasks or procedures, adapting as required ▪ identify a variety of sources from which relevant information might be collected and give reasons for choice			▪ plan appropriate strategies, resources and sequence of tasks or procedures, adapting as required ▪ identify a variety of sources, including complex ones, from which relevant information might be collected, and give reasons for choice		
CARRYING OUT TASKS Selecting relevant information and/or equipment: observe, measure, find, select, record Processing information in a variety of ways Evaluating the usefulness and reliability of information	▪ select and use known enquiry methods and/or equipment to access, select and record relevant information from a variety of straightforward sources ▪ select techniques to process/ classify information in a variety of ways, e.g. the results of a questionnaire ▪ make simple judgements about the usefulness/ reliability of information/ evidence, e.g. by reference to bias			▪ select and use suitable methods and/or equipment to access, select and record a range of relevant information from a variety of different types of sources ▪ select techniques to process/ classify information in a variety of ways, justifying choice ▪ make judgements about what evidence is relevant and reliable, e.g. by reference to bias, exaggeration and selective use of information			▪ make independent use of suitable methods and techniques to access, select and record information from a range of sources, including complex ones ▪ make independent use of techniques to process/classify information in a variety of ways, justifying choice ▪ recognise when information is likely to be irrelevant, biased or unacceptably inacurrate		
REVIEWING AND REPORTING ON TASKS Presenting findings in an appropriate and coherent way Presenting conclusions that are relevant to the given purpose or issue	▪ present findings in an organised and appropriate manner ▪ present conclusions and justify these with reference to evidence			▪ present findings in a report (orally or in writing), showing clear organisation and appropriate specialist vocabulary ▪ present conclusions that are well supported by reference to presented information			▪ present an extended report (orally or in writing), showing a clear and coherent argument or analysis • present detailed conclusions, or conclusions on more complex issues, that are well supported by reference to presented information.		