

# MINISTRY OF EDUCATION



REPUBLIC OF GHANA

## TEACHING SYLLABUS FOR JEWELLERY (SENIOR HIGH SCHOOL 1 - 3)

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# TEACHING SYLLABUS FOR JEWELLERY

## RATIONALE FOR TEACHING JEWELLERY

Jewellery embraces all art activities that result in two-dimensional and three-dimension forms. It encourages creativity, creates employment opportunities, enhances quality of life and promotes self reliance.

Cultures all over the world bequeath to their people certain vocations. Jewellery, like other vocations such as basketry, pottery, picture making, etc. is a world-wide vocation and culturally based. Appreciation of the cultural heritage of a society is part of the ingredients that form the basis for a programme in jewellery and promote practices that enhance the quality of life of society.

In Ghana, jewellery has been used from time immemorial for a variety of occasions such as festivals and other social gatherings where chiefs, statesmen and women etc. use all types of jewellery to adorn themselves. Ghana has already made a mark on the international scene through the splendid display of gold regalia by her chieftaincy institution of Ashanti, Denkyira etc. Ghanaian traditional jewellery and metalwork are well known in the developed world. This achievements must be built upon to enable us establish a vibrant jewellery tradition in the country to facilitate the production and export of well designed authentic traditional jewellery. The increasing trend in tourism in Ghana, the general expansion in various forms of work, industry and technology and the fact that Ghanaians continue to adorn themselves with available ornaments to look prettier, necessitate the development and acceptance of jewellery as a viable vocation. Besides, most basic tools for jewellery are quite simple, inexpensive and can be acquired with relative ease. Raw materials such as wood, coral, clay, metal, stones and other natural and man-made materials used for making ornaments are readily available in most Ghanaian localities.

In the present world of globalisation, a country like Ghana with its comparative advantage in natural resources, ought to vigorously support and promote visual arts education in jewellery to provide knowledge and skills that will enable the youth add value to these resources. It is important therefore that, our young people are encouraged to develop love and appreciation for aesthetics, apply it to the environment and strive to develop and sustain the positive cultural values of society

To arouse and sustain the interest of the youth in creativity, critical thinking and problem solving, it is necessary to harness science and technology in developing the requisite skills for the jewellery sector. This can be achieved holistically through the use of head, hand and heart as students learn to manipulate natural and synthetic materials, within the local environment, into finished products. This syllabus will enable students to acquire knowledge and skills in jewellery making and help them to develop their creative and aesthetic potentials towards making a living and contributing to the economic growth of themselves and their country.

## GENERAL AIMS:

The syllabus is designed to help students to:

1. appreciate jewellery as an integral part of industrial development and living.
2. develop the capacity for creativity using indigenous and contemporary tools and materials in jewellery.
3. apply basic skills necessary for establishing and managing a jewellery workshop/enterprise.
4. develop efficient manipulative, aesthetic and technical skills using tools and materials to make items of jewellery.
5. acquire perceptive and analytical skills through the processes of self-expression and communication.

**SCOPE OF CONTENT** The scope of jewellery has been designed in such a way as to provide adequate foundation for students who will pursue further education in art. The course also offers enough knowledge and skills to students terminating their education at the end of Senior High School who would practise the vocation in the world of work. This course covers the history, principles and practice of jewellery as a vocation and offers suggestions for its appreciation and evaluation.

## PRE-REQUISITE SKILLS AND ALLIED SUBJECTS

The study is based on the course in Basic Design and Technology offered at the Basic Education level. Students offering a course in Leatherwork should have acquired satisfactory literacy and numeracy skills including basic skills in drawing and designing, as well as knowledge in Social Studies at the Junior High School level.

## SELECTION OF OPTIONS

The general Visual Arts programme consists of nine major subjects. Every student of Visual Arts is expected to study General Knowledge in Art and any two of the following options: One from group 'A' and one from group 'B'.

### Group A

Graphic design  
Picture Making  
Textiles

### Group B

Basketry  
Ceramics  
Leatherwork  
Jewellery  
Sculpture

A school may offer as many Visual Arts subjects as possible for which teachers and resources are available. This will provide the student with greater variety of art subjects to choose from. Each student of Visual Arts is expected to choose THREE art subjects: General Knowledge in Art (compulsory) and TWO other art subjects, ONE from **Group A** and the other ONE from **Group B** listed above.

## ORGANISATION OF THE SYLLABUS

The content has been structured to cover three years of Senior High School. Each year's work consists of a number of section and units. The organisation and structure of the Jewellery syllabus is presented on the next page.

**ORGANISATION AND STRUCTURE OF THE JEWELLERY SYLLABUS**

SHS 1	SHS 2	SHS 3
<p><b>SECTION 1: JEWELLERY AS A VOCATION (Page 1 – 6)</b></p> <p>Unit 1 Meaning of jewellery            Unit 2 Types and uses of jewellery            Unit 3 Importance of Jewellery as a field of study and vocation            Unit 4 The Jeweller and ethics of the profession</p>	<p><b>SECTION 1: PROFESSIONAL ETHICS AND ENTREPRENEURIAL PRACTICES - 1 (Page 23 - 30)</b></p> <p>Unit 1: Artist’s Portfolio            Unit 2: Business Plan            Unit 3: Branding and Packaging            Unit 4: Artist’s Statement, Brochure and Business Card            Unit 5: Exhibition</p>	<p><b>SECTION 1: ADVANCED JEWELLERY PRODUCTION TECHNIQUES (Page 47 – 48)</b></p> <p>Unit 1 Jewellery production and finishing using variety of techniques and materials            Unit 2 Application of jewellery finishing skills            Unit 3 Care and storage of jewellery items            Unit 4 Project report writing</p>
<p><b>SECTION 2: HISTORICAL BACKGROUND OF JEWELLERY (Page 7 – 8)</b></p> <p>Unit 1 Origin of jewellery            Unit 2 Usage of jewellery by early cultures            Unit 3 Symbolism in jewellery</p>	<p><b>SECTION 2: HISTORY OF JEWELLERY IN GHANA (Page 31 – 35)</b></p> <p>Unit 1 History and development of jewellery in Ghana            Unit 2 Jewellery producing and marketing centres            Unit 3 Contribution of jewellery towards development of Ghana            Unit 4 Glass, clay and stone bead production</p>	<p><b>SECTION 2: EXHIBITION AND ENTREPRENEURSHIP (Page 49 – 56)</b></p> <p>Unit 1 Entrepreneurial skills in practise</p>
<p><b>SECTION 3: EQUIPMENT TOOLS AND MATERIALS (Page 9 – 11)</b></p> <p>Unit 1 Types of tools and equipment            Unit 2 Preparation of tools            Unit 3 Sources of materials            Unit 4 Maintenance, care and storage, health and safety</p>	<p><b>SECTION 3: THE JEWELLERY WORKSHOP (Page 36 – 39)</b></p> <p>Unit 1 Tools and equipment            Unit 2 Organisation of the workshop            Unit 3 Packaging and handling</p>	<p><b>GLOSSARY – 57</b></p> <p><b>RECOMMENDED BOOKS – 59</b></p> <p><b>BASIC TOOLS - 60</b></p>

SHS 1	SHS 2	SHS 3
<p><b>SECTION 4: DESIGN AND TECHNOLOGY (Page 12 – 16)</b></p> <p>Unit 1 Meaning of design  Unit 2 Perceiving objects with the senses  Unit 3 Free-hand designing and drawing  Unit 4 The design and technology process  Unit 5 Computer Aided Designing</p>	<p><b>SECTION 4: BASIC METALWORK FOR JEWELLERY (Page 40 – 41)</b></p> <p>Unit 1 Metal preparation  Unit 2 Metal jewellery fabrication processes  Unit 3 Alloy calculation</p>	
<p><b>SECTION 5: DESIGN AND PRODUCTION OF JEWELLERY ITEMS (Page 17 – 19)</b></p> <p>Unit 1 Preliminary designs and idea development  Unit 2 Translating preliminary designs into final products  Unit 3 Exploring seeds, clay, bones, glass, beads for making jewellery</p>	<p><b>SECTION 5: METAL JEWELLERY DESIGN AND PRODUCTION (Page 42 – 45)</b></p> <p>Unit 1 Metal casting processes  Unit 2 Gemstones and usage</p>	
<p><b>SECTION 6: JEWELLERY FINISHING PROCESSES (Page 20 - 22)</b></p> <p>Unit 1 The need for finishing  Unit 2 Processes and techniques for finishing  Unit 3: Appreciation and Criticism</p>	<p><b>SECTION 6: JEWELLERY FOR SUSTAINABLE DEVELOPMENT (Page 46)</b></p> <p>Unit 1 The significance of sustainable development to society and the jewellery industry  Unit 2 Challenges of the jewellery industry</p>	

#### TIME ALLOCATION

Jewellery has a total time allocation of: 6 periods a week- 1st year  
6 periods a week- 2<sup>n</sup>d year  
6 periods a week- 3rd year

## SUGGESTIONS FOR TEACHING THE SYLLABUS

While teaching one art subject, reference may be made to relevant ideas in the other subjects of the Vocational Skills Programme as a whole. The assistance of local experts, artists, artisans, and elders may be sought where necessary. Knowledge acquired in the 'General Knowledge' section should be applied to activities in the other subjects. Consideration should be given to each practical activity as a problem-solving venture i.e. identifying a problem, researching, analysing, suggesting solutions, choosing appropriate solutions and producing an art work. 'The Principles of Product Design' as outlined in the General Knowledge Section should be applied when designing art works.

The syllabus has been planned in five columns consisting of Units, Specific Objectives, Content, Teaching and Learning Activities and Evaluation.

General Objectives: General objectives have been listed at the beginning of each section. The general objectives specify the skills and behaviours students should acquire as a result of having gone through instruction in the units of a section. Read the general objectives very carefully before you start teaching the units. After teaching all the units go back and read the general objectives again to be sure you have covered the general objectives adequately in your teaching.

Sections and Units: Each of the subjects represents a vocation. A year's work is divided into units, where a unit consists of a body of knowledge and skills that forms a logical aspect of the section.

Column 1 - Units: The Units in Column 1 provide the major topics. You are expected to follow the units/topics according to the linear order in which they have been presented. However, if you find at some point that teaching and learning of a unit 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 1.3.5 or 2.2.1. These numbers are referred to as "Syllabus Reference Numbers". The first digit in the syllabus reference number refers to the section; the second digit refers to the unit, while the third digit refers to the rank order of the specific objective. For instance, 1.3.5 means Section 1, Unit 3 and Specific Objective 5. In other words, 1.3.5 refers to Specific Objective 5 of Unit 3 of Section 1. Similarly, the syllabus reference number 2.2.1 simply means Specific Objective number 1 of Unit 2 of Section 2. Using syllabus reference numbers provides an easy way for communication among teachers and other educators. It further provides an easy way for selecting objectives for test construction. Let's say for instance, that Unit 2 of Section 2 has five specific objectives: 2.2.1 - 2.2.5. A teacher may want to base his/her test items/questions on objectives 2.2.3 and 2.2.4 and not use the other three objectives. In this way, a teacher would sample the objectives within the units of the section to be able to develop a test that accurately reflects the importance of the various objectives taught in class.

You will note also that specific objectives have been stated in terms of the student i.e., *what the student will be able to do after instruction and learning in the unit*. Each specific objective hence starts with the following, "The student will be able to." This in effect, means that you have to address the learning problems of each individual student. It means individualising your instruction as much as possible such that the majority of students will be able to master the objectives of each unit of the syllabus.

As has been said already, the order in which the unit 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 students will carry out during a particular lesson. Knowing the requirements of a lesson, the teacher should assemble the materials required for the activities well in advance. The collection of materials must be done by both the teacher and students. Other regular materials may be continually collected and stored to be used when needed. When materials are not available in the immediate environment, the teacher should try to contact persons in higher institutions and in the community for help.

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 more information to the content presented. In any case, try to find more information through reading and personal investigations, to add to the content provided.

The use of resource persons who are practitioners of the vocations of this syllabus will in many cases, help to provide your class with more information on each of the vocations than can be obtained from books and journals.

Column 4 -Teaching and Learning Activities (T/LA): T/LA that will ensure maximum student participation in the lessons are presented in Column 4. Try to avoid rote learning and drill-oriented methods and rather emphasise participatory teaching and learning, and also emphasise the cognitive, affective and psychomotor domains of knowledge in your instructional system wherever appropriate.

You are encouraged to re-order the suggested teaching and learning activities and also add to them where necessary in order to achieve optimum student learning. As we have implied already, the major purpose for teaching and learning is to make students able to apply their knowledge in dealing with issues both in and out of school. Students must be taught to be problem solvers. In this particular subject, students are expected to acquire valuable basic skills in selected vocations to serve as a foundation for further skill development.

As students begin work on the activities of each lesson, the teacher should serve as a facilitator and motivate the students in various ways to sustain their interest. As much as possible, professional people working in each of the vocations should be invited as resource persons to make presentations and demonstrations to the class. Visits to the workshops of practitioners of the various vocations contained in the syllabus are also encouraged.

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 (e.g., designing and drawing), essays, structured questions, project work etc. Try to ask questions and set tasks and assignments that will challenge your students to apply their knowledge to issues and problems, and that will engage them in creating new and original items, and developing positive attitudes as a result of having undergone instruction in this subject.

Evaluation should also include observation of processes pupils go through in performing various activities, and the products students make. Processes and products are both equally important and need observation, appreciation, appraisal and correction. The suggested evaluation tasks are not exhaustive. You are encouraged to develop other creative evaluation tasks to ensure that students have mastered the instruction and behaviours implied in the specific objectives of each unit.

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

## **PROFILE DIMENSIONS**

Profile dimensions describe the underlying behaviours or abilities students are expected to acquire as a result of having gone through a period of instruction. Each of the specific objectives in this syllabus contains an action verb that specifies the type of learning or skill that the student should acquire by the end of the instructional period. A specific objective as follows: The student will be able to describe ...etc. contains an action verb "describe" that indicates what the student will be able to do after teaching and learning have taken place. Being able to "describe" something after the instruction has been completed means that the student has acquired "knowledge". Being able to explain, summarise, give examples, etc. means that the student has understood the lesson taught. Similarly, being able to develop, plan, construct, etc. means that the student has learnt to innovate, create or synthesize knowledge. Each of the action verbs in the specific objectives of the syllabus describes the behaviour the student will be able to demonstrate after the instruction. "Knowledge", "Application", etc. are dimensions that should be the prime focus of teaching, learning and assessment in schools.

Jewellery is a practical subject and the learning required is best achieved by practical application of skills learnt. The profile dimensions required in this subject and their respective weights are as follows:

Knowledge and Understanding	15%
Application of Knowledge	25%
Practical 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 emphases that the teacher should give in the teaching, learning and testing processes at the Senior High School level. Combining the three dimensions in the teaching and learning process will ensure that Pre-Vocational Skills is taught and studied not only at the cognitive level, but will also ensure practical skill development on the part of students. Note that “practical skills” has been given 40% of the teaching and learning time to emphasize the point that the orientation in Vocational Skills is more toward the acquisition of practical vocational skills at the SHS level. The explanation of the key words involved in each of the profile dimensions is as follows:

### **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, creativity, innovation or synthesis, and evaluation. These may be considered and taught separately, paying attention to reflect each of them equally in your teaching. The dimension “Use 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, 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.

**Innovation/Creativity**        The ability to  
put parts together to form a new whole. It involves the ability to synthesize, combine, compile, compose, devise, suggest a new idea or possible ways, plan, revise, design, organize, create, and generate new solutions. The ability to create or innovate is the highest form of learning. The world becomes more comfortable because some people, based on their learning, generate new ideas, design and create new things.

**Evaluation**                        The ability to:  
appraise, compare features of different things and make comments or judgments, contrast, criticize, justify, support, discuss, conclude, make recommendations etc. Evaluation refers to the ability to judge the worth or value of some materials, ideas etc., based on some criteria. Evaluation is a constant decision making activity. We generally compare, appraise and select throughout the day. Every decision we make involves evaluation. Evaluation is a high level ability just as application, analysis and innovation or creativity since it goes beyond simple knowledge acquisition and understanding.



## ***Practical Skills (PS)***

Practical skills refer to the psychomotor domain. They involve demonstration of manipulative skills using tools/equipment and materials to carry out practical operations, to solve practical problems and to create and produce items. The teaching and assessment of practical skills should involve projects, case studies and creative practical tasks.

Skills required for effective practical work are the following:

1. Tools/Equipment/Materials Handling
2. Observation
3. Craftsmanship/Artisanship
4. Perception
5. Creativity
6. Communication

Tools/Equipment/Material Handling: Students should be able to handle and use tools/equipment/materials properly for practical vocational work. The teacher should ensure that students acquire a high level of proficiency in the use of tools, equipment and materials in their selected vocation(s).

Observation: The student should be able to use his/her senses to make accurate observation of skills and techniques during demonstrations. The student in this case should be able to accurately imitate the techniques he/she has observed for performing other tasks.

Craftsmanship/Artisanship: This involves the skilful and efficient handling of materials and tools for accomplishing specific tasks.

Perception: The students should be able to respond to his/her environment using all the senses i.e. seeing, hearing, smelling, touching, tasting and kinaesthetics. The student should be encouraged to apply these senses to every project he/she undertakes.

Originality/Creativity Students should be encouraged to be creative or original and be able to use new methods in carrying out projects. Encourage them to be original in making new items and not copy existing items/artefacts. You can help them to be creative and original by encouraging any little creative efforts, techniques and products they may develop.

Communication: Students should be guided to develop effective oral and written communication skills necessary for group work, reporting and appreciation etc.

The action verbs provided under the various profile dimensions should help you to structure your teaching such as to achieve the set objectives. Select from the action verbs provided for your teaching, in evaluating learning before, during and after the instruction. Use the action verbs also in writing your test questions. This will ensure that you give your student the chance to develop good thinking skills, and the capacity for excellent productive work. 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**

The table below on the next page shows the recommended examination structure for SHS1-3. The structure consists of two examination papers: Paper 1, Paper 2 and the SBA.

**Paper 1:** (3hours). Will consist of two sections; A and B and candidates will be required to answer all of them at one sitting.

**Section A:** There will be 30 multiple-choice items and candidates will be expected to answer all the questions for 30 marks.

**Section B:** Will consist of six (6) essay-type questions based on theory and practice from all areas of the subject. Candidates will be expected to choose and answer four (4) of them at one sitting for total marks of 50. One of the 4 questions chosen should be the compulsory question which will test knowledge and skills in perception, appreciation, criticism and judgement based on a photograph of an original art work in colour, a facsimile or real work (if possible). The compulsory question will be marked out of 20 and the remaining three marked out of 10 each.

**Paper 2: Practical Test:**

Paper 2 to be marked out of 130, will be the “practical” test paper and will require a student to choose one question from a number of practical questions. The practical questions will be sent to students/candidates **two weeks** before the practical examinations. The Preliminary Design and relevant notes will be tested on the first day of the Practical Examination. The preliminary design and notes, which should be attached to the finished work, will be marked out of 30, and the main practical test marked out of 100.

**DISTRIBUTION OF EXAMINATION PAPER WEIGHTS AND MARKS**

Dimensions	PAPER 1		PAPER 2 Practical Test	SBA	Total Marks	% Weight of Dimensions
	Section A (Objective Test)	Section B (Essay)				
Knowledge and Understanding	20	5		20	45	15
Application of Knowledge	10	45	-	25	80	25
Practical Skills	-	-	130	45	175	60
<b>Total Marks</b>	<b>30</b>	<b>50</b>	<b>130</b>	<b>90</b>	<b>300</b>	
% Contribution of Papers	10	15	45	30		100

The total marks for the examination including 90 for the SBA will be 300 marks. You will note in the last row that Paper 1 A has a contribution of 10% to the total marks; Paper 1B has a contribution of 15% to the total marks; Paper 2 has a contribution of 45%, and School Based Assessment has a contribution of 30% to the total marks. The three test papers are weighted differently to reflect their individual importance in the total examination. The numbers in the cells indicate the marks to be allocated to the items/questions that test each of the dimensions within the respective test papers. The practical test paper is the most important paper at the SHS level and therefore has more weight and more marks.

Note that the numbers in the columns are additions of the numbers in the cells and they agree approximately with the profile dimension weights indicated in the last column and with the percentage contribution of each of the papers in the last row.

Of the total marks of 300, 45 total marks, equals the 15% weight of “Knowledge and Understanding”; 80 marks out of the total 300 is approximately equal to the 25% weight of “Application of Knowledge”; and the total marks of 175 is approximately equal to the profile dimension weight of 60 for “Practical Skills”. The weight of each of the three dimensions is indicated in the last column. The ratio of theory to practice in Visual Art is 40:60

### **Assessing Practical Work**

The practical test is very important since Visual Art is practically oriented, and an actual practical test should therefore be conducted in addition to SBA and the test of theory. Assessment of the products/artefacts of leatherwork will follow these guidelines:

Originality	30%
Design	20%
Suitability	10%
Craftsmanship	40%

The above shows the qualities the teacher should look for in a product and the percentage marks to be awarded each quality. (See Guidelines for SBA below for details)

### **What to look for in an Art work Evaluation:**

The following may be used as a checklist of what to look for in an artwork evaluation:

- a) creativity, originality, innovation;
- b) Use of media, tools and materials
- c) Design: composition of elements and principles
- d) Technical competence: draughtsmanship and craftsmanship
- e) Uses, relevance and suitability of artefact to society/community

### **GUIDELINES FOR SCHOOL-BASED ASSESSMENT (SBA)**

A new School Based Assessment system (SBA) will be introduced into the school system in 2011. The new SBA system is designed to provide schools with an internal assessment system that will help schools to achieve the following purposes:

- Standardize the practice of internal school-based assessment in all Senior High Schools in the country
- Provide reduced assessment tasks for subjects studied at SHS
- Provide teachers with guidelines for constructing assessment items/questions and other assessment tasks
- Introduce standards of achievement in each subject and in each SHS class
- Provide guidance in marking and grading of test items/questions and other assessment tasks
- Introduce a system of moderation that will ensure accuracy and reliability of teachers’ marks
- Provide teachers with advice on how to conduct remedial instruction on difficult areas of the syllabus to improve class performance.

The arrangement for SBA may be grouped in categories as follows. Folio Preparation, Project designed to include folio preparation, Mid-Term test, Group Exercise and End of Term Examination.

1. Folio Preparation: Folio preparation may include the following:
  - i. Specific Design
  - ii. Investigative study and field visit reports.
2. Project: This will consist of a selected topic to be carried out by groups of students for a year. Segments of the project will be carried out each term toward the final project completion at the end of the year,

Knowledge and Competence in Core Skills and Options: In marking project work, note that for a student to earn Grade A, the project output must show a combination of knowledge and skill in the student's selected option and in at least one of the other two options. Grade A should therefore be reserved for only outstanding work that combines knowledge and skill in at least two of the optional areas.

Practical activities should be used in both School-Based Assessment (SBA) and in the end-of-term examination. The practical assessment should cover:

- (a) Processes
- (b) Products.
- (c) Response

Assessment of processes: Look for creative and critical thinking, originality of ideas in the work; the design, correct handling and use of equipment, tools and materials. The degree of involvement, attitude to the work (including group work), understanding of the process, procedure, techniques and problem solving ability of the students must also be assessed.

Assessment of end product: The following preliminary question will be helpful when assessing an end product as a requirement for a lesson, task, activity/exercise: Is the student able to compose, develop, perform, stitch, draw and paint as required by the objectives? Assessment of finished products or performance also includes the students' verbal response or discussion/comments about the work/performance.

Theory and Practicals: Assessment of the theory and practical aspects of each option should be weighted 40:60 to reflect the importance of the practical nature of the options.

3. Mid-Term Test: The mid-term test following a prescribed format will form part of the SBA
4. Group Exercise: This will consist of written assignments or practical work on a topic(s) considered important or complicated in the term's syllabus
5. End-of-Term Examination: The end-of-term test is a summative assessment system and should consist of the knowledge and skills students have acquired in the term. The end-of-term test for Term 3 for example, should be composed of items/questions based on the specific objectives studied over the three terms, using a different weighting system such as to reflect the importance of the work done in each term in appropriate proportions. For example, a teacher may build an End-of-Term 3 test in such a way that it would consist of the 20% of the objectives studied in Term 1, 20% of objectives studied in Term 2 and 60% of the objectives studied in Term 3.

## **Suggested Procedures for Art Appreciation, Criticism and Judgement:**

For each work produced by the student, appreciation should be conducted as follows:

Appreciation: It can be explained as the full awareness of all the good qualities in an artwork as well as in what we see, read and hear. Appreciation which can also be explained as an intelligent talk about a basketry work of art requires the application of knowledge and skills in perception, thinking, aesthetics and art in general.

Art Appreciation Criticism And Judgement: The concept can be explained simply as an organized system for studying and talking about a work of art or (artwork).

Purpose And Importance: An art appreciation, criticism and judgement enables the artist or viewer to:

- build his/her perceptual skills
- form an opinion to judge the merits of an artwork
- determine whether an artwork is successful or effective
- think carefully, critically and organise his/her thoughts
- describe, analyse, interpret, criticize/judge or evaluate a work of art with confidence
- make sound aesthetic judgements
- develop better understanding and appreciation of all types and styles of artwork
- make ones aesthetic and personal interaction or response to an artwork meaningful and memorable
- apply critical thinking, expressive and aesthetic criteria to improve own art works

### Steps/Procedure In Art Appreciation and Criticism

Step 1: Identification and Description: This procedure involves listing and determining the physical characteristics and basic facts about the artwork eg. name, title, size of work, date, medium, etc.

Step 2: Analysis: It is concerned with dissecting the artwork into constituent parts. It involves collecting facts, the technical qualities of the work as well as paying attention to aspects of the work that are obvious or easily recognized and classified. It covers three components namely:

- (a) analysis of the elements and principles of design, composition and how they are organized to make the artwork eg. balance, unity, rhythm, etc.
- (b) analysis of relationship among parts and determining the major connections amongst aspects of the artwork.
- (c) analysis of parts of the whole is done by explicating how the various parts and their relationship fuse to form the expressive content of the artwork.

Step 3 Interpretation: It seeks to find out what the artist is saying or communicating or the meaning of the artwork. It is concerned with the cultural, social a economic or religious significance of the work. It also involves the determination of aspects of the work which are essential or irrelevant to the meaning of the subject matter in the context of the work. Interpretation is based on the perception and experience of the viewer as well as the facts and clues from description and analysis.

Step 4 Judgement: This is concerned with passing judgement; whether the work is successful or effective or the artistic merit of the work. It also involves giving honest opinion of what one likes or dislikes, the reasons and judgement about the work. Judgement attempts to answer the question of whether the work is successful/effective or not by applying understanding of theories of aesthetics.

Aesthetic Theories: Aesthetics is the philosophy and study of the nature of beauty and arts. Three types of aesthetic theories are:

- (a) Imitation and Liberal Qualities: It focuses on realist presentation of the subject matter or an imitation of life or what one sees in real world.
- (b) Formalism and Design Qualities: It emphasizes the design qualities; focusing on the arrangement of the elements using principles of design or composition.
- (c) Emotionalism And Expressive Experience: It is concerned with the content of the work of art and the nature of artwork to convey a message to the viewer. Emotionalism requires a strong communication, feeling; mood or ideas from the work to the viewer.  
**NOTE:** One or more of the aesthetic theories can be used to judge on artwork depending on the type and purpose. If one limits oneself to only one theories to appreciate and criticize an artwork, some unique or interesting aspects may not be discovered. Using the three is the best approach.

Art Evaluation: Evaluation in art can also be explained as the making a judgement about the aesthetic quality and values of the work of art. This judgement is based on ones:

- perception
- analysis
- application of reliable aesthetic criteria for making critical judgement.

A systematic evaluation criteria which is considered adequate for judgement in art covers the:

- degree of internal relatedness and cohesion within the work of art
- the fusion and vividness of one's experience within the work of art
- the degree to which the work of art represents a norm; reflects the expression of a culture and is true to the use of elements and principles of design; media and techniques.

Judging Functional Objects: Judging a functional artwork such as a woven basket or hat requires the application of the procedure in appreciation and criticism eg. eg. identification, description, analysis, interpretation. One must also use what is considered as empirical evaluation criteria. It takes into consideration how the object functions or serves the purpose for which it was made. Empirical evaluation criteria which is also described as "extra aesthetic," considers both the functional and aesthetic features of the work. For example, a shopping basket may be beautiful but not comfortable or useful because it has no handle for lifting or carrying it when filled with goods.

When students produce art works, attention should be paid to the following:

- a) identification, discussion, care and testing of tools and materials;
- b) preliminary designing and sketch-models;
- c) translation of designs and sketch-models into art works;
- d) construction of the articles;
- e) decoration and finishing;
- f) discussion of uses/relevance of the article(s).

## GRADING PROCEDURE

To improve assessment and grading and also introduce uniformity in schools, it is recommended that schools adopt the following WASSCE grade structure for assigning grades on students' test results. The WASSCE structure is as follows:

Grade A1:	80 - 100%	-	Excellent
Grade B2:	70 - 79%	-	Very Good
Grade B3:	60 - 69%	-	Good
Grade C4:	55 - 59%	-	Credit
Grade C5:	50 - 54%	-	Credit
Grade C6:	45 - 49%	-	Credit
Grade D7:	40 - 44%	-	Pass
Grade D8:	35 - 39%	-	Pass
Grade F9:	34% and below	-	Fail

In assigning grades to students' test results, you are encouraged to apply the above grade boundaries and the descriptors which indicate the meaning of each grade. The grade boundaries i.e., 60-69%, 50-54% etc., are the grade cut-off scores. For instance, the grade cut-off score for B2 grade is 70-79% in the example. When you adopt a fixed cut-off score grading system as in this example, you are using the criterion-referenced grading system. By this system a student must make a specified score to be awarded the requisite grade. This system of grading challenges students to study harder to earn better grades. It is hence a very useful system for grading achievement tests.

Always remember to develop and use a marking scheme for marking your class examination scripts. A marking scheme consists of the points for the best answer you expect for each question, and the marks allocated for each point raised by the student as well as the total marks for the question. For instance, if a question carries 20 marks and you expect 6 points in the best answer, you could allocate 3 marks or part of it (depending upon the quality of the points raised by the student) to each point, hence totalling 18 marks, and then give the remaining 2 marks or part of it for organization of answer. For objective test papers you may develop an answer key to speed up the marking.

# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 1

### JEWELLERY AS A VOCATION

**General Objectives:** The student will:

1. know the meaning of jewellery and become aware of its profitability as a vocation with social, educational and economic importance.
2. understand and be able to explain the role of the jewellery practitioner and society's expectations of the jewellery practitioner.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>MEANING OF JEWELLERY</b>	The student will be able to:  1.1.1 explain the terms: <ul style="list-style-type: none"> <li>• Vocation</li> <li>• Profession</li> <li>• Occupation</li> </ul>  1.1.2 explain the term jewellery.	<p><u>Vocation</u>: A calling, a career to which a person feels he/she is called; a line of work in which one is very interested or is passionate about.</p> <p><u>Vocational training</u>: Training for a job usually in the trades; secretarial work, carpentry, tailoring, etc.</p> <p><u>Profession</u>: An occupation that requires advanced education and specialised training: e.g. teacher, medical doctor, lawyer, architect, jeweller, nurse etc.</p> <p><u>Occupation</u>: A job or activity that a person engages in for an income.</p> <p><u>The Meaning of Jewellery</u>: A collective term for ornaments such as ear rings, necklaces, brooches and rings purposefully made to adorn the body and usually made of valuable metals and other materials that may be natural or man-made.</p>	Assist students to: <ul style="list-style-type: none"> <li>- brainstorm to bring out the various meanings, similarities, differences among the terms vocation, profession and occupation.</li> <li>- give examples of vocations occupations and professions in Ghana and globally.</li> <li>- arrange a collection of both indigenous and foreign types.</li> <li>- observe and examine the collection</li> <li>- brainstorm to bring out the meaning of the term jewellery.</li> </ul> <p><u>NOTE</u>: Students can make use of practitioners, ICT (internet) and library facilities to seek information.</p>	Student to: <ul style="list-style-type: none"> <li>- give acceptable meanings of the terms and explain the duties of the various professions.</li> <li>- write short but researched essay on meaning of jewellery.</li> </ul>





UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 2 (CONT'D)</b></p> <p><b>(b) Various types and usage of Jewellery</b></p>	<p>The student will be able to:</p> <p>1.2.3 describe the various occasions and uses of jewellery.</p> <p>1.2.4 prepare and make simple paper-beads through exploration of possible forms, shapes, colours and textures.</p>	<p>Socio-cultural uses of jewellery for children, adults, chiefs, religious leaders, etc.</p> <p>Occasion and uses</p> <p>Social :</p> <ul style="list-style-type: none"> <li>- body adornment</li> <li>- status differentiation</li> <li>- identification</li> <li>- communication</li> </ul> <p>Economic :</p> <ul style="list-style-type: none"> <li>- store of wealth</li> <li>- exchange of value</li> </ul> <p>Religious and cultural:</p> <ul style="list-style-type: none"> <li>- symbols of office</li> <li>- regalia</li> <li>- charms and talismans</li> </ul> <ul style="list-style-type: none"> <li>- characteristics of various types of jewellery</li> </ul> <p>Preparation and making of simple paper-beads.</p> <ul style="list-style-type: none"> <li>- cutting, rolling, shaping, gluing/pasting, lacquering and threading finishing.</li> </ul>	<ul style="list-style-type: none"> <li>- discuss types of jewellery used by children, chiefs, religious leaders, political leaders, etc.</li> <li>- discuss the uses and relevance of jewellery for different occasions such as funerals, weddings, religious and traditional festivals and durbars etc.</li> <li>- organise visits to durbars, festivals and other such functions to observe Jewellery worn by different people.</li> <li>- discuss the colour, texture, shape and forms of jewellery worn for different occasions and functions.</li> </ul> <ul style="list-style-type: none"> <li>- prepare and make simple paper beads.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- do a case study on the uses of jewellery in the community, write and present group reports.</li> <li>- give reasons for the differences observed in the shapes, colours, sizes and textures of jewellery.</li> <li>- display the different items of jewellery observed and photographed and identify them by name, material and function.</li> </ul> <ul style="list-style-type: none"> <li>- design and make paper jewellery - to decorate a baby, a queen mother or a teenager girl in your community.</li> </ul> <p>display items for assessment in terms of function and beauty.</p>



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3 (CONT'D)</b></p> <p><b>IMPORTANCE OF JEWELLERY AS A FIELD OF STUDY AND VOCATION</b></p>	<p>The student will be able to:</p> <p>1.3.3 identify various career options in the jewellery industry</p> <p>1.3.4 describe job training opportunities in jewellery.</p>	<ul style="list-style-type: none"> <li>- Availability of natural and human resources as well as institutions or places for learning or apprenticeship</li> <li>- Patronage/market for jewellery items.</li> <li>- Social-educational cultural, artistic and Economic importance of jewellery.</li> <li>- Jewellery promoting/preserving and transmitting Ghanaian culture.</li> <li>- Jewellery as visual art activity for for creativity, self-expression etc.</li> <li>- jewellery making impart skills that can be transferred to other areas.</li> <li>- some career options: designer, gem setter, lapidary, teacher, engraver, die-maker, caster etcher etc.</li> </ul> <p>Avenues for jewellery training in Ghana.</p> <p><b>Training Institutions</b></p> <ol style="list-style-type: none"> <li>i. KNUST, Industrial Art Department</li> <li>ii. Formal and Informal Apprenticeship under jewellery practitioners</li> <li>iii. Pre-training offered by Senior High School jewellery course.</li> </ol>	<p>Nomoda E. Djaba - Cedi Beads, Krobo-Odumase</p> <p>Florence Martey - T.K. Beads, Krobo-Odumase</p> <p>Katy Dagadu - Asylum Down, Accra</p> <p>Mumuni Musah - Bead Dealer, Agbogbloshie, Accra</p> <p>Irene Prah - Irene's Jewellery, Ridge</p> <p>Apim Tetteh - Emefa Jewellery Production, Haatso, Accra</p> <p>Kuamoah - Nouveau Bijoux, Accra</p> <p>Discuss other areas in which jewellery making skills can be applied, e.g. polishing and lacquering of furniture etc.</p> <p>Discuss various career options in the jewellery.</p> <p>- discuss avenues for training in jewellery and the access to such avenues: e.g. admission procedure, - organise excursion to such facilities or institutions.</p>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- mention and write notes on jewellery and jewellers.</li> <li>- write a researched essay on the economic importance of jewellery.</li> <li>- research into career options and indicate possible choice based on interest.</li> <li>- investigate and publish in a school newsletter, the qualification, competences, attitudes required for further education or occupational training. in jewellery.</li> </ul>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 4</b>  <b>THE JEWELLER AND ETHICS OF THE PROFESSION</b>	<p>The student will be able to:</p> <p>1.4.1 determine qualities and attributes of a good jeweller.</p> <p>1.4.2 identify and abide by the ethics of the jewellery profession.</p>	<p>Determining qualities of a good jeweller Building acceptable qualities in the jewellery student.</p> <p><u>Negative traits</u> cheating e.g. under-carating, dishonesty, ignorance, misrepresentation etc.</p> <p><u>Positive traits</u> 1. creativity, dedication, commitment, interest, zeal, skilfulness (proficiency/ dexterity), determination and patriotism. 2. moral and human values eg. self-discipline/respect, tolerance, patience 3. time-management, work ethics, Communication skills. 4. human-relation, healthy competition, etc.</p>	<p>Guide students to:</p> <ul style="list-style-type: none"> <li>- discuss good qualities and attributes expected of a jewellery student e.g. neatness, honesty, punctuality, etc.</li> <li>- brainstorm on negative conducts and practices of jewellers and the consequent effects on the industry and practitioners e.g. dishonesty, lack of commitment, tax evasion, lack of skills upgrade, etc.</li> </ul> <p><u>NOTE:</u> Guide, support and encourage students to acquire skills and competencies as well as inculcate human values, and demonstrate them in performing tasks in class, school and life.</p> <ul style="list-style-type: none"> <li>- students to set rules and regulations, sanctions for class activities and moral behaviour.</li> <li>- Include observation of behaviour in their assessment.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- source for information from books, internet , experts and write an essay on qualities of a good jeweller.</li> <li>- debate between two groups on the effects of some negative qualities as against good qualities of jewellers in the jewellery industry.</li> <li>- document rules and regulations on a chart and mount on wall in the classroom.</li> </ul>

# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 2

### HISTORICAL BACKGROUND OF JEWELLERY

**General Objectives:** The student will:

1. explore and trace the basis of early jewellery
2. understand jewellery as an art form and relate it to human values and culture
3. be aware and apply the Ghanaian concept of symbolism in jewellery.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>ORIGIN OF JEWELLERY</b>	The student will be able to:  2.1.1 trace the origin of early jewellery.	The origin of jewellery:  How early men started making jewellery.	Guide students to:  - discuss the early types of jewellery used by early cultures and the materials used.	Student to:  - locate areas of the world, where jewellery making started.
<b>UNIT 2</b>  <b>USAGE OF JEWELLERY BY EARLY CULTURES</b>	2.2.1 describe the purpose and usage of jewellery among ancient world cultures.   2..2.2 design and make jewellery items by exploring and using natural materials.	Usage and purpose of jewellery by ancient cultures such as Ancient Egyptian, Aztec, Inca, etc.   The making of jewellery using natural objects e.g. seeds, calabash, bones, etc.	- discuss how ancient man began using jewellery and the purpose for which it was used.   - prepare and make sample jewellery items using seed/ calabash/ bones, etc.	- mention and describe the purpose and use of jewellery in ancient cultures.  - write a short essay on how and why ancient man began using jewellery.  - display and assess jewellery items made.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3</b></p> <p><b>SYMBOLISM IN JEWELLERY</b></p>	<p>The student will be able to:</p> <p>2.3.1 identify symbols, imagery colours and textures used on jewellery items in Ghana.</p> <p>2.3.2 design and create their own symbols for jewellery to satisfy their needs.</p>	<p>Meaning of symbolism.</p> <p><u>Symbolism:</u> The use of imagery, signs and/or objects to represent ideas, axioms, adage, proverbs, etc.</p> <p>Colour symbolism in Ghanaian culture: Significance of colour: e.g. white, black, brown, red, yellow, blue etc. in Ghanaian culture.</p> <p><b>NOTE:</b> Students to apply knowledge and skills colour and symbolism in Ghanaian art from General Knowledge in Art.</p> <p>Designing and creating symbols.</p> <ul style="list-style-type: none"> <li>- using man-made and natural environment as source of ideas and inspirations.</li> <li>- modifying existing symbols</li> <li>- applying knowledge in designing, idea development, DTP, colour work, etc.</li> </ul>	<p>Assist students to:</p> <ul style="list-style-type: none"> <li>- assemble various items which have symbols, imagery, colours, etc. on them and discuss their significance.</li> <li>- identify various symbols, imagery and colours used for jewellery and discuss their meaning, value and uses e.g. Adinkra symbols, canoe symbols, stools, umbrella tops, Asafo flag imagery, etc.</li> <li>- identify and discuss colour-symbolism associated with jewellery and events like death, funeral, out-dooring, baptism, durbars, marriage, victory, etc.</li> <li>- discuss existing symbols and how to create new symbols to satisfy a need/purpose</li> <li>- design and create meaningful symbols for jewellery.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- identify and appraise the elements, principles, ideas and colours in the symbols.</li> <li>- find out and prepare charts of local symbols and explain their meanings and uses.</li> <li>- write and present essay on colour symbolism in Ghanaian society.</li> <li>- design and create social and cultural symbols suitable for jewellery.</li> </ul>

# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 3

### EQUIPMENT, TOOLS AND MATERIALS

**General Objectives:** The student will:

1. acquire knowledge and dexterity in the preparation and use of tools, equipment and materials.
2. understand the functions of tools and equipment and be able to care for, maintain and store them properly.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>TYPES OF TOOLS AND EQUIPMENT</b>	The student will be able to:  3.1.1 categorise various tools and equipment for jewellery making according to characteristics and uses.	Categorisation of tools and equipment  Identification, naming, description, categorisation of tools and equipment, according to functions/uses and characteristics.  <ul style="list-style-type: none"> <li>- cutting tools e.g. knife, shears</li> <li>- soldering tools e.g. torch</li> <li>- forming tools e.g. mandrel, pliers</li> <li>- decorating tools e.g. gravers and punches</li> <li>- shaping tools e.g. hammers</li> <li>- polishing tools and equipment e.g. burnishing tool, polishing motor, etc.</li> </ul>	Assist students to:  <ul style="list-style-type: none"> <li>- identify, describe and categorise tools.</li> <li>- discuss the use of each tool and equipment.</li> <li>- categorise tools and equipment according to use and characteristics.</li> <li>- utilise tools to perform basic tasks</li> </ul>	Student to:  <ul style="list-style-type: none"> <li>- draw and describe six jewellery making tools.</li> <li>- prepare an illustrated and labelled chart showing classification or categorisation of tools according to uses and characteristics.</li> <li>- classify jewellery making tools and equipment, on a chart, according to use and characteristics.</li> </ul>



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 2</b></p> <p><b>PREPARATION OF TOOLS</b></p> <p><b>UNIT 3</b></p> <p><b>SOURCES OF MATERIALS</b></p>	<p>The student will be able to:</p> <p>3.2.1 select simple tools for use and prepare them for making jewellery.</p> <p>3.3.1 determine the sources characteristics, and suitability of materials.</p> <p>3.3.2 appreciate the health and safety considerations when handling materials</p> <p>3.3.3 prepare clay/bamboo for making beads.</p>	<p>Selecting and preparing simple tools such as knife, bow-drill, file, bodkin, punches, etc.</p> <p>Sources, characteristics and suitability of materials:</p> <ul style="list-style-type: none"> <li>- plant sources e.g. seeds, wood, paper, gourd, straw, fabrics, etc.</li> <li>- animal sources e.g. shells, bones, leather, cowries, horns, hooves, ivory, etc.</li> <li>- mineral sources: e.g. gold, silver, rock pebbles, gemstones e.g. amethyst, ruby etc.</li> </ul> <p>Handling of petroleum based materials e.g. polythene and other plastics, with care. Avoiding over-heating of plastics and plastic fumes. <b>Use protective gear</b></p> <p>Preparation of clay/bamboo for making beads.</p>	<p>Assist students to:</p> <ul style="list-style-type: none"> <li>- select, prepare, test and handle tools used for making jewellery.</li> <li>- explore the environment and collect suitable materials from different sources for jewellery.</li> <li>- identify classify and discuss sources of materials: Plants Animals Minerals Man-made/synthetic</li> <li>- discuss the characteristics and suitability of each of the materials.</li> <li>- discuss the importance of using materials that are environmentally friendly e.g. clay, cardboard, wood, bones, etc. instead of toxic materials e.g. lead.</li> <li>- prepare clay and bamboo to make beads.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- select and prepare jewellery tools and test them for functionality and efficiency.</li> <li>- identify and describe different materials (natural and man-made) for jewellery.</li> <li>- classify materials according to their sources.</li> <li>- describe characteristics of materials in terms of shape, size, texture, colour, weight, hardness, durability, etc.</li> <li>- prepare a chart showing a classification of materials according to sources, characteristics and suitability.</li> <li>- display finished work for discussion and assessment.</li> </ul>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 4</b>  <b>MAINTENANCE, CARE AND STORAGE, HEALTH AND SAFETY</b>	<p>The student will be able to:</p> <p>3.4.1 describe ways of caring for, storing and safe handling of jewellery making tools, equipment and materials.</p> <p>3.4.2 take care and observe safety precautions while working in the jewellery workshop</p>	<p>Use, care, maintenance and storage of equipment, tools and materials.</p> <p>Segregation of reactive materials e.g. acids, alkalis, electroplating salts and solutions, metals etc.</p> <p>Rust-proofing and anti rust measures, e.g. drying, oiling, greasing etc.</p> <p>Safety and health considerations in the workshop/studio.</p>	<p>Guide students to:</p> <ul style="list-style-type: none"> <li>- discuss the various ways of maintaining, caring for and storing jewellery making tools and materials</li> <li>- identify protective and precautionary measures to be taken while making jewellery e.g. wearing of gloves, goggles, nose protectors, etc.</li> <li>- organise visits to jewellery centres to observe and study care, safety and maintenance procedures.</li> </ul> <p><u>NOTE:</u> Access information on materials and safety issues from the internet, books and journals.</p> <p>Example:www.osha.gov Always consult Material Safety and Data Sheet (MSDS).</p>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- write an essay on how jewellery tools are to be maintained and used safely.</li> <li>- write an essay on how to maintain a safe work environment in the workshop.</li> </ul>

# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 4

### DESIGN AND TECHNOLOGY

**General Objectives:** The student will:

1. understand the meaning of design and technology, and the principles and elements of design.
2. execute free hand as well as computer assisted designs for jewellery items, by applying principles and elements of design using DTP.
3. develop the skills attitudes and interest to build a personal portfolio or album of work.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>MEANING OF DESIGN</b>	The student will be able to:  4.1.1 explain the meaning of design.  4.1.2 apply the elements and principles of design using various techniques such as drawing, spraying, print - making cutting, joining, pasting, etc.  4.1.3 organise the elements according to principles by using different materials and techniques.	<p><b>Meaning of design:</b> making a drawing, sketch, plan or layout of something to be made: - arranging and organising elements of design according to certain principles.</p> <p><b>Elements of design:</b> - dot, line, shape, texture, colour, space,</p> <p><b>Principles of design</b> - creating and organising the elements according to principles e.g. contrast, balance, harmony, variety, etc. in the natural and man-made environment</p>	<p>Guide students to:</p> <ul style="list-style-type: none"> <li>- discuss the meaning of design and give practical examples of good and bad design.</li> <li>- identify and discuss the elements and principles of design.</li> <li>- explore the environment to identify natural and man-made objects, depicting elements and principles of design and classify them.</li> </ul> <p>Explore the environment to identify the organisation of elements according to principles in the natural and man-made environment.</p> <p>Demonstrate how to create and organise them according to principles using various techniques and materials.</p>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- explain the meaning of design in his/her own words verbally and by writing.</li> <li>- list elements and principles and match them with natural and man-made objects, depicting them.</li> <li>- create the elements of design using different techniques and materials.</li> <li>- create and organise 4 elements according to 5 principles of design using different materials and techniques.</li> </ul>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2</b>  <b>PERCEIVING OBJECTS WITH THE SENSES</b>	<p>The student will be able to:</p> <p>4.2.1 draw objects using the senses.</p> <p>4.2.2 sketch outline of objects with perceptive skills, tools and materials.</p>	<p><b>Perception of objects:</b>  Seeing, observing, tasting, smelling, touching, hearing.</p> <ul style="list-style-type: none"> <li>- seeing, observation: sight (eye); shape, colour, size, etc.</li> <li>- touching (skin): feeling, hardness, softness, coldness, hotness, texture, etc.</li> <li>- tasting (tongue): bitter, sweet, sour, etc.</li> <li>- kinaesthetic (muscle): lifting, hefting to feel the weight, heaviness, etc.</li> <li>- hearing (ear): sound, rhythm.</li> <li>- smelling (nose): sweet scented, rotten, pungent.</li> </ul> <p>Sketching the outline of objects, using perceptive skills and appropriate tools and materials.</p> <p><b>Tools and materials:</b></p> <ul style="list-style-type: none"> <li>- pen</li> <li>- pencil</li> <li>- paper</li> <li>- crayon</li> <li>- ink</li> <li>- brush</li> <li>- charcoal, etc.</li> </ul>	<p>Guide students to:</p> <ul style="list-style-type: none"> <li>- discuss and demonstrate how objects are perceived, using the senses.</li> <li>- use senses to draw objects (see content).</li> </ul> <p>Demonstrate how to draw outlines of objects for students to practise:</p> <ul style="list-style-type: none"> <li>- critical observation of objects.</li> <li>- effective use of the senses.</li> <li>- keeping the eye on the object while moving the tool on the paper to form the outline on the paper.</li> </ul> <p>Guide students to draw outlines of natural and artificial objects e.g. natural and artificial objects; fruits, seeds, pods, shells, twigs, boxes, bags, etc.</p>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- apply the senses in drawing objects and analyse outcome.</li> <li>- make outline drawing of objects and assess outcome.</li> </ul>
<b>UNIT 3</b>  <b>FREE HAND DESIGNING AND DRAWING</b>	<p>4.3.1 design items by free hand, using the principles and elements of design.</p>	<p>Free hand designing and sketching.</p> <p>Application of the requirements of principles and elements in jewellery making.</p>	<ul style="list-style-type: none"> <li>- make free hand designs that capture the requirements of a good sketch design in terms of proportion, balance, harmony, contrast, colour, etc.</li> <li>- discuss the free hand designs to find out the extent to which the designs embody all the requirements of a good jewellery design.</li> </ul>	<ul style="list-style-type: none"> <li>- make free-hand design of a jewellery item to satisfy the need of a visitor or tourist.</li> </ul>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 4</b>  <b>THE DESIGN AND TECHNOLOGY PROCESS</b>	4.4.1 Analyse the Design and Technology Process for solving problems in jewellery production, through the use of learning and innovative skills.	<p>Importance of the Design and Technology Process.</p> <p>The concept of " technology" explained as coming from the Greek word "technologia" where Techno (Techne) refers to: -an art, skill and craft and Logia:-the study of something or branch of a discipline.</p> <p>Technology can thus be explained as the usage of knowledge, tools, techniques, skills and systems or methods to make products or provide services to solve societal problems and needs.</p> <p>The Design and Technology Process:</p> <ol style="list-style-type: none"> <li>1. The problem / need – the problem or need for an item for adornment of the body e.g. neck.</li> <li>2. Define and specify (explain) the problem or need e.g. a necklace to be worn by students during Speech and Prize giving days.</li> <li>3. Investigate, safety, finish, cultural, social and design elements.</li> <li>4. (a) Suggest possible solutions by observing, studying the design forms of objects elements and principles, patterns, shapes in the</li> </ol>	<p>Guide student to:</p> <ul style="list-style-type: none"> <li>-discuss the concept and importance of the Design and Technology Process (DTP)</li> <li>-describe the various steps in DTP in relation to problem solving activities used in the creation of items of jewellery.</li> </ul>	<p>Student to:</p> <p>Prepare a researched and illustrated essay either agreeing or disagreeing with the statement that " the design process is applicable to developing creative and innovative thinking in making jewellery items to satisfy societal needs".</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 4 (CONT'D)</b>  <b>THE DESIGN AND TECHNOLOGY PROCESS</b>		<p>natural and made-made environments.</p> <p>(b) Pre-imaging/visualising and developing ideas, making drawings of possible shapes or forms considering elements and principles of design, function, beauty etc.</p> <p>5. Model: Make a model or miniatures from paper or other suitable materials (preliminary design).</p> <p>6. Working Drawing: Prepare working drawing.</p> <p>7. Use appropriate tools, materials and techniques to make the final item to solve the problem or satisfy the need.</p> <p>8. Appraisal/evaluation: Trial-testing for suitability/functionality, the purpose, cost etc. and for modification.</p>		

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 5</b>  <b>COMPUTER AIDED DESIGNING</b>	4.5.1 design items of jewellery, using computer software.	Introduction to Computer Aided Design (CAD) software for two and three dimensional designs. e.g. CorelDraw, Matrix, Rhino, JewelCad, etc.	Assist student to: <ul style="list-style-type: none"> <li>- practise drawing and designing of jewellery items on the computer, using appropriate software. (refer to content).</li> <li>- show and discuss computer generated designs and appraise the suitability of such designs for jewellery especially its use for rapid prototyping</li> </ul>	Student to: <ul style="list-style-type: none"> <li>- make a computer aided design of an intended item for the best behaved students in class.</li> </ul>

# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 5

### DESIGN AND PRODUCTION OF JEWELLERY ITEMS

**General Objectives:** The student will:

1. apply basic skills in ICT and designing for jewellery.
2. acquire skills in translating designs into models and final products.
3. develop skills and values for appreciating and evaluating jewellery.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>PRELIMINARY DESIGNS AND IDEA DEVELOPMENT</b>	The student will be able to:  5.1.1 explain the meaning and importance of preliminary design and idea development.  5.1.2 explain the importance of preliminary design and idea development.	Definition of:  <u>Preliminary Design</u> A plan in the form of sketches etc. subject to elimination, made to facilitate the making of a product. <u>Idea Development</u> The processes such as research, sketching, rendering, modelling, testing etc. that designers employ to satisfy the functional and aesthetic requirements of a product before it is finally made.  Importance of preliminary design and idea development.  They provide: - end product in view (visualisation) - adequate planning and preparation - the selection of interesting designs - prevention of wastage - precision and finishing - opportunity for use of elements and principles of design - for a timely execution of project	Guide students to:  - brainstorm to bring up the various meanings, similarities, differences among the terms preliminary designing and idea development (library and internet research).  <u>NOTE:</u> Preliminary designs or idea development can be done by drawing, modelling and written notes.  - discuss the importance of preliminary design and idea development in the production of jewellery items.  <u>NOTE:</u> Preliminary designing and idea development are steps or stages in DTP for creating/making items to satisfy identified needs or solve a problem of society.	Student to:  - give an acceptable definition of the terms.  - write short essay on the importance of DTP, preliminary design and idea development in jewellery.



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1 (CONT'D)</b>  <b>PRELIMINARY DESIGNS AND IDEA DEVELOPMENT</b>	<p>The student will be able to:</p> <p>5.1.3 describe and use the sequence of steps in idea development and preliminary design.</p> <p>5.1.4 Make sketches/models to create jewellery items by applying skills in DTP elements and principles of design.</p>	<p>Design and Technology Process: Preliminary design and idea development in jewellery:</p> <ul style="list-style-type: none"> <li>- perceiving the object or idea from different angles</li> <li>- combining, superimposing, abstracting, twisting, elongating, etc.</li> <li>- final sketching</li> </ul> <p>Application of DTP elements and principles of design in jewellery making.</p> <p>Computer Aided Designing (CAD) using appropriate drawing/design software.</p> <p>Problem/needs eg. Jewellery as clothing accessory for children, youth, adults,</p>	<p>Assist students to:</p> <p>Demonstrate steps in idea development.</p> <p>Guide students through the steps of idea development/preliminary design to arrive at a final sketch.</p> <p>Guide students to brainstorm, identify and discuss problem/needs to be solved or satisfied through jewellery.</p> <p>Discuss and demonstrate the application of DTP elements and principles of design in the development of sketches to satisfy an identified need..</p> <p>Guide students to develop sketches and designs for jewellery using computer software (if available) and other available tools.</p>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- describe with the help of illustration, procedures for idea development and preliminary designing for jewellery making.</li> <li>- create designs for jewellery e.g. pendants, bracelets, bangles.</li> <li>- display the designs including computer generated designs for discussion and assessment criteria.</li> </ul>
	<b>UNIT 2</b>  <b>TRANSLATING PRELIMINARY DESIGNS INTO FINAL PRODUCTS</b>	<p>5.2.1 design and make suitable model of jewellery items from sketches</p> <p>5.2.2 translate models into finished products, to satisfy an identified need using appropriate techniques and materials.</p>	<p>Design and making of models, from sketches, for specific items of jewellery by cutting, folding, perforating, carving, joining, etc.</p> <p>Materials for model making. e.g. clay, wax, plasticine, paper, foil, etc. Characteristics and qualities:</p> <ul style="list-style-type: none"> <li>- pliable and can be formed or shaped and still keep/retain its shape/form etc.</li> </ul> <p>Using variety of materials such as bones, horn, soft stones, leather etc. to produce bead jewellery items based on models: Some needs</p> <ul style="list-style-type: none"> <li>- Rings, Bangles, Necklaces</li> <li>- Pendants, Hair-slides, etc.</li> </ul>	<ul style="list-style-type: none"> <li>- discuss the characteristics and qualities of materials for models e.g. clay, wax, plasticine, paper, foil etc.</li> <li>- collect and discuss natural and artificial objects for making jewellery.</li> <li>- make different sizes, shapes and colours of beads suitable for jewellery using the different materials, applying skills in sawing, cutting, perforating, filing, etc.</li> </ul>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3</b></p> <p><b>EXPLORING THE USE OF SEEDS, CLAY, BONES, GLASS BEADS FOR JEWELLERY</b></p>	<p>The student will be able to:</p> <p>5.3.1 combine beads with accessories in making jewellery e.g. sequin, findings, wire, thread.</p> <p>5.3.2 incorporate beads into different items to satisfy an identified need in jewellery.</p>	<p>Combining beads with accessories: wire, thread, sequin, etc. in making items of jewellery such as: Rings, Bangles, Pendants, Hair-slides, to satisfy an identified need/problem of an individual in the:</p> <ol style="list-style-type: none"> <li>i. home or</li> <li>ii. school or</li> <li>iii. community</li> </ol> <p>Designing and decorating items with beads e.g. shoes, dresses, belts, bags, hats jewellery, boxes, masks, watch straps, chair backs, car-seats, rattle, etc.</p>	<p>, Guide students to:</p> <ul style="list-style-type: none"> <li>- identify and discuss accessories, findings and other items e.g. sequin, types of thread, etc., needed and how they are combined to make jewellery items.</li> <li>- discuss effective use of accessories and findings</li> <li>- identify tools, materials and techniques used in decorating items.</li> <li>- apply skills and techniques for combining beads with accessories into jewellery items.</li> <li>- demonstrate techniques involved in decorating items with beads: gluing, sewing, etc.</li> <li>- select any two ready-made items e.g. belt, bags, shoes etc. and decorate them with beads.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- draw and name some accessories and findings and write a short essay on their uses.</li> <li>- draw and name some tools and write a short essay on their uses.</li> <li>- display finished items and appraise them using criteria of originality, design, craftsmanship etc.</li> <li>- display work and write on how the items were made.</li> </ul>

# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 6

### JEWELLERY FINISHING PROCESSES

**General Objectives:** The student will:

1. understand the need for decoration and finishing.
2. acquire skills in decoration and finishing.
3. respond to jewellery items through appreciation and appraisal

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>THE NEED FOR FINISHING</b>  <b>UNIT 2</b>  <b>PROCESSES AND TECHNIQUES FOR FINISHING</b>	The student will be able to:  6.1.1 explain the need for decoration and finishing.  6.2.1 describe different techniques and processes used in finishing jewellery items.  6.2.2 decorate different items of jewellery by using suitable techniques.	Need for decoration and finishing: to enhance beauty of the item; to make it durable, etc.  Embellishing and finishing techniques: marbling, smoothening, incising, spraying, painting, patination, texturing, chasing, enamelling, glazing, inlaying, polishing, buffing, lacquering etc.  Application of different finishing techniques to enhance the surface of jewellery items. e.g. enamelling, in-laying, engraving, etc.	Assist students to:  - discuss the need for decoration and finishing in jewellery using sample and appropriate teaching and learning methods.  - identify and describe the different techniques used in embellishing and finishing of jewellery items.  - assemble items of jewellery and discuss the techniques used in finishing and enhancing the surface of jewellery items.  - display samples of finished components and discuss processes used.	Student to:  - write short essays on the importance of surface enhancement and finishing in jewellery.  - describe five decorative/enhancement /finishing techniques. - state reasons for choice of techniques.  - appraise and appreciate finished work.



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3 (CONT'D)</b></p> <p><b>APPRECIATION AND CRITICISM</b></p>	<p>The student will be able to:</p> <p>5.2.1 judge an artwork using criteria and theories in aesthetics.</p>	<p>Criticism and judgement in art. Development of critical thinking and judgement</p> <p><b>Critiquing an Artwork</b></p> <ol style="list-style-type: none"> <li>i. Describe what you see. (Identification of work)</li> <li>ii. Analyze what you see – the composition of the work, the use of the principles of design in organizing the elements.</li> <li>iii. Interpret what you see – the mood, the atmosphere, etc.</li> <li>iv. Judge the work – your impression</li> </ol>	<p>Discuss aesthetic qualities of a work of art and the passing of judgement. Students to use their own works to demonstrate the procedure learnt.</p> <p>Guide students to criticize some art works and pass judgement using the criteria and aesthetics theories.</p> <p>Ensure the active participation of every member of your class. Encourage every student to take</p>	<p>Students to:</p> <p>criticize artworks placed before them for assessment.</p> <p>NB: use the Check List in Appendix B</p>

# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 6

### PROFESSIONAL ETHICS AND ENTREPRENEURIAL PRACTICES - 1

**General objectives:** The student will:

1. develop the right professional attitude and harness variety of ideas to launch a career.
2. develop a business plan and review it periodically.
3. be aware of the relevance of portfolio building and exhibition in the life of an artist.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>PORTFOLIO BUILDING</b>	The student will be able to:  1.1.1 explain the types and importance of an artist portfolio.	<p><b>Artist's Portfolio</b>                      The artist's portfolio can be described as</p> <ol style="list-style-type: none"> <li>i. A large flat case used especially for carrying pictures, documents etc.</li> <li>ii. Set of pictures or other pieces of work that an artist, photographer etc. has done (hard or soft copies)</li> </ol> <p><b>Types</b>                      Photographs, slides, transparencies, CDs, VCDs, DVDs, EVDs, files, folders, albums, etc. Constructing portfolio with appropriate materials and using it to store or keep personal artworks for assessment, exhibition etc.</p> <p><b>Importance</b>                      It serves as an evidence of practical knowledge, creative ability, skill, experience and achievement during an interview for future studies, education, training or employment.</p>	<p>Using samples lead students to discuss:</p> <ul style="list-style-type: none"> <li>- an artist's portfolio</li> <li>- the importance of a portfolio and</li> <li>- types of a portfolio .</li> </ul> <p>Ask students to discuss the advantages and disadvantages of keeping a portfolio</p> <p>Guide students to develop a checklist for determining the qualities and requirements for a good portfolio.</p>	Students to:  explain the importance and functions of portfolio to the jewellery artist.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1 (CONT'D)</b>  <b>PORTFOLIO BUILDING</b>	The student will be able to:  1.1.2 construct and build a portfolio with selected jewellery works.	<b>Construction of a Portfolio</b> Designing and making a container to keep art works	Demonstrate the construction of a portfolio to students and ask every student to construct his/her own using any appropriate material, e.g. cardboard, strawboard, chip board, etc.  Discuss how to select, mount and protect art works for storage.	Students to:  construct a portfolio for assessment with regards to quality of material, durability, capacity and aesthetic appeal
<b>UNIT 2</b>  <b>DEVELOPING A BUSINESS PLAN</b>	1.2.1 prepare a business plan for an art enterprise	<b>Business Plan</b> A business plan is a document that indicates what one intends doing, how and when.  <b>Purpose of a Business Plan</b> <ol style="list-style-type: none"> <li>i. It controls the direction of the enterprise.</li> <li>ii. It helps in monitoring and evaluating the progress of the business</li> <li>iii. It serves as collateral or security to seek a loan or financial assistance, etc.</li> </ol> <b>Things to Consider in Preparing a Business Plan</b> <ol style="list-style-type: none"> <li>i. Executive summary</li> <li>ii. Name and address of business or enterprise</li> <li>iii. Identification of a need to satisfy.</li> <li>iv. Establish what you want to achieve or do.</li> <li>v. Find out or research from past solution to similar problems.</li> <li>vi. Analyze the industry or market where you can operate e.g. potential customers, competitors, etc.</li> </ol>	Guide the student to brainstorm and <ol style="list-style-type: none"> <li>i. discuss the meaning and purpose of a business plan.</li> <li>ii. discuss with reference to an art enterprise, the key points in preparing a business plan</li> </ol> NB: Assist students to present their business plan with or without digital content in class for discussion. Consult a business person for assistance on the topic.	describe how to develop a business plan using concrete examples.  develop a business plan for his or her intended art enterprise for consideration by a local <ol style="list-style-type: none"> <li>i. bank</li> <li>ii. financier</li> <li>iii. non-governmental organization</li> </ol>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2 (CONT'D)</b>  <b>DEVELOPING A BUSINESS PLAN</b>	The student will be able to:	<ul style="list-style-type: none"> <li>vii. Pick the best solution</li> <li>viii. Describe the enterprise or business (product, services, background of the entrepreneur)</li> <li>ix. Describe production activity e.g. designing and making process, machines, sources of raw materials location of enterprise etc..</li> <li>x. Marketing activities e.g. customers, pricing, distribution, promotion, advertising, etc.</li> <li>xi. Organization e.g. background of managers and their duties, etc.</li> <li>xii. Financial plan e.g. capital requirement, potential profits, cash flow and sources of funds.</li> </ul>		Students to:
<b>UNIT 3</b>  <b>BRANDING AND PACKAGING</b>	1.3.1 explain branding and brand name	<p><b>Branding</b> Branding is a practice which involves an enterprise or a company giving an identity or name to a group of its products. The purpose of branding is to make the product well-known</p> <p><b>Brand Name</b> This is the name given to a product by the company that makes it. Some products apart from the brand name bear the names of particular shops.</p> <p><b>NB:</b> It is an offence punished by law to use someone else's registered brand name for your product</p>	<p>Lead students to discuss branding and brand names.</p> <p>Guide students to mention some familiar and common brand names they know of, e.g. Milo, Eveready Battery, Toyota, Benz, Nokia, Mon Ami poster colour, Crayola crayons etc.</p> <p>Put students in convenient groups and ask them to conduct a market survey, collate information on brand names and report to class for discussion. The groups could be based on the following:</p> <ul style="list-style-type: none"> <li>i. Food Beverages</li> <li>ii. Alcoholic Beverages,</li> <li>iii. Dairy Products</li> <li>iv. Electronic Gadgets</li> <li>v. Vehicles</li> <li>vi. Perfumes</li> <li>vii. Deodorants</li> <li>viii. Herbal/Orthodox Medicine</li> <li>ix. Art Tools, Materials and Equipment etc.</li> </ul>	present their lists designed graphically for evaluation and grading.



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 3</b>  <b>BRANDING AND PACKAGING</b>	<p>The student will be able to:</p> <p>1.3.2 explain the Importance of packaging an artefact</p> <p>1.3.3 brand and package A jewellery set</p>	<p><b>Package and Packaging</b>  A package is a container that holds a product and makes it possible for easy handling</p> <p>Packaging is a way of making a product attractive and interesting to clients and consumers.</p> <p>Packaging can be categorized into three thus</p> <ol style="list-style-type: none"> <li>i. Primary packaging: when goods are packaged, wrapped and/or sealed and sold individually, e.g. necklace, earrings, toffee, a bar of chocolate, a box of matches, a box of chalk and a pair of socks.</li> <li>ii. Secondary packaging: when individually packaged goods are put together (sometimes in dozens) into a large container as a unit for the market, e.g. a carton of milk, a crate of minerals (fanta) and a sachet of wrapped toffees</li> <li>iii. Tertiary packaging: the act of putting secondary packages into a single unit, e.g. a carton/box of sachet toffees.</li> </ol> <p><b>Functions and Importance of Packages</b></p> <ol style="list-style-type: none"> <li>i. Identification of the product.</li> <li>ii. Protects the content from the hazards of the elements of weather and climate.</li> <li>iii. Facilitates easy handling and movement.</li> <li>iv. Adds value (attractive).</li> <li>v. Gives information about the product.</li> </ol> <p>Branding and packaging an art product</p>	<p>Lead students to discuss package and packaging.</p> <p>Guide them to categorize packages into primary, secondary and tertiary using the appropriate TLMs.</p> <p>Ask students to collect packages, study the materials used and assess their importance</p> <p>Guide students to select an art product, give it a brand name, design a package and package it.</p>	<p>Students to:</p> <p>write an essay on the importance of packaging an artefact</p> <p>submit work for assessment and grading.</p> <p>present reports for class discussion and assessment</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 4</b></p> <p><b>ARTIST'S STATEMENT, BROCHURE AND BUSINESS CARD</b></p>	<p>The student will be able to:</p> <p>1.4.1 explain and prepare own 'Artist's Statement'</p>	<p><b>Artist' Statement:</b>  Many artists assume that everybody who sees their works will automatically understand their philosophy and concept. But this is not true. The artist must prepare and distribute his/her statement to guide his/her admirers have a clearer and better understanding of his/her works</p> <p>An Artist's Statement is an official statement by the artist to inform the public about his/her philosophy, style, technique, sources of inspiration and medium of artistic expression.</p> <p><b>Example of an Artist's Statement:</b>  'I create photographs of assemblages constructed from pieces of ordinary paper. Twisting, tearing and crumpling paper into various shapes. I produce visual imagery that forms intriguing illusions and relationships between my objects when light, shadow and forms merge. At first glance, a photograph might appear as an exotic flower, but taking a closer look viewers will see the familiar scalloping and rippling of a paper plate'  <i>Leonard Morris</i></p> <p><b>Importance of an Artist's Statement:</b>  An artist's statement</p> <ul style="list-style-type: none"> <li>i. helps art consultants, dealers; retailers etc. promote and sell works of the artist.</li> <li>ii. serves as background information in helping writers, critics and curators prepare articles, reviews and exhibition catalogues.</li> <li>iii. can help the artist in sourcing for grants etc.</li> </ul>	<p>Lead students to discuss an artist's statement an its importance in the life of the practicing artist.</p> <p>Let every student</p> <ul style="list-style-type: none"> <li>i. assemble the works he/she has produced over the years, study them and come out with a concept or philosophy to create an 'Artist's Statement'</li> <li>ii. compare his/her statement with a friend's and collaborate to come out with a refined statement for class discussion and adoption.</li> </ul>	<p>Students to:</p> <p>Students to access information on how an artist's statement is prepared from the internet for class discussion.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3</b></p> <p><b>ARTIST'S STATEMENT BROCHURE AND A BUSINESS CARD</b></p>	<p>The student will be able to:</p> <p>1.4.2 design and make an artist's brochure .</p> <p>1.4.3 design and make a business card.</p>	<p><b>Artist's Brochure</b> An artist's brochure is a printed document, booklet or a thin book that gives information about an artist and his/her works.</p> <p>An effective brochure may have among other things the following:</p> <ol style="list-style-type: none"> <li>i. The name of the artist/practitioner</li> <li>ii. The artist's statement (philosophy, motivation, ideas, etc.</li> <li>iii. Contact: <ul style="list-style-type: none"> <li>• telephone Numbers</li> <li>• email address</li> <li>• postal address</li> <li>• website, etc.</li> </ul> </li> <li>iv. Location of studio</li> <li>v. Photos of some works produced: <ul style="list-style-type: none"> <li>• dimension and size of work</li> <li>• title of work</li> <li>• medium used</li> <li>• price</li> </ul> </li> <li>vi. Record of previous exhibitions held (solo and/or group exhibitions)</li> </ol> <p><b>Business Card:</b> A small card that shows a businessman's name, position, company, telephone number and address etc.</p> <p>As a professional artist doing business with a lot of people there is the need to have a business card which you can give out anytime you attend conferences, seminars, workshops etc.</p> <p>It is suggested that the artist should have a single section or accordion fold with an image of one of his/her best works as well as a summary of his statement.</p>	<p>Students in groups of four or five brainstorm and suggest ways by which an artist can create public awareness of what he/she does and can do and present report for class discussion.</p> <p>Lead students to discuss the meaning, purpose and characteristics of an artist's brochure.</p> <p><b>Project</b> Every student is to prepare his/her own brochure using appropriate skills and technology for class discussion, appreciation and judgement.</p> <p>Size of Work: A-5 No. of Pages: 16 (four spreads of A-4) NB: '<b>Greeking</b>' can be used for less important information</p> <p>Take students through the following activities:</p> <ol style="list-style-type: none"> <li>i. provide students with different samples of business cards,</li> <li>ii. ask them to examine the cards.</li> <li>iii. lead them to discuss the content and characteristics of the cards.</li> <li>iv. Guide them to develop their own business cards taking into consideration their profession as artists.</li> </ol>	<p>Students to:</p> <p>design and make an artist's brochure for assessment.</p> <p>NB: Let students use the Check List in Appendix B to assess their works.</p> <p>design and make a personal business card for assessment.</p> <p>write an essay on the importance of business card in the socio-economic life of the artist.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 5</b>  <b>EXHIBITION</b>	<p>The student will be able to:</p> <p>1.5.1 explain and describe the types and purposes of exhibition</p>	<p><b>Exhibition:</b> It is the public display of goods and services to attract viewers and buyers.</p> <p><b>Importance:</b></p> <ol style="list-style-type: none"> <li>i. To promote sales</li> <li>ii. To advertise a new skill, technique, style or product.</li> <li>iii. To attract customers</li> <li>iv. For public interaction and evaluation.</li> <li>v. For self advertisement and public awareness.</li> <li>vi. To create business links.</li> <li>vii. To break new grounds etc</li> </ol> <p><b>Types of Exhibition:</b></p> <ol style="list-style-type: none"> <li>i. General Exhibition: this type of exhibition attracts different kinds of goods and services e.g. auto mobile, electronics, beverages, fine arts, books, woodwork, etc.</li> <li>ii. Specialized Exhibition: this type of exhibition attracts specific products, e.g. an Art Exhibition.</li> <li>iii. Solo or Individual Exhibition: this is an exhibition undertaken by only one person.</li> <li>iv. Group Exhibition: an exhibition by a group of persons.</li> </ol> <p><b>Forms of Exhibition</b> Exhibitions whether general, specific, solo or group can take any of the following form based on the intended objectives and purpose.</p> <ol style="list-style-type: none"> <li>i. Bazaar</li> <li>ii. Educational Fair</li> <li>iii. Exposition</li> <li>iv. Jury/Assessment (Closed)</li> </ol>	<p>Guide students to brainstorm and come out with an operational meaning of Exhibition.</p> <p>Lead students to discuss the importance of exhibitions in the life of an artist.</p> <p>Ask students to research and come out with the types of exhibitions and the various forms that exhibitions can take through interviews, library research, internet etc.</p>	<p>Students to:</p> <p>produce artworks for exhibition</p> <p>visit exhibition centres and write reports</p> <p><b>Assignment</b> Students to visit an exhibition, gallery etc. for fact finding on the importance of exhibition on the socio-economic life of the artist.</p>



# SENIOR HIGH SCHOOL - YEAR 2

## SECTION 2

### HISTORY OF JEWELLERY IN GHANA

**General Objectives:** The student will:

1. recognise that, jewellery has a historical development in different places and cultures of Ghana.
2. understand that, jewellery has a role to play in the development of Ghana.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 1</b></p> <p><b>HISTORY AND DEVELOPMENT OF JEWELLERY IN GHANA</b></p>	<p>The student will be able to:</p> <p>2.1.1 explain the history and development of jewellery in Ghana.</p>	<p>Historical development of jewellery in Ghana.</p> <ul style="list-style-type: none"> <li>- Evidence of the presence of beads and metal jewellery in West Africa before the arrival of Europeans.</li> <li>- Foreign influence through trade.</li> </ul>	<p>Guide students to:</p> <ul style="list-style-type: none"> <li>- discuss the history of jewellery in Ghana with reference to origin, types, styles, etc.</li> <li>- organise field-trips to historical locations.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- access the internet also and conduct interviews, read reference books and write notes and reports on the unit .</li> <li>- report on the findings from trips and discuss findings.</li> </ul>
<p><b>UNIT 2</b></p> <p><b>JEWELLERY PRODUCING AND MARKETING CENTRES</b></p>	<p>2.2.1 identify jewellery producing and marketing centres in Ghana.</p>	<p><b>Bead producing centres:</b></p> <ul style="list-style-type: none"> <li>- Abompe, Manya Krobo (Odumase), Somanya, Ningo, Prampram, Asaman (Ashanti), etc.</li> </ul> <p><b>Metal jewellery centres:</b></p> <ul style="list-style-type: none"> <li>- Obuasi, Kumasi Krofrom (Ashanti), Teshie/Nungua (Greater Accra), Tarkwa, Aboso, Wasa, Simpa (Western), etc.</li> </ul> <p><b>Marketing centres:</b></p> <p>Koforidua, Ho, Abompe, Agbogbloshie, Makola Shopping Mall, Centres for National Culture, etc.</p>	<ul style="list-style-type: none"> <li>- use map of Ghana to locate and discuss jewellery producing and marketing centres.</li> </ul> <p><b>NOTE:</b> Students should make use of ICT/internet facilities for more information on the unit.</p>	<ul style="list-style-type: none"> <li>- prepare a table and indicate types of beads and metal jewellery to be found at specific locations.</li> </ul>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2 (CONT'D)</b>  <b>JEWELLERY PRODUCING AND MARKETING CENTRES</b>	The student will be able to:  2.2.2 determine the types of jewellery produced in Ghana according to types and features..	Determine the types and features of Beads in Ghana: stone (cut and shaped), glass, bone, bamboo, shell, seed, metal etc. jewellery.	Assist students to:  - brainstorm and discuss the features of jewellery produced in Ghana.  - examine, compare, contrast to differentiate and determine types and features of jewellery in Ghana.  - visit markets, boutiques, galleries, to observe features in indigenous and modern types of jewellery in Ghana and report in class for discussion.	Student to:  - analyse and discuss features of jewellery produced in Ghana.  - write report on visit and discuss report in class.
<b>UNIT 3</b>  <b>CONTRIBUTION OF JEWELLERY TOWARDS DEVELOPMENT OF GHANA</b>	2.3.1 identify the contributions of jewellery towards the cultural, social and economic development of Ghana.	Socio-cultural: - preservation and promotion of culture - both sexes, young and old wear jewellery to adorn their bodies, etc. - jewellery for the youth - items of jewellery convey information - items of jewellery identifies rank, etc.  Economic: - production and marketing of jewellery, at different levels. - creation of employment for the youth. - generation of tax revenue to government - supports tourism by making souvenirs available to tourists.	- discuss the contributions the jewellery industry makes towards the cultural, social and economic development of Ghana.  interview people in the community about the reasons, meaning and the cultural significance of jewellery items they own or use. Use digital technology for recording and documentation.  <b>NOTE:</b> Students to use communicative collaborative and ICT skill i.e: computer internet for researching, report writing and presenting. Use digital technology for recording purpose.	- write group report on the contribution of jewellery towards the socio-cultural development of Ghana and make a class presentation to be followed by discussion.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION		
<b>UNIT 4 GLASS, CLAY AND STONE BEAD PRODUCTION</b>	<p>The student will be able to:</p> <p>2.4.1 identify and utilise tools and materials for making glass beads.</p> <p>2.4.2 design and make clay moulds for glass beads.</p>	<p>Glass beads-making materials and tools</p> <table border="0"> <tr> <td style="vertical-align: top;"> <p><b>Tools</b> metal mortar pestle grinding stone bodkin bead holder bricks file, etc.</p> </td> <td style="vertical-align: top;"> <p><b>Materials</b> pieces of glass clay cassava leaf stalk 'suede' colouring fuel for kiln, etc.</p> </td> </tr> </table> <p>Designing and making of glass beads:</p> <ul style="list-style-type: none"> <li>- making design (pattern) for beads</li> <li>- preparation of clay body</li> <li>- making of clay slabs</li> <li>- making of holes of desired shapes in slabs (this is the mould)</li> <li>- mould drying.</li> </ul>	<p><b>Tools</b> metal mortar pestle grinding stone bodkin bead holder bricks file, etc.</p>	<p><b>Materials</b> pieces of glass clay cassava leaf stalk 'suede' colouring fuel for kiln, etc.</p>	<p>Guide students to:</p> <ul style="list-style-type: none"> <li>- discuss uses of tools and materials.</li> <li>- collect more information about tools and materials and draw the tools.</li> <li>- visit glass bead centres e.g. Odumase Krobo, for information on bead making.</li> <li>- discuss the importance and techniques of designing and making mould.</li> <li>- make design (patterns) for beads.</li> <li>- prepare clay for making moulds for glass beads.</li> <li>- make circular clay slabs and introduce holes of desired shapes in the slabs.</li> <li>- dry moulds and coat with kaolin solution.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- write report on visit and discuss findings in class. Incorporate digital recording and documentation in your report.</li> <li>- assemble prepared clay mould for discussion and assessment.</li> </ul>
<p><b>Tools</b> metal mortar pestle grinding stone bodkin bead holder bricks file, etc.</p>	<p><b>Materials</b> pieces of glass clay cassava leaf stalk 'suede' colouring fuel for kiln, etc.</p>					



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 4 (CONT'D)</b></p> <p><b>GLASS CLAY AND STONE BEADS</b></p> <p><b>Filling moulds with glass powder</b></p> <p><b>Packing and firing</b></p>	<p>Student will be able to:</p> <p>2.4.3 design and build a brick kiln for glass bead making.</p> <p>2.4.4 prepare and fill moulds with glass powder.</p> <p>2.4.5 pack and fire beads in a kiln, using appropriate techniques.</p> <p>2.4.6 smoothen beads by sanding/ grinding and polishing.</p>	<p>Building a brick kiln What to consider:</p> <ul style="list-style-type: none"> <li>- design of kiln</li> <li>- working drawing</li> <li>- site for construction</li> <li>- tools and materials</li> <li>- interpreting the design for construction</li> <li>- testing for functionality.</li> </ul> <p>Preparing and filling moulds. Preparing glass powder:</p> <ul style="list-style-type: none"> <li>- pounding of broken bottles/glass</li> <li>- sieving/sifting to obtain fine powder</li> <li>- putting pieces of cassava leaf stalk in each hole of the clay mould</li> <li>- filling holes with glass powder</li> <li>- apply 'suede' colouring to create pattern.</li> </ul> <p>Proper glass bead packing and firing procedure.</p> <p>Smoothening beads by:</p> <ul style="list-style-type: none"> <li>- filing rough edges</li> <li>- polishing, etc.</li> </ul>	<p>Guide students to:</p> <p>apply the DTP and make preliminary designs of kilns, discuss and select the appropriate one.</p> <p><b>Note:</b> Arrange and invite a builder from the community to assist in building and testing the kiln.</p> <p>build and test the kiln.</p> <p>Demonstrate the procedure for filling the moulds with glass powder and how to introduce colour and pattern with 'suede' colouring.</p> <p>fill their moulds according to the designs (patterns) they have made.</p> <p><b>Note:</b> Students should wear protective clothing and apply safety measures when preparing and using glass e.g. mask, gloves, goggles etc.</p> <p><b><u>Inhaling glass powder is dangerous.</u></b></p> <ul style="list-style-type: none"> <li>- pre-heat the kiln, pack the filled moulds into kiln, un-pack moulds, when beads are fired (fused)</li> <li>- smoothen rough edges by filing and polishing of beads. demonstrate bead stringing.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- design and build a kiln assisted by builder and test fire the kiln.</li> <li>- present a report on the procedure for building and testing a kiln for results.</li> <li>- plan and make glass beads according to: <ul style="list-style-type: none"> <li>- patterns/designs</li> <li>- symbolic expressions</li> </ul> </li> <li>- assemble, string glass beads, observe and comment on overall effects.</li> </ul>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 4 (CONT'D)</b></p> <p><b>GLASS CLAY AND STONE BEADS</b></p> <p><b>Clay beads</b></p> <p><b>Stone beads</b></p>	<p>Student will be able to:</p> <p>2.4.7 prepare clay for making beads.</p> <p>2.4.8 make clay beads to solve or satisfy an identified problem/need.</p> <p>2.4.9 design and make stone beads, stone rings and stone bracelets to satisfy an identified need/problem.</p>	<p>Preparation and storage of clay for beads</p> <ul style="list-style-type: none"> <li>- soaking, pounding, sieving</li> <li>- wedging, kneading, groging</li> <li>- composing a clay body (if necessary) e.g. stoneware.</li> </ul> <p>Design and make clay beads and pendants to satisfy an identified need.</p> <p>Firing clay beads at required temperature for durability.</p> <p>Designing and making stone beads.</p> <p>Types of stones</p> <ul style="list-style-type: none"> <li>- bauxite</li> <li>- quartzite</li> <li>- marble</li> <li>- gypsum</li> <li>- shale</li> <li>- limestone</li> <li>- jasper, etc.</li> </ul> <p>Stone beads making techniques:</p> <ul style="list-style-type: none"> <li>- breaking</li> <li>- cutting</li> <li>- shaping</li> <li>- drilling</li> <li>- grinding</li> <li>- polishing, etc.</li> </ul>	<p>:</p> <p>Guide students to:</p> <ul style="list-style-type: none"> <li>- discuss the processes involved in the preparation of clay.</li> <li>- prepare clay and store for use.</li> <li>- discuss the suitability of stones for making beads and other jewellery items to satisfy identified needs of society.</li> <li>- use the DT to satisfy the need or solve the problem to make preliminary designs by applying the elements and principles of design.</li> <li>- translate 2-D designs into clay beads.</li> <li>- organise and fire their works.</li> </ul> <p><b>Note:</b> Use the map of Ghana to locate sources of stone deposits.</p> <ul style="list-style-type: none"> <li>- identify and discuss needs/problems in Jewellery.</li> <li>- make stone beads and pendants, bangles, rings using techniques like breaking, cutting, shaping, grinding, smoothening, drilling, polishing, etc.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- prepare clay and store in polythene bags for use later.</li> <li>- make and display samples of clay bead jewellery, using 5 different decorative techniques or a combination of one or more techniques.</li> <li>- analyse and assess results</li> <li>- identify stones in the environment and experiment with the stones to make jewellery to satisfy identified needs.</li> <li>- write short essay on the result of experimenting with stone to make jewellery items.</li> <li>- assemble jewellery items made for discussion and assessment.</li> </ul>

# SENIOR HIGH SCHOOL - YEAR 2

## SECTION 3

### THE JEWELLERY WORKSHOP

**General Objectives:** The student will:

1. select the right tools and equipment for work on hand with care.
2. maintain and work in a conducive workshop environment.
3. design and make appropriate packaging to hold, store and/or display jewellery.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION				
<b>UNIT 1</b>  <b>TOOLS AND EQUIPMENT</b>	The student will be able to:  3.1.1 identify and use various tools and equipment in jewellery workshop.	<table border="1" style="width: 100%;"> <thead> <tr> <th style="text-align: center;">Basic Tools</th> <th style="text-align: center;">Basic Equipment</th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;">                             Jewellers saw-frame                              Jewellers saw-blade                              Assorted needle files                              Large hand files                              File brush                              Ring clamp                              Etc.                         </td> <td style="vertical-align: top;">                             Rolling Mill                              Polishing Motor                              Flexi-shaft                              Engraving - Machine                              Electroplating - Machine                              Enamelling Kiln                              Etc.                         </td> </tr> </tbody> </table>	Basic Tools	Basic Equipment	Jewellers saw-frame Jewellers saw-blade Assorted needle files Large hand files File brush Ring clamp Etc.	Rolling Mill Polishing Motor Flexi-shaft Engraving - Machine Electroplating - Machine Enamelling Kiln Etc.	Guide students to: <ul style="list-style-type: none"> <li>- identify, handle, test and practise with workshop tools.</li> <li>- discuss how to care for and maintain tools by cleaning, oiling, storing, etc.</li> </ul>	Student to: <ul style="list-style-type: none"> <li>- classify, draw and label various tools.</li> <li>- demonstrate proper maintenance and storage of tools.</li> </ul>
Basic Tools	Basic Equipment							
Jewellers saw-frame Jewellers saw-blade Assorted needle files Large hand files File brush Ring clamp Etc.	Rolling Mill Polishing Motor Flexi-shaft Engraving - Machine Electroplating - Machine Enamelling Kiln Etc.							
<b>UNIT 2</b>  <b>ORGANISATION OF THE WORKSHOP</b>	3.2.1 design the plan and layout of a jewellery workshop.  3.2.2 apply safety precautions at the workshop.	Planning the layout: <ul style="list-style-type: none"> <li>- Lighting requirement</li> <li>- Water</li> <li>- Ventilation</li> <li>- Floor surface</li> <li>- Storage space</li> <li>- Work bench, tools and equipment Placement.</li> </ul> Proper handling of tools, wearing of protective gadgets, correct posture, workshop security, etc.	<ul style="list-style-type: none"> <li>- organise visits to jewellery workshops.</li> <li>- discuss the layout of a workshop and assign reasons for the need to segregate the different activity areas e.g. polishing area, electroplating room, etc.</li> <li>- prepare, in group(s), a good workshop layout workshop.</li> <li>- identify safety measures and discuss their importance. Access relevant "occupational health" websites for further information.</li> </ul>	<ul style="list-style-type: none"> <li>- justify the layout produced.</li> <li>- write an essay on safety measures in the jewellery workshop.</li> </ul>				



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 4</b>  <b>PACKAGING AND HANDLING</b>	<p>The student will be able to:</p> <p>3.4.1 identify various materials used in packaging.</p> <p>3.4.2 categorise packaging according to functions.</p> <p>3.4.3 design and construct sachets/pouches, wrappers and cards for packaging and presenting jewellery.</p> <p>3.4.4 design and make containers for jewellery items to satisfy an identify problem</p>	<p>Categories include:</p> <ul style="list-style-type: none"> <li>- Primary packaging</li> <li>- Secondary packaging</li> <li>- Tertiary packaging</li> </ul> <p>Functions: Packaging provides</p> <ul style="list-style-type: none"> <li>- Identification</li> <li>- Protection</li> <li>- Information</li> <li>- Convenience</li> <li>- Attraction, etc.</li> </ul> <p>Construction of simple sachet/pouches and wrappers using appropriate materials.</p> <p>Designing and production of containers for packaging jewellery items, using</p> <ul style="list-style-type: none"> <li>- card/wood</li> <li>- gourds</li> <li>- cellophane bags</li> <li>- leather/fabrics</li> <li>- bamboo, etc</li> </ul>	<p>Guide students to:</p> <ul style="list-style-type: none"> <li>- identify common packages, e.g. carton, crates, sacks, wrappers, etc.</li> <li>- collect different packages and discuss them.</li> <li>- discuss peculiarities of the various packages.</li> <li>- identify, compare and differentiate between the types of packages and their functions.</li> <li>- discuss and categorise them according to functions.</li> </ul> <p>- design and construct simple pouches/sachets and wrappers using foils, films, papers and polythene for packaging.</p>	<p>The student to:</p> <p>state and explain the importance of packaging and handling</p> <ul style="list-style-type: none"> <li>- describe packages in each category.</li> <li>- categorise packages according to material, types and function.</li> <li>- produce pouches and wrappers.</li> <li>- display finished items and use pre-determined procedure and criteria to appreciate and appraise them.</li> <li>- design and make packages for: <ul style="list-style-type: none"> <li>- one-piece item</li> <li>- three-piece items</li> <li>- five-piece items</li> </ul> </li> </ul>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 4 (CONT'D)</b>  <b>PACKAGING AND HANDLING</b>	The student will be able to:  3.4.5 design and construct packages to satisfy a need in jewellery.	Packaging for jewellery : - Packaging for presentation, for the market export, etc.	<ul style="list-style-type: none"> <li>- design and make suitable containers for displaying specific jewellery items. e.g. necklace, earring and bracelet, etc.</li> <li>- design and produce packages of any shape of their choice using DTP, appropriate tools, materials and appraise works according to criteria.</li> </ul>	<ul style="list-style-type: none"> <li>- display finished items, appreciate and appraise them in terms of design, purpose and qualities of packaging</li> </ul>

# SENIOR HIGH SCHOOL - YEAR 2

## SECTION 4

### BASIC METAL WORK FOR JEWELLERY

**General Objectives:** The student will:

1. develop the capacity to handle and utilise tools to transform designs and materials into finished metal jewellery products.
2. appreciate the processes and techniques used for making finished jewellery items.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION				
<b>UNIT 1</b>  <b>METAL PREPARATION</b>	The student will be able to:  4.1.1 identify and list materials used for metal jewellery.          4.1.2 prepare metal for jewellery making.	Materials: - metals e.g. copper, aluminium, gold platinum, silver, borax, acids, etc.  Forms of materials - wire, shot, tube, hollow ball, sheet, etc.      Processing of metal by: - annealing - pickling - rinsing - milling (to specification)	Guide students to: - brainstorm to come up with meaning assemble metals and classify them into precious and non-precious metals. e.g. <table border="1" style="margin: 10px auto; width: 80%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Precious</th> <th style="text-align: center;">Non-precious</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Gold Platinum Palladium Silver Etc.</td> <td style="padding: 5px;">Copper Aluminium Nickel Brass Bronze Etc.</td> </tr> </tbody> </table> - prepare metal by: annealing, pickling, rinsing, drying and milling.  NOTE * Brass: an alloy of copper and zinc. Bronze: traditionally, an alloy of copper and tin. Modern bronzes however, contain copper plus metals other than tin. E.g. Aluminium bronze.	Precious	Non-precious	Gold Platinum Palladium Silver Etc.	Copper Aluminium Nickel Brass Bronze Etc.	Students to - interview jewellers to list the materials/metals they utilise and state their uses.          - explain the import of these processes
Precious	Non-precious							
Gold Platinum Palladium Silver Etc.	Copper Aluminium Nickel Brass Bronze Etc.							

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2</b>  <b>METAL JEWELLERY FABRICATION PROCESS</b>	<p>The student will be able to:</p> <p>4.2.1 handle and use tools for metal jewellery to perform simple test and tasks.</p> <p>4.2.5 design and make rings earrings, necklaces and pendants to satisfy an identified need using the Design and Technology Process (DTP) and appropriate techniques.</p>	<p>Handling, testing and using tools for metal jewellery.</p> <p>Types of tools:</p> <ul style="list-style-type: none"> <li>- <u>cutting tools</u> Saws, snips, scraper, etc.</li> <li>- <u>piercing tools</u> bradawl, drills bow, drills, jeweller's saw frames, etc.</li> <li>- <u>filing tools</u> assorted files, needle files, emery paper sanding stones, abrasives, etc.</li> <li>- <u>heating tools</u> blow torch, soldering iron, etc.</li> </ul> <p>Preliminary designs and sketches, for rings, necklaces, pendants and earrings</p> <p>Making metal jewellery items: e.g. earrings, necklaces, cuff-links, finger rings, etc.</p> <p><u>Possible metal jewellery fabrication processes and techniques</u> cutting, etching, drilling, engraving filing, chasing, hammering, repoussage, soldering, enamelling, etc.</p>	<p>Guide students to:</p> <ul style="list-style-type: none"> <li>- assemble tools and classify them according to function: e.g. cutting, piercing, filing, etc.</li> <li>- handle and test tools through simple Exercises and performance of tasks.</li> <li>- demonstrate how to care for and maintain tools by cleaning, oiling and storing in tools boxes, lockers, etc.</li> <li>- select the best design options for execution.</li> <li>- discuss and demonstrate metal fabrication techniques and processes for students to observe and practise.</li> <li>- design, explore and make metal jewellery items through experimentation using various materials and techniques.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- classify tools according to function.</li> <li>- draw and label tools.</li> <li>- handle tests and asses the function of tools.</li> </ul> <p>Design and make a metal jewellery to satisfy an identified need for a regional exhibition.</p>
<b>UNIT 3</b> <b>ALLOY CALCULATION</b>	<p>4.3.1 calculate the weight of component metals required in alloys and prepare gold and silver alloys.</p>	<ul style="list-style-type: none"> <li>-Reasons for alloying.</li> <li>-Meaning of carat/karat in gold jewellery</li> <li>-Calculation of fine gold and ingredient material(s) content in gold alloys.</li> <li>-Calculation of fine silver and ingredient material(s) content of silver alloy</li> </ul>	<ul style="list-style-type: none"> <li>- discuss the meaning of karat (USA), carat (UK)</li> <li>- discuss the reasons for alloying.</li> <li>- discuss the relationship between the carat system e.g. 18K and the thousand -parts system e.g. 750/000</li> </ul>	<ul style="list-style-type: none"> <li>- calculate the weight of ingredient material(s) e.g. copper and/or silver required for alloying a given quantity of fine gold into say, 14K gold.</li> </ul>



# SENIOR HIGH SCHOOL - YEAR 2

## SECTION 5

### METAL JEWELLERY DESIGN AND PRODUCTION

**General Objectives:** The student will:

1. understand and apply the various casting techniques
2. know the attributes of gemstones and incorporate gemstones into jewellery

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1 METAL CASTING PROCESSES</b>  Meaning and types of casting	The student will be able to:  5.1.1 explain the term casting  5.1.2 identify the various casting techniques.  5.1.3 explain the importance of the techniques in jewellery.          5.1.4 explore the various casting methods.	<b>CASTING:</b> the pouring of liquid material such as molten metal into a mould by gravity or under the influence of a force such as centrifugal force and allowing the liquid to solidify to assume the form and shape within the mould. Importance of casting: 1. for reproduction and mass production in jewellery manufacturing 2. for constructing shapes that might be difficult to construct by other methods.  Casting Methods: Cuttle-fish bone (kakadiamaa wu –Ga,) (Kwaakwa danwwoma-Fante) casting. Sand casting Lost-wax casting(cire perdue-French) Employ the necessary procedures in producing jewellery items using the lost-wax method. Designing and making wax patterns <u>Materials and equipment</u> Wax, clay, charcoal, palm nut fibre, scrap metal, melting furnace, crucibles etc.	Guide students to:  - discuss the generic term “casting” to explore the diverse application of the technique.          - identify and discuss types of casting used in making jewellery .          - assemble metal jewellery items, analyse and assess work in terms of design and function.          - make wax models by carving, using wax wires, etc.	Student to:  - produce jewellery items using any of the casting techniques.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>Making wax patterns</b>	<p>The student will be able to:</p> <p>5.1.5 design and make wax patterns for jewellery items: pendant, ring, necklace, etc.</p> <p>5.1.6 mould, de-wax and cast metal jewellery item.</p> <p>5.1.7 finish cast metal jewellery item appropriately.</p>	<p><u>Processes in moulding, de-waxing and casting</u></p> <ul style="list-style-type: none"> <li>- Making wax patterns</li> <li>- Moulding the patterns</li> <li>- De-waxing the mould</li> <li>- Metal melting and casting.</li> </ul> <p>Cleaning of cast item, cutting of sprues, scratch brushing. Correction of casting defects. Filing, Sandpapering,</p> <p>Polishing/burnishing.</p>	<p>Guide students to:</p> <ul style="list-style-type: none"> <li>- make moulds, de-wax and cast in appropriate metal.</li> <li>- carry out post casting/finishing operations.</li> </ul>	<p>Student to:</p> <ul style="list-style-type: none"> <li>- inspect wax patterns to assess whether they conform to design parameters.</li> <li>- inspect and assess how faithfully the wax patterns were reproduced through casting.</li> <li>- display items and assess them in terms of quality, originality and technical finish</li> </ul>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION						
<b>UNIT 2</b>  <b>GEMSTONES AND USAGE</b>	The student will be able to:  5.2.1 know the difference between organic and inorganic gemstones.	Types of gemstone organic – amber, coral, jet etc. Inorganic – diamond, amethyst, ruby, opal etc.  <b>Note</b> Many man-made or synthetic gemstones share the same chemical and physical properties with their natural counterparts.  Colour, cut, hardness, and lustre are important qualities of gemstones.  <table border="1" data-bbox="779 761 1228 1122"> <thead> <tr> <th data-bbox="779 761 1003 792">Natural</th> <th data-bbox="1003 761 1228 792">Man made</th> </tr> </thead> <tbody> <tr> <td data-bbox="779 792 1003 1008"> <b>Inorganic</b>  <b>diamond</b>  <b>ruby</b>  <b>aquamarine</b>  <b>jade</b>  <b>emerald</b>  <b>agate</b> </td> <td data-bbox="1003 792 1228 1008"> <b>ruby</b>  <b>sapphire</b>  <b>topaz</b>  <b>garnet</b>  <b>emerald</b>  <b>amethyst</b>  <b>etc.</b> </td> </tr> <tr> <td data-bbox="779 1008 1003 1122"> <u><b>Organic</b></u>  <b>amber</b>  <b>pearl</b>  <b>jet etc.</b> </td> <td data-bbox="1003 1008 1228 1122"></td> </tr> </tbody> </table>	Natural	Man made	<b>Inorganic</b> <b>diamond</b> <b>ruby</b> <b>aquamarine</b> <b>jade</b> <b>emerald</b> <b>agate</b>	<b>ruby</b> <b>sapphire</b> <b>topaz</b> <b>garnet</b> <b>emerald</b> <b>amethyst</b> <b>etc.</b>	<u><b>Organic</b></u> <b>amber</b> <b>pearl</b> <b>jet etc.</b>		Guide students to:  research the names and pictures of gemstone. Make a list of them.  discuss and classify gem stones according to organic and inorganic types.  - discuss significance of usage of gem stones 1. incorporated into metal works for beautification 2. for identification – social class wealth Mark special events eg. Wedding ceremony.	Student to:  classify and make a picture album of gem stones.  write short essay on role of gemstones as design element in jewellery
Natural	Man made									
<b>Inorganic</b> <b>diamond</b> <b>ruby</b> <b>aquamarine</b> <b>jade</b> <b>emerald</b> <b>agate</b>	<b>ruby</b> <b>sapphire</b> <b>topaz</b> <b>garnet</b> <b>emerald</b> <b>amethyst</b> <b>etc.</b>									
<u><b>Organic</b></u> <b>amber</b> <b>pearl</b> <b>jet etc.</b>										

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2 (CONT'D)</b>  <b>GEM STONES AND USAGE</b>	<p>The student will be able to:</p> <p>5.2.2 understand how gem stones are processed.</p> <p>5.2.3 apply basic gem setting techniques</p>	<p>Lapidary Gem cutting and polishing processes</p> <p>Common cuts (shapes) of gemstones e.g.</p> <ul style="list-style-type: none"> <li>- cabochon</li> <li>- brilliant</li> <li>- cameo</li> <li>- marquise</li> <li>- baguette</li> </ul> <p>Common setting techniques Prong/claw setting Tube setting, bezel setting, crown setting etc.</p>	<p>Guide students to:</p> <p>Understand how gemstones are cut shaped and polished</p> <p>Discuss types of cuts and polishing processes.</p> <p>practise common setting techniques.</p>	<p>Students to:</p> <p>shape stone (pebble) into a cabochon and set into a ring or pendant</p> <p>Assemble finish work, assess and appraise setting .</p>

# SENIOR HIGH SCHOOL - YEAR 2

## SECTION 6 JEWELLERY FOR SUSTAINABLE DEVELOPMENT

**General Objectives:** The student will:

1. understand the need for initiating strategies to sustain the environment as he/she utilises resources to produce jewellery.
2. acquire knowledge and skills to manage and operate a jewellery enterprise in an environmentally friendly manner.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>THE SIGNIFICANCE OF SUSTAINABLE DEVELOPMENT TO SOCIETY AND THE JEWELLERY INDUSTRY</b>	The student will be able to:  6.1.1 analyse strategies to sustain and maintain the environment as the source of raw materials and other inputs for the jewellery industry.	Sustaining and maintaining the environmental sources of raw materials for jewellery making. Positive approach: - Environmentally sound mining activities; - Re-forestation; - Waste management, etc. Negative approach: - Surface mining - Bushfires - Disregard for recycling, etc.	Guide Students to:  - identify the various sources of raw materials and discuss how resources can be acquired in a sustainable manner. - critically examine and discuss the issues, negative and positive approaches to the sources of jewellery materials.	Student to:  - list the strategies for maintaining the sources from which raw materials are obtained and provide suggestions and solutions.
<b>UNIT 2</b>  <b>CHALLENGES OF THE JEWELLERY INDUSTRY</b>	6.1.2 explain the challenges of the jewellery sector and suggest possible solutions.	Challenges within the jewellery sector of Ghana:  - problems of material acquisition.  - lack of customer confidence in made-in-Ghana precious jewellery due to dishonesty on the part of jewellers.  - compliance with hallmarking requirements.	- brainstorm to identify and highlight the challenges of the jewellery industry by discussing: - The role of professional jewellery association(s). - The role of hallmarking in the jewellery sector. - Quality control, finishing, packaging, etc. - Skill acquisition through further training. - Work ethics, human and moral values, attitude, etc. - Need for the inputs of consultants / experts, etc.	- identify challenges in jewellery and suggest solutions.

# SENIOR HIGH SCHOOL - YEAR 3

## SECTION 1

### ADVANCED JEWELLERY PRODUCTION TECHNIQUES

**General Objectives:** The student will:

1. develop proficiency in combining different techniques, processes and materials to produce jewellery items.
2. understand finishing processes and procedures and apply them to give final appearance to jewellery.
3. acquire in-depth knowledge on caring for and storing of jewellery items, and be proficient in and project report writing procedures.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>JEWELLERY PRODUCTION AND FINISHING USING VARIETY OF TECHNIQUES AND MATERIALS</b>	The student will be able to:  1.1.1 combine different techniques and materials for making and finishing jewellery.	Combining and using different materials for making items of jewellery such as beaded jewellery, chain, rings, earrings, bangles, necklace, etc. with fastening devices (findings).  Utilising a combination of techniques to make the above items e.g. soldering, riveting stitching, use of adhesives, etc.	Guide students to: <ul style="list-style-type: none"> <li>- discuss the various materials in terms of their general nature and suitability for incorporating into the same item of jewellery.</li> <li>- discuss the selected materials to be combined, the processes and techniques that are suitable for making such items of jewellery e.g. soldering, riveting, stitching, use of adhesives, etc.</li> </ul>	Student to: <ul style="list-style-type: none"> <li>- assemble produced jewellery items for analysis and appraisal in terms of aesthetics and function.</li> </ul>
<b>UNIT 2</b>  <b>APPLICATION OF JEWELLERY FINISHING SKILLS</b>	1.2.1 finish a jewellery item to enhance/impart the final look by applying appropriate finishing processes and procedures.	Jewellery finishing processes and techniques: <ul style="list-style-type: none"> <li>- Scorching</li> <li>- Painting</li> <li>- Engraving</li> <li>- Stippling</li> <li>- Lacquering</li> <li>- Polishing</li> <li>- Electroplating</li> <li>- Patination</li> <li>- Etching</li> <li>- Enameling</li> <li>- Sand/bead blasting, etc.</li> </ul>	<ul style="list-style-type: none"> <li>- design and make an item for a purpose by combining different techniques and materials.</li> <li>- discuss the suitability of finishing processes for particular materials and types of jewellery to be finished.</li> <li>- apply finishing processes on items of jewellery.</li> <li>- highlight safety issues connected with the processes: fumes, dust, chemical spillage, burns, etc.</li> </ul>	<ul style="list-style-type: none"> <li>- assemble items of jewellery and appreciate the finishing in terms of whether or not the process improves the look of items.</li> </ul> <p>discuss the safety issues associated with the processes and list safety measures to mitigate the hazards.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 3</b>  <b>CARE AND STORAGE OF JEWELLERY ITEMS</b>	The student will be able to:  1.3.1 care for and keep jewellery items properly.	Caring and keeping jewellery items.  Optimal conditions suitable for keeping jewellery made of various materials: woods, bone, leather, metal, glass, etc.  Adverse storage conditions: - Humidity - Excessive heat - Sunlight - Chemical exposure, etc.	Guide students to:  - demonstrate cleaning of jewellery items according to the materials they are made of. - clean items in mild non-corrosive solutions such as water and mild detergent. - polishing with non-aggressive medium such as rouge to restore lustre. - re-string bead jewellery. - replace damaged findings. - properly keep jewellery to prevent tarnishing and corrosion. - discuss optimal conditions for keeping jewellery of different materials.	Student to:  - find out how successful the cleaning process can be by test-cleaning of jewellery items and appraising the outcome.
<b>UNIT 4</b>  <b>PROJECT REPORT WRITING</b>	1.4.1 write and present a report on how projects are executed.	Outline of project report.  Introduction; analysis of need/problem topic and short history of jewellery. Define and explain the problem need, topic, etc. - Investigate - Suggest possible solution Design preparation. Execution of project: Evaluation Socio-economic value of jewellery items produced, care and maintenance. Procedure for appreciation: i. <u>identification</u> : of the title, artist, date, size, medium and location of work. ii. <u>description</u> iii. <u>technical qualities</u> : kinds of materials, tools and design and style. iv. <u>interpretation</u> : meaning of work function and its relation to culture.	- discuss the requirements of report writing, under the following headings:  - Identify the (problem/need) or work to be done e.g. cufflinks.   - prepare preliminary sketches through idea development, select appropriate materials and tools. - produce work according to sketches of various components and stages and label well. - apply knowledge in value of jewellery. - discuss the concept of appreciation using the various criteria e.g. identification, description, technical qualities and interpretation.	- write short notes on the care and storage of jewellery items.   - write a report on execution of work.   - exhibit works and appreciate each others works.

# SENIOR HIGH SCHOOL - YEAR 3

## SECTION 2

### ENTREPRENEURIAL SKILLS

**General objectives:** The student will:

1. identify and explain factors to consider when setting up a jewellery enterprise
2. develop an understanding, and appreciation of the functions of the manager of a jewellery enterprise.
3. acquire costing and pricing skills and explain the concept of marketing, selling and risk management in jewellery.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>ESTABLISHMENT OF AN ART INDUSTRY</b>	<p>The student will be able to:</p> <p>2.1.1 identify the types enterprises</p> <p>2.1.2 state and explain the main factors to consider in setting up an enterprise.</p>	<p>Types of Enterprises</p> <ol style="list-style-type: none"> <li>i. Sole proprietorship</li> <li>ii. Partnership</li> </ol> <p><u>Setting up an enterprise</u>            Factors to consider when setting up an enterprise:</p> <ol style="list-style-type: none"> <li>i. Capital: Capital is of two types namely start-up capital and working capital.               <ul style="list-style-type: none"> <li>• Start-up capital is needed to purchase tools, equipment and materials to start the business operation.</li> <li>• Working capital is needed to buy new materials to keep the business running, to pay for transportation, salaries, etc. each month. Much of the operating costs are paid from the working capital</li> </ul> </li> </ol>	<p>lead students to identify and discuss the advantages and disadvantages of the sole proprietorship and partnership type of enterprises.</p> <p>Lead students to discuss the important factors to consider when setting up an enterprise.</p> <p>Explain the differences between start-up capital and working capital, and give reasons why working capital is an important factor in keeping a business running.</p> <p>Make students aware of the dangers associated with land acquisition, e.g. registration, lease hold, free hold, inheritance etc.</p> <p>Let students be aware of the importance of the availability of market in the success of an industry.</p>	<p>Students to:</p>



	<b>SPECIFIC OBJECTIVES</b>	<b>CONTENT</b>	<b>TEACHING AND LEARNING ACTIVITIES</b>	<b>EVALUATION</b>
<b>UNIT 1 (CONT'D)</b>  <b>ESTABLISHMENT OF AN ART INDUSTRY</b>	The student will be able to:	<ul style="list-style-type: none"> <li>i. Land/location: the location of the industry is very important. Acquisition of land and securing the needed papers and approval must be highly considered to avoid litigation, demolition etc.</li> <li>ii. Labour: skilled and unskilled personnel that will assist in the production and marketing.</li> <li>iii. Market: Products from the industry have to be sold. There is therefore the need to conduct a survey to be aware of the need for the product.</li> </ul>		Students to:  write a short essay on the importance of setting-up and managing a small-scale enterprise.
	2.1.3 identify agencies that provide financial and technical assistance for setting-up and running an enterprise.	<p>Agencies that provide Financial support to small scale businesses.</p> <ul style="list-style-type: none"> <li>i. The Banks</li> <li>ii. National Board for Small Scale Industries. (NBSSI)</li> <li>iii. Export Promotion Council</li> <li>iv. Aid to Artisans</li> <li>v. Ghana Export Trade (GETRADE)</li> <li>vi. EMPRETEC, etc.</li> </ul> <p>Agencies that provide Technical assistance to small scale businesses:</p> <ul style="list-style-type: none"> <li>i. GRATIS</li> <li>ii. Aid to Artisans</li> <li>iii. GETRADE</li> <li>iv. ITTU, etc.</li> </ul>	<p>Students to brainstorm and come out with the list of institutions that provide financial and technical assistance.</p> <p>Get the assistance of resource persons to give a talk on how one can secure financial and technical support. From support agencies.</p>	<p>list organizations and establishments which offer assistance to small-scale business with their addresses, for discussion.</p> <p>visit financial institutions or offices of non-governmental organizations to enquire about their activities and document their findings for class discussion.</p>
<b>UNIT 2</b>  <b>MANAGING AN ENTERPRISE</b>	2.2.1 explain the concept of management in an enterprise.	<p>Concept of management.</p> <p>It is the act of organizing and controlling resources, e.g. human and material, to achieve targeted goals.</p>	<p>Lead students to identify and name some managers within the community.</p>	



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2 (CONT'D)</b>  <b>MANAGING AN ENTERPRISE</b>	The student will be able to:	<ul style="list-style-type: none"> <li>• Be nice to the customer he/she has the money to buy today, tomorrow or another time. Make sure she/he comes back again.</li> <li>• Do not be rude to him/her). The customer is always right.</li> <li>• Do not earn a bad name for your enterprise by arguing and quarrelling with customers).</li> <li>• The customer is a guest of the enterprise and must be treated well</li> </ul>		Students to:
<b>UNIT 3</b>  <b>COSTING, PRICING AND MARKETING</b>	2.3.1 identify the cost of a product and what constitutes the components of a total cost.	<p><b>Costing and Pricing</b></p> <p>The total cost of a product consists of two components: Direct Costs (Variable Costs) and Indirect (Fixed costs also called “overheads”).</p> <ol style="list-style-type: none"> <li>i. <u>Direct Cost</u> (i.e. variable costs or production costs) – consist of the cost of raw materials and wages. These are the direct costs for making a product. They are also called “variable” cost because the cost of materials and cost of producing vary from day to day and item to item.</li> <li>ii. <u>Indirect Costs</u> (Fixed Costs) Consists of rent, lighting cost, taxes, cost of adverts, depreciation cost of tools and equipment, telephone costs, transportation, postage, salaries, etc. “Indirect Costs” are also known as “Fixed Costs” or “Overheads”.</li> </ol>	<p>Teacher to explain the meaning of direct costs and indirect costs. Assist students to note that direct costs are also referred to as variable costs and indirect costs also referred to as fixed costs. Indirect costs contribute indirectly to production: rent, salaries, etc. do not directly enter into production. Note also that most of production cost is from direct costs, but some are also from indirect, i.e. telephone costs, adverts e.g. Direct Costs = Variable Costs. Indirect Costs = Fixed Costs or Overheads.</p> <p>Discuss the various factors which determine the pricing of products.</p> <p>Invite an expert in the field to help when necessary, e.g. the school accountant.</p>	interview traders on how they cost and price their goods.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 3 (CONT'D)</b>  <b>COSTING, PRICING AND MARKETING</b>	<p>The student will be able to:</p> <p>2.3.2 explain the factors that determine the price of a product.</p>	<p>Pricing is generally determined by market forces of supply and demand.</p> <p>Factors to be taken into account in pricing a product generally consist of</p> <ul style="list-style-type: none"> <li>• Cost of the product (total production cost).</li> <li>• Profit margin</li> </ul> <p>The two are combined in various price setting ways such as:</p> <ol style="list-style-type: none"> <li>i. <u>Introductory Price</u> (also called “market penetration price”, that is pricing below the actual market price to attract market share). This is only temporary pricing to get market share.</li> <li>ii. Using the “<u>going price</u>” system that is charging the same price other suppliers of the same product are charging.</li> <li>iii. Using the “<u>cost plus</u>” system i.e. adding a percentage to total cost as profit.</li> <li>iv. Using the <u>price discrimination</u> system known as “what the market can bear” pricing system e.g. selling at higher price in a city like Accra than in a town or village, depending upon the income levels of the different areas.</li> <li>v. Using the “price differentiation” system, that is selling the same thing, but using cheaper packaging for some; framing the same type of pictures differently and charging different price for them, etc. the same product may be packaged differently or combined differently with other additives and priced differently.</li> </ol>	<p>Let students:</p> <p>Discuss the various factors which determine the pricing of products.</p> <p>Discuss the factors that influence the pricing of a selected artistic item.</p> <p>Students to choose the best pricing system that will be suitable in their locality.</p> <p><b>Note:</b> a producer may sometimes find that the market price for his/her items is lower than his/her costs. In such cases, she/he has to try to make the product appeal to people with money who can pay the price for the product, or change and produce cheaper items.</p> <p>Discuss the four price setting ways in groups and report.</p> <p>Students to produce an item and price it. The product and the price must be presented for class discussion and assessment.</p>	<p>Students to:</p> <p>cost and price other items produced in class.</p> <p>discuss the merits and demerits of the four pricing systems.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 3 (CONT'D)</b>  <b>COSTING, PRICING AND MARKETING</b>	<p>The student will be able to:</p> <p>2.3.3 explain the meaning of "marketing"</p> <p>2.3.4 describe the basic strategies for efficient marketing.</p> <p>2.3.5 describe the strategies for selling products.</p>	<p>Concept of marketing – the art of offering a product for sale by using the skills of advertising and supplying.</p> <p>Basic marketing strategies:</p> <ul style="list-style-type: none"> <li>• Advertising by posters, handbills, TV, radio, word of mouth, telephone, internet, etc.</li> <li>• Exhibitions, Bazaars, Fairs.</li> <li>• Effective decoration and finishing.</li> <li>• Attractive packaging</li> <li>• Transportation (if possible)</li> </ul> <p>Selling by:</p> <ul style="list-style-type: none"> <li>• Wholesale – selling by large quantities (with quantity discount)</li> <li>• Retailing items in smaller quantities</li> <li>• Door to door selling.</li> <li>• Mail or export.</li> </ul>	<p>Determine the price of items they have made by using each of the following pricing systems described in the content ("Going price", "cost plus", "price discrimination.", and "price differentiation").</p> <p>Students to compare each of the prices to the cost of producing the item and determine the actual profit margin.</p> <p>Assist students to explain the meaning and purpose of marketing.</p> <p>Guide students to discuss the strategies for selling products.</p> <p>Students to discuss ways for selling artistic items produced in class.</p>	<p><b><u>Assignment</u></b></p> <p>write an essay explaining three basic strategies for efficient marketing.</p> <p>design posters for marketing selected items. (Teacher to evaluate posters and other adverts and provide students formative feedback).</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 3 (CONT'D)</b>  <b>COSTING, PRICING AND MARKETING</b>	<p>The student will be able to:</p> <p>2.3.6 use the “Break-Even Analysis” to determine when an enterprise is making profit</p> <p>2.3.7 analyze the risks of a business.</p> <p>2.3.8 develop a plan for controlling business risks (direct risks)</p>	<p><u>Break-Even-Analysis.</u>  In most cases, an enterprise does not start making profit as soon as it starts. Suppose one is making and selling items at 5.00 Ghana cedis on an item. Suppose also that the price 5.00 consists of 4.00 Ghana cedis as production cost and 1.00 as mark up for profit margin). Consider that the business has rent, light, transport and telephone bills and salaries of three assistants to pay each month. The entrepreneur will be able to cover his/her direct and overhead costs a month if she/he is able to sell (40.00 Ghana cedis ÷ 5.00 Ghana cedis per item) 9 items a month. Selling 8 items a month does not give a business profit; it only gives enough money to cover direct and indirect costs, and is the break-even point for its owner, if it is able to sell more than 8 items a month. The break-even point is hence the point where revenue (from sales) is equal to the cost of products sold.</p> <p>Business losses are not due to the work of witches, ghosts or gods. They are due to types of risks a business faces. These are Direct risks (pure risk) and Indirect risk.</p> <p><u>Direct risk involves:</u></p> <ul style="list-style-type: none"> <li>• theft (also known as larceny)</li> <li>• fire</li> <li>• misuse of capital and profit</li> <li>• through irresponsible spending.</li> </ul>	<p>Let students:</p> <p>Using the example in content, and using realistic amounts of money, guide students to discuss the concept of “break-even analysis”.</p> <p>Explain the concept of “break-even analysis”.</p> <p>Use other examples to strengthen their understanding of the concept that profit for the entrepreneur starts only after the business has passed the break-even point.</p> <p>Explain what an entrepreneur means when she/he says that his/her business is just breaking even.</p> <p>Discuss the two types of risks a business faces.</p> <p>- Explain why some businesses fail.</p> <p>Brainstorm and come out with the two types of business risks and explain their differences.</p>	<p>Students to:</p> <p>group to analyze the break even point of a mock enterprise.</p> <p>Investigate factors which lead to the collapse of enterprises in their locality and report for class discussion.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3 (CONT'D)</b></p> <p><b>COSTING, PRICING AND MARKETING</b></p> <p><b>Business Risks</b></p>	<p>The student will be able to:</p> <p>2.3.9 develop a plan for controlling business risks (indirect risks).</p>	<p><u>Indirect Risk</u> involves:</p> <ol style="list-style-type: none"> <li>i. lack of sales due to faulty or low quality products, or due to wrong business location.</li> <li>ii. currency inflation.</li> <li>iii. introduction of new taxes.</li> <li>iv. changes in labour laws.</li> </ol> <p>Indirect risks are more difficult to control and account for the greater portion of business losses.</p> <p>Controlling business risks:</p> <p><b>Theft:</b></p> <ol style="list-style-type: none"> <li>i. regular checks of stocks and finished products.</li> <li>ii. acquire an bookkeeping accountant to check the business accounts every month.</li> <li>iii. increase vigilance and security to minimize theft.</li> </ol> <p><b>Fire:</b></p> <p>Get qualified electrician to do the electrical connections to avoid likelihood of fire from faulty work.</p> <p><b>Low sales</b> (due to wrong location): relocate the business to a more promising area of the town.</p> <p>For minimizing or controlling inflation, new labour laws, etc. one has to be in constant touch with the relevant Ministries to know what new changes are planned that may affect one's business.</p>	<p>Let students:</p> <p>Discuss reasons why indirect risks are difficult to control.</p> <p>Describe ways for controlling theft, fire, and low sales.</p> <p>Lead students to discuss location as a factor contributing to sales.</p>	<p><u>Assignments</u></p> <p>Investigate the factors that make enterprises grow and prosper and report in class.</p> <p>Students in groups develop a plan for minimizing some of the business risks discussed in class.</p>

## GLOSSARY

1. **Vocation** : A strong feeling of suitability for a particular career. This is regarded as a divine call to a career in the church.
2. **Fabrication** : Construction processes in the Arts. When applied to jewellery making, fabrication refers to the art of manipulating  
a. materials, including metal, by processes such as cutting, shaping, forming and joining.
3. **Casting** : A method of forming an object by allowing a liquid such as molten metal to solidify in a shaped hollow called a mould.
4. **Centrifugal** : Moving or tending to move from a centre.
5. **Gravity** : The force that gives weight to objects (with mass) and causes them to fall to the ground when dropped.
6. **Portfolio** : A large flat case used especially for carrying pictures, documents etc. or a set of pictures or other pieces of work that an  
a. artist, photographer etc. has done (hard or soft copies)
7. **Equipment** : Necessary implements used for the execution of a project, job or operation.
8. **Alloy** : A metal composed of two or more metals or in combination with a chemical as in bronze brass and solders.
9. **Soldering** : The joining of metals with another lower flow temperature metal which is an alloy. The process of joining metal using an  
a. alloy called solder.
10. **Sprue** : Part of the mould system, a channel which allows molten metal to flow from the sprue basin to the hollow in the mould.
11. **Tripoli** : A coarse abrasive used in the first stages of polishing metal.
12. **Etching** : The controlled corrosion of a surface with acid. In Jewellery the process is used to form surface Decoration on metal.  
a. Some parts of the surface are protected by an acid-resisting substance while others are eaten away by the acid.
13. **Chasing** : Process of punching a relief design in metal from the front.
14. **Carat (1)** : A unit of weight, standardized as being equal to  $1/5^{\text{th}}$  of a gram. Weight designation of gem stones.
15. **Carat (2)** : A measure of the fineness of gold or gold alloy. The number of carats is the number of parts by weight of pure gold in 24  
a. parts of the metal. Carat is spelt Karat by Americans.
16. **Engraving** : The process of cutting away the surface of a substance using a sharp steel tool called a graver.
17. **Electroplating** : The process of depositing a layer of metal on an object by means of an electric current (electrolysis).
18. **Electroforming** : The process of forming metal objects by using an electric current to deposit metal over a substrate.



19. **Annealing** : The process of heating and cooling metal to make it softer and thus easier to work with. The required temperature for  
a. annealing, the duration of heating and the rate of cooling vary according to the metal used.
20. **Base metal** : Non-precious metal such as aluminium, copper, iron and nickel.
21. **Filigree** : A decoration of fine wire, usually gold or silver and often twisted or plaited soldered, formed with or without a thin  
a. background metal.
22. **Fire scale** : An oxide forming on the surface of copper bearing alloys that contributes to jewellery discolouration caused by prolonged  
a. and excessive heating. Also referred to as, fire stain.
23. **Flux** : A chemical in liquid, paste or dry form used during the soldering or casting processes to assist in the flow of metal and to  
a. hinder the formation of oxides.
24. **Piercing** : The drilling or punching of small metal holes in metal for functional or decorative purposes. The act of sawing with the  
a. jeweller's saw.
25. **Pickle** : A solution (usually acidic) used during construction to clean flux and oxides from metal after heating e.g. after soldering.
26. **Borax** : A type of flux commonly used when soldering jewellery.
27. **Granulation** : The decoration or texturing of a surface by the application of tiny balls usually of gold or silver.
28. **Hallmark** : A series of marks made in an item of gold, silver or platinum as a guarantee of the fineness of the metal.
29. **Findings** : Mass – produced jewellery components, such as catches, joints, jump rings and clips, which are commonly used, even on  
a. hand-made jewellery. When made by hand, findings are sometimes called fittings.
30. **Forging** : The process of hammering metal to change in shape. Some metals can be hot forged while others cannot.
31. **Lapidary** : A craftsperson who cuts and engraves and polishes gemstones other than diamonds. The term is also applied to the  
a. craft.
32. **Shank** : The part of a ring that passes around the finger.

## RECOMMENDED BOOKS

- |   |   |                                    |
|---|---|------------------------------------|
| 1. Metalwork Technology                                   | - | J.K. N. Sackey and S.K. Amoakohene |
| 2. The Complete Metalsmith: Professional Edition          | - | Tim McCreight                      |
| 3. Practical Casting: A Studio Reference, Revised Edition | - | Tim McCreight                      |
| 4. Jewelry Making Manual (Jewelry Crafts)                 | - | Sylvia Wilks                       |
| 5. Jewelry Making   | - | Jinks McGrath                      |
| 6. Jewelry Concepts and Technology                        | - | Oppi Untracht                      |
| 7. Jewelry Bench Reference                                | - | Harold O'connor                    |
| 8. Theory and Practice of Goldsmithing (Jewelry Crafts)   | - | Erhard Brepohl                     |

## BASIC TOOLS

1. Ordinary Hammer
2. Planishing Hammer
3. Raising Hammer
4. Ball peen Hammer
4. Scriber
5. Mallet
6. Bench Block
7. Tweezers
8. Soldering Tweezers
9. Piercing Saw Frame
10. Saw Blades
11. Assorted Drill Bits.
12. Hand Drill
13. Centre Punch
14. Hand Burnisher
15. Sheet Metal Shears
16. Solder cutting Shears
17. Assorted Hand files
18. Needle Files
19. Dapping die, Punches and Disc Cutter
20. Set of Hand Pliers: Flat Nose, Chain, Round, Ring etc
21. Ring Clamp
22. Soldering Torch
23. Bench Brush
24. Respirator Mask
25. Spring Divider
26. Millimetre Gauge
27. Chasing Hammer
28. Assorted Chasing Tools
- 29. Assorted Engraving Tool**