MINISTRY OF EDUCATION

REPUBLIC OF GHANA

NATIONAL SYLLABUS FOR INTEGRATED SCIENCE
(PRIMARY 4 - 6)

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RATIONALE FOR TEACHING INTEGRATED SCIENCE

Science and technology form the basis for inventions, for manufacturing and for simple logical thinking and action. This means that scientific and technological literacy is necessary for all individuals, especially in developing countries which have to move faster in the attempt to raise the standard of living of their people. Natural science is a fusion of the major branches of science. Its study at the basic education level will equip the young person with the necessary process skills and attitudes that will provide a strong foundation for further study in science at the upper primary level and beyond. It will also generate in the young person the interest and predispose him to the pursuit of scientific work.

GENERAL AIMS

The syllabus is designed to help the pupil to:

1. Develop mental attitudes such as of curiosity, creativity and critical thinking.
2. Develop skills, habits of mind and attitudes necessary for scientific inquiry.
3. Develop the skill of curiosity for investigating their environment for better understanding of it.
4. Communicate scientific ideas effectively.
5. Use scientific concepts for explaining their own lives and the world around them.
7. Treat all resources of the world with humane and responsible attitude.
8. Show concern and understanding of the interdependence of all living things and the Earth on which they live.
9. Design activities for exploring and applying scientific ideas and concepts.

SCOPE OF CONTENT

The topics in the syllabus have been carefully selected to introduce the pupil to the enquiry processes of science as well as to basic ideas in science. The topics cover the basic science disciplines, agriculture, health, industry and Basic electronics.

PRE-REQUISITE SKILLS

For successful study of Natural Science at this level, the pupil should have good observational skills and communication skills. Children who have gone through studies in Environmental Studies at Kindergarten will benefit greatly from this subject.

ORGANISATION OF THE SYLLABUS

The syllabus has been structured to cover each of the three years of Primary 1-3. Each year’s work has been grouped under five sections or themes (Diversity of matter, Cycles, Systems, Energy and Interactions of matter). Each of these themes is related to everyday experiences of the child, and to commonly observed phenomena in the child’s environment. The main aim is to enable pupils appreciate the links between different scientific topics and thus help them to integrate
scientific ideas in dealing with phenomena. The sections/themes cover a core of concepts which provide broad based understanding of the environment upon which the foundation for further study could be built.

The topics under each theme are not to be looked at as separate or isolated blocks of knowledge. In general, there are no clear borders between these themes. There are some topics that are common to different themes. A conscious effort should therefore be made by the teacher to let pupils see the link between themes whenever possible. In particular, it will be noted that Systems, Energy and Interactions of matter are closely related.

Another feature of the syllabus is the Spiral Approach. This is characterised by revisiting concepts and skills at different levels with increasing degrees of depth at each stage. The spiral approach has the benefit of matching scientific concepts and skills to pupils’ cognitive development. It therefore helps pupils to build a gradual mastery of scientific skills.

The titles of the sections are the same for each class level. However, the knowledge, understanding as well as the activities and range of process skills presented have been extended at the different class levels. The focus of each theme is provided below.

**Diversity of matter**

Pupils should recognize that there is a great variety of living and non-living things in the world. Humans seek to organise this great variety to better understand the world in which they live. There are common threads that connect all living things. There are also unifying factors in the diversity of non-living things that scientists use to classify them. The study of the diversity in the world should also help pupils to appreciate the importance of life’s diversity and therefore take necessary steps for maintaining this diversity. Topics covered under Diversity of matter include the following:

1. Metals and non-metals
2. Parts of flowers and their function
3. Fruits and seeds

**Cycles**

Pupils should recognise that there are repeated patterns of change in nature and should seek to understand how these patterns occur. Examples of cycles are the day and night cycle, life cycles of living things and the recycling of resources. Studying these cycles helps humans to understand the Earth as a self-sustaining system and secondly, helps humans to be able to predict events and processes. Topics included under cycles are as follows:

1. Ventilation
2. Water cycle
3. Life cycle of okro and maize plants
4. Life cycle of mosquito

**Systems**

Pupils should recognise that a system is anything that consists of parts that work together to perform a function. There are natural systems and there are artificial systems. Examples of systems in nature are the solar system, the circulatory and respiratory systems. Examples of artificial systems are electrical systems. A study of these systems allows humans to understand how systems operate and how parts of systems influence and interact with each other to perform a function. Topics included in this topic are as follows:

1. Parts of plants and their functions
2. Digestive systems
3. The human body system
4. The solar system
Energy

Pupils should appreciate that energy affects both living and non-living things. Energy makes changes and movement possible in everyday life. There are many forms of energy and one form can be converted to another. Humans use energy in many ways for different purposes. Humans are not the only living things that use energy; all living things obtain energy and use it to carry out life processes. The study of this theme will allow pupils to appreciate the importance and uses of energy and the need to conserve it. Topics covered under this theme include the following:

1. Sources of energy
2. Basic electronics
3. Forms of energy and conversions
4. Change of state of matter
5. Light energy

Interactions of matter

Pupils should appreciate that the study of the interactions between and within systems helps humans to better understand the environment and their role in it. There are many types of interactions. There are interactions between the living world and the environment at various levels; there are interactions which occur within an organism, between organisms as well as between organisms and the environment. There are also interactions between forces and objects. At the societal level, it is the interaction of humans with their environment that drives the development of Science and Technology. At the same time, Science and Technology influences the way humans interact with their environment. Pupils will therefore be better able to appreciate the consequences of their actions by a study of the interactions between humans and their environment. Topics treated under this theme include the following:

1. Magnets
2. Simple machines
3. Forces
4. Pollution
5. Chemical processes in nature e.g. rusting.
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TIME ALLOCATION

The suggested time allocation for Natural Science for Primary 4-6 is six periods of thirty minutes each, a week. The six periods should preferably be divided into three double periods. Variations in time allocation may however, be announced by GES as and when necessary and schools will be required to comply.

SUGGESTIONS FOR TEACHING THE SYLLABUS

A class may consist of pupils of different physical problems and mental abilities. Some of the children may have high mental ability, while others may be slow learners; some may be dyslexic and not able to read or spell well as the others in the class. All these are special needs children who need special attention. Ensure that you give equal attention to all pupils in your class to provide each of them equal opportunities for learning. Pupils with disabilities may have hidden talents that can only come to light if you provide them the necessary encouragement and support in class.

General Objectives

General Objectives have been listed at the beginning of each section of the syllabus, that is, just below the theme of the section. The general objectives flow from the general aims for teaching natural science listed on page (ii) of this syllabus. The general objectives form the basis for the selection and organization of the themes and their unit topics. Read the general objectives very carefully before you start teaching. After teaching all the units, go back and read the general aims and general objectives again to be sure you have covered both of them adequately in the course of your teaching.

Years and Units

The syllabus has been planned on the basis of Years and Units. Each year’s work is covered in a number of units sequentially arranged and in a meaningful manner such that each unit’s work will provide the necessary and enabling skills for the next unit. A description of the contents of each column is as follows:

Syllabus Structure

The syllabus is structured in five columns: Units, Specific Objectives, Content, Teaching and Learning Activities and Evaluation. A description of the contents of each column is as follows:

Column 1 - Units: The units in column 1 are the major topics of the year. You are expected to follow the unit topics according to the linear order in which they have been presented. However, if you find at some point that teaching and learning in your class will be more effective if you branched to another unit before coming back to the unit in the sequence, you are encouraged to do so.

Column 2 - Specific Objectives: Column 2 shows the Specific Objectives for each unit. The specific objectives begin with numbers such as 1.2.5 or 3.4.1. These numbers are referred to as "Syllabus Reference Numbers". The first digit in the syllabus reference number refers to the year/class; the second digit refers to the unit, while the third refer to the rank order of the specific objective. For instance 1.2.5 means Year 1 or Primary 1, Unit 2 (of Class 1) and Specific Objective 5. In other words 1.2.5 refers to Specific Objective 5 of Unit 2 of Primary 1. Similarly, the syllabus reference number 3.4.1 simply means Syllabus Objective number 1 of Unit 4 of Primary 3. Using syllabus reference numbers provide an easy way for communication among teachers and educators. It further provides an easy way for selecting objectives for test construction. For instance, if Unit 4 of Primary 3 has seven specific objectives 3.4.1 - 3.4.7, a teacher may want to base his/her test items/questions on objectives 3.4.4 to 3.4.7 and not use the other first three objectives. In this way, a teacher would sample the objectives within units to be able to develop a test that accurately reflects the importance of the various specific objectives and skills taught in class.

You will note also that specific objectives have been stated in terms of the pupil i.e. what the pupil will be able to do during and after instruction and learning in the unit. Each specific objective hence starts with the following "The pupil will be able to……." This in effect, means that you have to address the learning problems of each individual pupil. It means individualizing your instruction as much as possible such that the majority of pupils will be able to master the objectives of each unit.
of the syllabus. The teaching of Natural Science should be activity-oriented for two important reasons. The activity approach challenges the children to develop their own ideas, and secondly makes the subject more meaningful and relevant to them.

As has been said already, the order in which the topics appear should not necessarily be the teaching order. There should however, be a linkage in the order in which the units and specific objectives are treated. The teacher will have to study the syllabus carefully and plan ahead the activities the pupils will carry out during a particular period. Knowing the requirements of a particular lesson, the teacher should assemble the materials which will be required for the activities well in advance. The collection must be done by both the teacher and the pupils. Other materials like bottles, cans, match boxes, etc. may be continually collected and stored to be used when required. When materials are not available in the immediate environment, the teacher should try to contact resource persons or persons in higher institutions for help.

As pupils begin work on the activities of each lesson, the teacher should serve as a facilitator and motivate the pupils in various ways to sustain their interest. The teacher should pay particular attention to children’s questions and should also ask questions that will guide them to other areas of useful investigation. During the last ten minutes of the class activity, all pupils should come together to discuss their observations. The teacher must involve all pupils in the discussion.

**Column 3 - Content:** The "content" in the third column of the syllabus presents a selected body of information that you will need to use in teaching the particular unit. In some cases, the content presented is quite exhaustive. In some other cases, you could add some more information based upon your own training and based also on current knowledge and information.

**Column 4 - Teaching/Learning Activities (T/LA):** T/LA that will ensure maximum pupil participation in the lessons is presented in Column 4. The General Aims of the subject can only be most effectively achieved when teachers create learning situations and provide guided opportunities for pupils to acquire as much knowledge and understanding of science as possible through their own activities. Pupils' questions are as important as teacher's questions. There are times when the teacher must show, demonstrate, and explain. But the major part of a pupil's learning experience should consist of opportunities to explore various mathematical situations in their environment to enable them make their own observations and discoveries and record them. Teachers should help pupils to learn to compare, classify, analyze, look for patterns, spot relationships and come to their own conclusions/deductions. Avoid rote learning and drill-oriented methods and rather emphasize participatory teaching and learning in your lessons. You are encouraged to re-order the suggested teaching/learning activities and also add to them where necessary in order to achieve optimum pupil learning.

A suggestion that will help your pupils acquire the capacity for analytical thinking and the capacity for applying their knowledge to problems and issues is to begin each lesson with a practical problem. Select a practical problem for each lesson. The selection must be made such that pupils can use knowledge gained in the previous lesson and other types of information not specifically taught in class. The learning of any skill considered important must start early. From age six, engage your pupils in analytical thinking and practical scientific problem solving techniques.

**Column 5 - Evaluation:** Suggestions and exercises for evaluating the lessons of each unit are indicated in Column 5. Evaluation exercises can be in the form of oral questions, quizzes, class assignments, essays, project work, etc. Try to ask questions and set tasks and assignments, etc. that will challenge pupils to apply their knowledge to issues and problems as has already been said, and that will engage them in developing solutions, and in developing observational and investigative skills as a result of having undergone instruction in this subject. The suggested evaluation tasks are not exhaustive. You are encouraged to develop other creative evaluation tasks to ensure that pupils have mastered the instruction and behaviours implied in the specific objectives of each unit.

Lastly, bear in mind that the syllabus cannot be taken as a substitute for lesson plans. It is necessary that you develop a scheme of work and lessons plans for teaching the units of this syllabus.

**DEFINITION OF PROFILE DIMENSIONS**

The concept of profile dimensions was made central to the syllabuses developed from 1998 onwards. A 'dimension' is a psychological unit for describing a particular learning behaviour. More than one dimension constitutes a profile of dimensions. A specific objective may be stated with an action verb as follows: The pupil will be able to describe etc. Being able to "describe" something after the instruction has been completed means that the pupil has acquired "knowledge". Being able to explain, summarize, give examples, etc. means that the pupil has understood the lesson taught.
Similarly, being able to develop, plan, solve problems, construct, etc. means that the pupil can “apply” the knowledge acquired in some new context. Each of the specific objectives in this syllabus contains an "action verb" that describes the behaviour the pupil will be able to demonstrate after the instruction. "Knowledge", "Application", etc. are dimensions that should be the prime focus of teaching and learning in schools. It has been realized unfortunately that schools still teach the low ability thinking skills of knowledge and understanding and ignore the higher ability thinking skills. Instruction in most cases has tended to stress knowledge acquisition to the detriment of the higher ability behaviours such as application, analysis, etc. The persistence of this situation in the school system means that pupils will only do well on recall items and questions and perform poorly on questions that require higher ability thinking skills such as application of mathematical principles and problem solving. For there to be any change in the quality of people who go through the school system, pupils should be encouraged to apply their knowledge, develop analytical thinking skills, develop plans, generate new and creative ideas and solutions, and use their knowledge in a variety of ways to solve mathematical problems while still in school. Each action verb indicates the underlying profile dimension of each particular specific objective. Read each objective carefully to know the profile dimension toward which you have to teach.

The three profile dimensions specified for Natural Science (Primary 4-6) are the same as those for Primary 1-3. The dimensions for teaching, learning and testing and their respective weights are as follows:

- Knowledge and Understanding 20%
- Application of Knowledge 20%
- Attitudes and Process Skills 60%

Each of the dimensions has been given a percentage weight that should be reflected in teaching, learning and testing. The weights indicated on the right of the dimensions show the relative emphasis that the teacher should give in the teaching, learning and testing.

You will notice that “knowledge and understanding” and “application of knowledge”, have been given equal weight, and that greater emphasis has been placed on “attitudes and process skills” for the reason that pupils at this age need to acquire the necessary scientific process skills to be able to build their store of scientific concepts and principles.

The explanation and key words involved in each of the profile dimensions are indicated on the next page.

**Knowledge and Understanding (KU)**

- Knowledge

  The ability to:
  Remember, recall, identify, define, describe, list, name, match, state principles, facts and concepts. Knowledge is simply the ability to remember or recall material already learned and constitutes the lowest level of learning.

- Understanding

  The ability to:
  Explain, summarise, translate, rewrite, paraphrase, give examples, generalise, estimate or predict consequences based upon a trend. Understanding is generally the ability to grasp the meaning of some material that may be verbal, pictorial, or symbolic.

**Application of Knowledge (AK)**

Ability to use knowledge or apply knowledge, as implied in this syllabus, has a number of learning/behaviour levels. These levels include application, analysis, synthesis, and evaluation. These may be considered and taught separately, paying attention to reflect each of them equally in your teaching. The dimension "Application of Knowledge" is a summary dimension for all four learning levels. Details of each of the four sub-levels are as follows:

- Application

  The ability to:
  Apply rules, methods, principles, theories, etc. to concrete situations that are new and unfamiliar. It also involves the ability to produce, solve, operate, plan, demonstrate, discover etc.
Analysis

The ability to:
Break down material into its component parts; to differentiate, compare, distinguish, outline, separate, identify significant points etc., recognise unstated assumptions and logical fallacies recognise inferences from facts etc.

Synthesis

The ability to:
Put parts together to form a new whole. It involves the ability to combine, compile, compose, devise, plan, revise, design, organise, create, generate etc.

Evaluation

The ability to:
Appraise, compare features of different things and make comments or judgement, contrast, criticise, justify, support, discuss, conclude, make recommendations etc. Evaluation refers to the ability to judge the worth or value of some material based on some criteria.

You will note from the above that evaluation is the highest form of thinking and is therefore the most difficult behaviour. This accounts for the generally poor performance of students and people generally on tasks that call for evaluative thinking. Start to develop this important skill early in your pupils by giving them lots of chances to do evaluative thinking.

Attitudes and Process Skills

The scientific method is the means by which a scientist solves problems or seeks to gain information about events. Pupils should be exposed to situations that challenge them to raise questions and attempt to solve problems. The more often they are faced with these challenges, the more likely they are to develop positive attitude toward science, and the more likely they are to develop the relevant process skills. Details of each sub-skill in the "Attitudes and Process Skills" dimension are as follows:

A Basic Process Skills

Equipment and apparatus handling
This is the skill of knowing the functions and limitations of various apparatus, and developing the ability to select and handle them appropriately for various tasks.

Observing
This is the skill of using our senses to gather information about objects or events. This also includes the use of instruments to extend the range of our senses.

Classifying
This is the skill of grouping objects or events based on common characteristics

Comparing
This is the skill of identifying the similarities and differences between two or more objects, concepts or processes.

Communicating/Reporting
This is the skill of transmitting, receiving and presenting information in concise, clear and accurate forms - verbal, written, pictorial, tabular or graphical

Inferring
This is the skill of interpreting or explaining observations or pieces of data or information.
Predicting
This is the skill of assessing the likelihood of an outcome based on prior knowledge of how things usually turn out.

Analysing
This is the skill of identifying the parts of objects, information or processes, and the patterns and relationships between these parts.

Generating possibilities
This is the skill of exploring all the options, possibilities and alternatives beyond the obvious or preferred one.

Evaluating
This is the skill of assessing the reasonableness, accuracy and quality of information, processes or ideas. This is also the skill of assessing the quality and feasibility of objects.

Designing
This is the skill of Visualizing and drawing new objects or gargets from imagination

Measuring
This is the skill of using measuring instruments and equipment for measuring, reading and making observations

Interpreting
This is the skill of evaluating data in terms of its worth: good, bad, reliable, unreliable; making inferences and predictions from written or graphical data; extrapolating and deriving conclusions. Interpretation is also referred to as “Information Handling”.

Recording
This is the skill of drawing or making graphical representation boldly and clearly, well labelled and pertinent to the issue at hand.

Generalizing
This is the skill of being able to use the conclusions arrived at in an experiment to what could happen in similar situations

Planning and designing of Experiments
This is the skill of developing hypotheses; planning and designing of experiments; persistence in the execution of experimental activities; modification of experimental activities where necessary in order to reach conclusions.

B. Integrated Processes
Integrated processes are complex operations which call upon the use of several basic process skills. At the primary level, the integrated processes expected of pupils are:

i. **Creative Problem Solving**
   This is a process of analysing a problem and choosing a novel but relevant solution in order to remedy or alter a problem situation.

ii. **Decision-Making**
   Decision-making is the process of establishing and applying criteria to select from equally attractive alternatives. The process of establishing criteria involves consideration of the consequences and values.
iii. **Investigation**
This involves formulating questions or hypotheses, devising fair methods and carrying out those methods to find out answers to the questions or to verify the hypotheses.

In science process teaching and learning, teachers should teach each of the basic process skills explicitly through the use of appropriate activities and then meaningfully infuse the teaching of these skills in their lessons.

**Attitudes:**
For success in any endeavour, the individual needs to cultivate attitudes relevant to that area of endeavour. The learning of Integrated Science should aim at the acquisition of the following attitudes by pupils:

i. **Curiosity:**
The inclination or feeling toward seeking information about how things work in a variety of fields.

ii. **Perseverance:**
The ability to pursue a problem until a satisfying solution is found.

iii. **Flexibility in ideas:**
Willingness to change opinion in the face of more plausible evidence

iv. **Respect for Evidence:**
Willingness to collect and use data in one’s investigation, and also have respect for data collected by others.

v. **Reflection:**
The habit of critically reviewing ways in which an investigation has been carried out to see possible faults and other ways by which the investigation could be improved upon.

The teacher should endeavour to ensure that pupils cultivate the above scientific attitudes and process skills as a prelude to effective work in integrated science.

The action verbs provided under the various profile dimensions should help you to structure your teaching such as to achieve the effects needed. Select from the action verbs provided for your teaching, for evaluation exercises and for test construction. This will ensure that you give your pupils the chance to develop good scientific skills, and the capacity for excellent performance in school and in life. Check the weights of the profile dimensions to ensure that you have given the required emphasis to each of the dimensions in your teaching and assessment.

**FORM OF ASSESSMENT**

From September 2012, the form of assessment in schools will follow the requirements of the School Based Assessment (SBA) system. Schools will assess pupils/students at the end of the first four weeks, at the end of the eighth week and at the end of the eleventh week. Each test is called “Class Assessment Task (CAT)”. CAT1 will be administered at the end of the first four weeks of the term; CAT2 will be administered at the end of eight weeks of the term, and CAT3 will be administered at the end of the eleventh week, while the End-of-Term test will come possibly at the end of the twelfth week.
Apart from the three CATs and the end-of-term test, pupils/students will be required to carry out a project for each term. The project for the term will constitute CAT4 in the first term. Assessment in the school system will hence follow the guideline below:

**Term 1**

- **CAT1** – End of week 4 of Term 1  
- **CAT2** – End of week 8 of Term 1  
- **CAT3** – End of week 11 of Term 1  
- **CAT4** – Project work to be submitted at the end of the 11th week  
- **End-of-term examination administered at the end of the twelfth week**

**Term 2**

- **CAT5** – End of week 4 of term 2  
- **CAT6** – End of week 8 of term 2  
- **CAT7** – End of week 11 of term 2  
- **CAT8** – Project work to be submitted at the end of the 11th week  
- **End-of-term examination administered at the end of the twelfth week**

**Term 3**

- **CAT9** – End of week 4 of term 3  
- **CAT10** – End of week 8 of term 3  
- **CAT11** – End of week 11 of term 3  
- **CAT12** – Project work to be submitted at the end of the 11th week  
- **End-of-term examination administered at the end of the twelfth week**

CAT1, CAT5 and CAT9 will generally consist of an objective test, with possibly structured questions or story problems depending upon the subject.

CAT2, CAT6 and CAT10 will be based on 1, 2 or 3 topics that the teacher identifies as important but difficult for pupils/students to learn in the first and second month of the term. CAT2, CAT6 and CAT10 will be organized as Group Exercise where groups of pupils/students will discuss and learn by the cooperative learning approach and each group's work awarded marks by the teacher. The group exercise could also be based on some practical work such as in ICT and BDT.

CAT3, CAT7 and CAT11 will be administered tasks consisting of objective items, structured questions and possibly practical exercises.

It is expected that the administration of all the CATs will be completed by the end of the eleventh week of the term to allow schools enough time to prepare for the administration of the end-of-term examination.

Because of increasing numbers in classrooms, project work will be carried out as group projects where each project will be planned and carried out by a group of pupils/students. Schools will be supplied with at least six project topics for each class for the year. Groups of pupils/students will be expected to select a project topic of their interest in each term in the first two weeks of the term, carry out the project over the next two months and submit their completed project by the end of the eleventh week.
End-of-term Examination

The end-of-term examination should be developed to consist of Section A and Section B. Section A will be the objective items section; Section B will be the structured questions section. Depending upon the requirements of the subject, there could be a Section C, the practical test component.

Home Work and Class Exercises

Home work and class exercises are very important aspects of formative evaluation in the teaching and learning process but will not be included in the SBA. Teachers are however, expected to give homework and class exercises as part of the regular teaching and learning process.

SBA at JHS3

SBA will terminate at the end of the first term of JHS3 after completing CATs 1- 4. This is to allow JHS3 students the time to prepare for the BECE coming at the end of April of the next year.

Purposes of SBA

The purposes of the new SBA are as follows:

- To provide a reduced but more effective system of internal school assessment replacing the former Continuous Assessment system which was rather tedious for both teachers and pupils/students
- To standardize the practice of internal school assessment throughout the country
- To provide teachers with guidelines for constructing assessment items/questions
- To provide teachers with advice on how to conduct remedial instruction to improve pupil/student school performance
- To provide guidance in marking and grading test items and questions and carry out general appraisal of pupil/student performance

SBA Handbook

Details of the SBA system are contained in the “Teachers’ Handbook on School Based Assessment”. The details include issues on the following:

- Characteristics of the SBA
- Structure of the SBA and mark allocation for the SBA
- Directions for developing and administering the SBA and the end-of-term examination
- Using SBA for improving learning; including marking and grading systems
- Guidelines for project development and project assessment

The Handbook contains sample items and questions for all subjects from Primary 1 to JHS3. Teachers are expected to use the sample items and questions provided in the handbook as guides for developing their own items and questions for the CATs and end-of-term examinations.
Accompanying the SBA Handbook are the following records:

- Primary School/JHS SBA Register
- Pupil's/Student's Report Card
- Pupil's/Student's Progress Record (i.e. Cumulative record)

Teachers are encouraged to obtain copies of the SBA Handbook to guide them in carrying out the SBA process.