

# MINISTRY OF EDUCATION



REPUBLIC OF GHANA

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

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# TEACHING SYLLABUS FOR SCULPTURE (SENIOR HIGH SCHOOL)

## RATIONALE FOR TEACHING SCULPTURE

Sculpture as a component of Visual Arts embraces all art activities that result in two-dimensional and three dimensional forms. A society achieves its cultural significance through its production in the Visual Art. As a people, we are identified through our art works. To develop pride and patriotism, it is important that our young people acquire love for the cultural and aesthetic values in Ghanaian arts. The impact of Sculpture is presently felt on education, health and communication and, in fact, on the total lifestyles of societies. Sculpture has contributed to advances in art and technology. Sculpture has consequently, made tremendous impact on the economic development of nations and improve the quality of life in most parts of the world. In Ghana, the combined knowledge and skills in Sculpture, Science and Technology reinforces our survival and development. To this end, it is important to help our young people to develop artistic skills and capability in Sculpture not only to contribute to the development and significance of Ghanaian art forms but also through their application to every sphere of our developmental efforts.

The content of the course in Sculpture 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 for students terminating their education at the end of Senior High School and who would wish to enter into the sculpture vocation.

## GENERAL AIMS

The syllabus is designed to help students to:

1. appreciate Sculpture as an integral part of industrial development and living.
2. develop self-esteem, pride, confidence and patriotism through appreciation of their own sculpture products.
3. develop the capacity for creativity using indigenous and contemporary tools and materials in Sculpture.
4. develop efficient, manipulative, aesthetic and technical skills using tools and materials to make Sculpture products.
5. acquire perceptual and analytical skills through the processes of self-expression and communication.
6. develop critical thinking and practical skills for producing high quality sculpture work.
7. be aware of the variety of vocations available in the field of Sculpture and opt to choose a career in the field of art.

## SCOPE OF CONTENT

This course covers the history, principles and practice of Sculpture as a vocation. It has enough activities to equip the learner with problem-solving skills for life. It also provides suggestions for art appreciation and evaluation of art work.

## PRE-REQUISITE SKILLS AND ALLIED SUBJECTS

Success in Sculpture requires foundation study in Basic Design and Technology offered at the Basic Education level. Students offering a course in Sculpture should have acquired satisfactory literacy and numeracy skills including basic skills in drawing and designing, as well as knowledge in Social and Environmental studies at the Junior High School level. The General Visual Arts programmes comprise nine major subjects with their individual teaching syllabi. The subjects are General knowledge in Art (compulsory) and the following electives which are put into two groups as follows:

### Group A

Graphic Design  
Painting  
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 Arts 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 Sculpture syllabus has been structured to cover three years of Senior High School. The structure and organization of the Sculpture syllabus is on the next page.

## STRUCTURE AND ORGANIZATION OF THE SCULPTURE SYLLABUS

<b>SHS 1</b>	<b>SHS 2</b>	<b>SHS 3</b>
<p><b>SECTION 1: SCULPTURE AS A VOCATION (p.1-3)</b></p> <p>UNIT 1: History and rationale for studying sculpture            UNIT 2: The sculpture industry in Ghana.            UNIT 3: History of Ancient sculpture</p>	<p><b>SECTION 1: DESIGNING AND MAKING SCULPTURE II (p. 26-35)</b></p> <p>UNIT 1: Drawing and designing.            UNIT 2: Modeling.            UNIT 3: Casting.            UNIT 4: Traditional casting.            UNIT 5: Carving.            UNIT 6: Traditional carving.            UNIT 7: Assemblage and construction.            UNIT 8: Lettering in sculpture.</p>	<p><b>SECTION 1: ADVANCED PRODUCT DESIGN AND TECHNIQUES (p. 49)</b></p> <p>UNIT 1: Product design.</p>
<p><b>SECTION 2: MATERIALS, TOOLS AND EQUIPMENT (p. 4-12)</b></p> <p>UNIT 1: Materials in sculpture.            UNIT 2: Choice and use of materials.            UNIT 3: Sustainable use of sculptural materials.            UNIT 4: Types of tools and equipment.            UNIT 5: Care, maintenance and storage of tools.            UNIT 6. Healthy studio Practices</p>	<p><b>SECTION 2: DECORATION AND FINISHING (p. 36-41 )</b></p> <p>UNIT 1: Decoration and finishing.            UNIT 2: Quality control.            UNIT 3: Packaging and handling.            UNIT4: Perception and Aesthetics</p>	<p><b>SECTION 2: ENTREPRENEURSHIP (p. 50-53)</b></p> <p>UNIT 1: Managing a sculpture Enterprise.            UNIT 2: Marketing.            UNIT 3: Controlling Business risk.            UNIT 4: The export market for sculpture.            UNIT 5: The ideal Studio.</p>
<p><b>SECTION 3: DESIGNING AND MAKING SCULPTURE (p. 13-20)</b></p> <p>UNIT 1: Basic Drawing.            UNIT 2: Idea Development and Preliminary Design.            UNIT 3: Computer Aided Design in Sculpture.            UNIT 4: Modelling.            UNIT 5: Casting.            UNIT 6: Carving.            UNIT 7: Assemblage and Construction.</p>	<p><b>SECTION 3: EXHIBITION (p. 42-48)</b></p> <p>UNIT 1: Exhibition.            UNIT 2: Appreciation and criticism            UNIT 3: History of contemporary sculpture</p>	<p><b>LIST OF TOOLS, MATERIALS AND EQUIPMENT : : : Page 54</b></p> <p><b>GLOSSARY : : : Page 55 – 57</b></p> <p><b>REFERENCES : : : Page 58</b></p>
<p><b>SECTION 4: BASIC ENTREPRENEURIAL SKILLS AND PROFESSIONAL PRACTICES (Pg. 21 – 25)</b></p> <p>UNIT1: Building of a Portfolio            UNIT2: Developing a Business Plan            UNIT3: The Artist's Statement            UNIT4: Business Brochure and Card</p>		

## TIME ALLOCATION

Sculpture is allocated forty (40) minutes per period on the time table. Elective courses start in the first term of SHS1. The period allocation for Years 1- 3 is indicated in the table below:

YEAR	1	2	3
PERIODS PER WEEK	6	6	6

Sculpture is allocated four (4) periods a week in the 1st year, five to seven (5-7) periods a week in the 2nd year and five to six (5-6) periods a week in the 3rd year on the time table.

## SUGGESTIONS FOR TEACHING THE SYLLABUS

### General Objectives

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

Sections and Units: Each section of the syllabus is divided into units, where a unit consists of a body of knowledge and skills that form a logical aspect of the section.

Column I - Units: The Units in Column 1 provide the major topics of the section. You are expected to follow the unit topics according to the linear order in which they have been presented. However, if you find at some point that teaching and learning 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 1.2.2 or 2.2.1. These numbers are referred to as "Syllabus Reference Number. 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, 1.2.2 means: Section 1, Unit 2 (of Section 1) and Specific Objective 2. In other words, 1.2.2 refers to Specific Objective 2 of Unit 2 of Section 1. Similarly, the syllabus reference number 2.2.1 simply means Specific Objective number 1, of Unit 2 of Section 2.

You will note also that specific objectives have been stated in terms of the students 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 individualizing 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 tools and materials required for the activities well in advance. The collection of tools and 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 school or in the immediate environment, the teacher should try to contact persons in higher institutions and in the community for help.

As students begin work on 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, resource persons may be invited to carry out demonstrations and talk about their work to the class. Field trips may be organized to the community.

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 will in many cases, help to provide your class with more knowledge and skills. The column also suggests tools and materials that can be used for the unit or lesson.

Column 4 -Teaching and Learning Activities (T/LA): T/LA that will ensure maximum student participation in the lessons is presented in Column 4. The teaching of this subject should be activity oriented. The major portion of class work and other assignments should emphasize practice. Group work and other participatory methods should be emphasized in the teaching and learning process. In this particular subject, students are expected to acquire valuable basic practical skills to serve as a foundation for further skill development. Observe and also ensure that students exhibit skills and values in their behaviour and in creative activities.

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, 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 students go through in performing various activities, and the products students make. Processes and products are both equally important and need observation 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. Lastly, 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, summarize, give examples, etc. means that the student has understood the lesson taught. Similarly, being able to develop, plan, construct, etc. means that the student can "apply" or use the knowledge acquired in some new context. 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.

As already stated, profile dimensions describe the underlying behaviours for teaching, learning and assessment. Sculpture 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 emphasis that the teacher should give in the teaching, learning and testing processes. Combining the three dimensions in the teaching and learning process will ensure that sculpture is taught and studied not only at the cognitive level, but will also lead to the acquisition of practical skills in the subject.

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

#### *Application of Knowledge (AK)*

Ability to use knowledge or apply knowledge, as implied in this syllabus, has a number of learning/behaviour levels. These levels include application, analysis, synthesis, and evaluation. These may be considered and taught separately, paying attention to reflect each of them equally in your teaching. The dimension "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, plan, demonstrate, discover etc.
Analysis	The ability to: break down materials into its component parts; to differentiate, compare, distinguish, outline, separate, identify significant points etc, recognize unstated assumptions and logical facilities, recognize 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 involve pre-imaging to solve practical problems, demonstration of manipulative skills using tools/equipment and materials to carry out practical operations. The teaching and assessment of practical skills should involve projects and creative practical tasks.

“Practical Skills” is given 60 per cent of the teaching, learning and testing time to emphasize the point that Sculpture is more toward the acquisition of practical skills at the SHS level. The remaining 40 per cent can be used for theoretical aspect involving acquisition of knowledge and understanding.

Skills required for effective practical work are the following:

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

Tools/Equipment/Material Handling: Students should be able to handle and use tools/equipment/materials properly for practical work to acquire the needed manual skills.

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 imitate the techniques he/she has observed for performing other tasks.

Craftsmanship/Draftsmanship: This involves the skilful and efficient handling of materials and tools for accomplishing specific tasks according to the level of the students.

Perception: The student should be able to respond to his/her environment using all the senses i.e. seeing, hearing, smelling, touching and tasting. 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 works of art and not copy existing works. You can help them to be creative and original by appreciating every little creative effort, technique and product they may develop.

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



The action verbs provided under the various profile dimensions should help you to structure your teaching to achieve the set objectives. Select from the action verbs provided for your teaching, in evaluating learning before, during and after the instruction.

## FORM OF ASSESSMENT

Sculpture will be assessed by practical projects at the end of each term. Assessment of the products/artifacts will follow these guidelines:

Originality	20%
Design	20%
Suitability	20%
Craftsmanship	40%

### 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 School-Based Assessment (SBA) and for end-of-term examination. The practical assessment should cover:

- (a) Processes
- (b) Products.

Assessment of processes: Look for creative and critical thinking, originality of ideas in the work; the design, correct handling and use of tools, materials and equipment. The degree of involvement, attitude to 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 30:70 to reflect the importance of the practical nature of the options.

## INTERNAL AND EXTERNAL EXAMINATIONS

The assessment procedure you use i.e. class tests, home work, projects, etc. must be developed in such a way that it will consist of a sample of the important objectives taught over a period. The chart below shows the recommended examination structure for SHS1-3. The examination will consist of two papers, Paper 1, Paper 2 and the SBA.

**Paper 1:** (2 hours 50 minutes). 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 within 40 minutes 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 within 2 hours 10 minutes for 50 marks. 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 allocated 40 minutes and marked out of 20 and the remaining three answered within 90 minutes (30 minutes each) and marked out of 30 (10 marks 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 should be given 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

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

School Based Assessment (SBA) system, formerly referred as continuous assessment will be introduced into the Senior High School from September, 2009. SBA is a very effective system for teaching and learning if carried out properly. 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 schools in the country
- Provide reduced assessment tasks for subjects studied at each of the school levels
- Provide teachers with guidelines for constructing assessment items/questions and other assessment tasks
- Introduce standards of achievement in each subject and in each class of the school system
- 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 arrangements for School Based Assessment may be grouped in categories as follows: Projects, Class Tests, Homework and Terminal Test.

1. Projects: These are tasks assigned to students to be completed over an extended time.

These will include the following:

- i) practical work
- ii) experiments
- iii) investigative study (including case study)

A report must be written for each project undertaken.

2. Class Tests These will essentially consist of written assignments covering topics/units completed at some specific period within the term.
3. Home Work: This is an assignment to be completed within a day or a couple of days. Homework may consist of essays, summaries, and other problems to be solved.
4. End-of-Term Examination :  
The end –of-term examination 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 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 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 objectives studied in Term 3.

Senior High Schools will be provided with information on the structure of the new SBA.

### **Combining SBA marks and End –of –Term Examination Marks**

The new SBA system is important in raising student’s school performance. For this reason, the 150 marks for SBA is scaled to 50. The total marks for end –of-term test will also be scaled down 50 before adding the SBA marks and end-of-term examination marks to determine students’ end of term results. SBA and end-of-term marks will hence be combined in equal proportions of 50:50. The equal proportions will affect only assessment in the school system. It will not affect the SBA mark proportion of 30% used by WAEC for determining examination results at the BECE.

### **GRADING PROCEDURE**

To improve assessment and grading and also introduce uniformity in schools, it is recommended that schools adopt the following grade boundaries for assigning grades on students’ test results.

Grade A:	80 - 100%	-	Excellent
Grade B:	70 - 79%	-	Very Good
Grade C:	60 - 69%	-	Good
Grade D:	45 - 59%	-	Credit (Satisfactory)
Grade E:	35 - 44%	-	Pass
Grade F:	34% and below	-	Fail

In marking your class examination scripts, it is very important that you develop a marking scheme. 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 totaling 18 marks, and then give the remaining 2 marks or part of it for organisation of answer. For objective test papers you may develop an answer key to speed up the marking.

In assigning grades to students’ test results you may apply the above grade boundaries and the descriptors which indicate the meaning of each grade. The grade boundaries are also referred to as grade cut-off scores. For instance, the grade cut-off score for a B grade is 65% 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.

# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 1

### SCULPTURE AS A VOCATION

**General objectives:** The student will:

1. be aware of a working knowledge of the term “sculpture”.
2. develop an awareness of the scope of the sculpture industry.
3. appreciate the career opportunities in sculpture for their benefits.
4. become aware of the history and development of ancient sculpture.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>HISTORY AND RATIONALE FOR STUDYING SCULPTURE</b>	<p>The student will be able to:</p> <p>1.1.1 explain the term sculpture.</p> <p>1.1.2 identify different types of sculpture and their functions.</p> <p>1.1.3 identify various career opportunities in sculpture</p>	<p>Meaning of sculpture The term “Sculpture” means any art work in three dimensional form consisting of modelling, carving , casting, assemblage and construction.</p> <p><u>Types of Sculpture</u> -relief, in-the round. <u>Sizes of sculpture</u> miniature, life size, heroic and colossal, mobiles and stables - modern sculpture, Installations. <u>Functions</u></p> <ul style="list-style-type: none"> <li>• for cultural purposes</li> <li>• for religious,</li> <li>• re-beautification etc</li> </ul> <p><u>Job opportunities</u> Carving, Portrait making, Making of artificial limbs, Tombstone, making of puppets, plaque, Fountain making, Model making. Furniture, Stage design and film props, Sculpture teaching, Curator/ art dealer, Restorer, statues and monuments making, Modelling.</p>	<p>Guide Students to:</p> <p>Brainstorm to bring out the meaning of the term “sculpture” and its socio-economic importance to the society.</p> <p>Using pictures/diagrams discuss different types of sculpture and indicate their functions and purpose.</p> <p>discuss and describe various career opportunities available in sculpture in terms of tasks, skills and products.</p> <p>interview sculptors and search from the internet about job opportunities in the sculpture industry..</p>	<p>Students to:</p> <p>State the meaning of Sculpture. Give their own understanding of the term sculpture</p> <p>Compare and contrast different types of sculptures in their environment or as observed from literary sources (books, magazines etc).</p> <p>List and describe careers in sculpture and their social importance. Investigate, describe and differentiate jobs/careers in sculpture in terms of economic, therapy, recreation, record keeping,</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 2</b></p> <p><b>THE SCULPTURE INDUSTRY</b></p>	<p>The student will be able to:</p> <p>1.2.1 describe the life and works of outstanding professional sculptors in Ghana.</p> <p>1.2.2 identify various industries as well as institutions for further training in sculpture.</p>	<p><u>Some Ghanaian sculptors</u> Kofi Antubam. Saka Acquaye, Vincent Kofi, Oku Ampofo, B.K. Dogbe, Azii Akator, Kwaku Andrews, Isaac Opoku- Mensah, Obeng Bonsu, Kofi Setordzi, Nii Owoo, Mohammed Amin, James Acheampong, George Obeng, Edwin Bodjawah, J.C. Otchere, Nti Amoah, El-Anatsui, Francis Boateng, J.C. Sarpong, Sefa Twerefour, Kwame Opoku-Bonsu, Annor Anim</p> <p>Institutions available for further education and training in sculpture in Ghana : KNUST, Kumasi. University of Education, Winneba; Opportunity Industrialization Centre (OIC); Polytechnics, etc.</p> <p>Apprentiship and on the job training in various individual studios and Industries: Cultural centre, Aburi, Ahwia near Kumasi, Kpando.</p>	<p>Guide Students to:</p> <p>Discuss life and works of sculptors and their:</p> <ul style="list-style-type: none"> <li>• Background</li> <li>• Training</li> <li>• Style</li> <li>• themes</li> <li>• Sources of inspiration</li> <li>• works</li> </ul> <p>Invite a prominent sculptor(s) from the community to explain their styles and source of inspiration</p> <p>discuss the contribution of the various art industries and institutions to the development of sculpture and the nation in general.</p>	<p>Students to:</p> <p>Interview some of the practitioners.</p> <p>Mention 10 Ghanaian sculptors and analyze their works in terms of style and source of inspiration</p> <p>Take trips to: Galleries, Institutions, Museums, Studios, Art and Craft Centres Industries where work of professional sculptors are found and write a report.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 2 (CONT'D)</b></p> <p><b>THE SCULPTURE INDUSTRY</b></p> <p><b>UNIT 3</b></p> <p><b>HISTORY OF ANCIENT SCULPTURE</b></p>	<p>1.2.3 describe the socio-economic importance of sculpture.</p> <p>1.3.1 trace the trend of development and the usefulness of sculpture in ancient times.</p> <p>1.3.2 give reasons for studying the history of sculpture.</p>	<p><u>Socio-economic importance of sculpture:</u></p> <ul style="list-style-type: none"> <li>-Income generation</li> <li>-self expression</li> <li>-therapy</li> <li>-tourism</li> <li>-generation of foreign exchange.</li> <li>-beautification of the environment</li> </ul> <p>Development and usefulness of Sculpture over the ages:</p> <ul style="list-style-type: none"> <li>- pre-historic</li> <li>-Ancient Greek(Archaic, Classical, Hellenistic)</li> <li>-Ancient Roman</li> <li>-Ancient China</li> <li>-Africa, Ancient Egypt etc.</li> </ul> <p><u>Reasons for Studying History of Sculpture:</u></p> <p>Application- apply the knowledge and skills of the past to present life  Comparison- basis for comparison  Focus- on techniques, styles, innovations, etc  Patriotism- deriving national identity and pride  For inspiration</p>	<p>Guide students to discuss the socio-economic importance of sculpture to the nation on: poverty alleviation , health, education, games and sports. Politics and Religion, architecture, etc.</p> <p>Discuss how sculpture developed in ancient times in terms of:</p> <ul style="list-style-type: none"> <li>-materials</li> <li>- techniques</li> <li>- uses</li> <li>- themes</li> </ul> <p>Form groups to discuss the reasons for studying history of sculpture and its impact on the development of the society</p>	<p>Students to:</p> <p>Mention and briefly explain the socio-economic importance of sculpture and its impact on the society.</p> <p>Research to bring out specific areas where sculpture has played a significant role in their development</p> <p>Describe how sculptures were produced and used .</p> <p>Research and write about the universal themes in ancient sculptures</p> <p>Compare relationships of works of ancient sculptures to the present times in terms of materials, tools, themes and use.</p>

# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 2

### TOOLS, MATERIALS AND EQUIPMENT

**General objectives:** The student will:

1. recognize the characteristics of tools and materials and use them appropriately.
2. develop skill in the use of materials and tools in safe, responsible and sustainable way.
3. identify the socio-economic importance and value of sustainable use of tools and materials.
4. Recognize and demonstrate healthy practices in their working environment

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b> <b>MATERIALS IN SCULPTURE</b>	The student will be able to: 2.1.1 identify and list materials used in sculpture. 2.1.2 analyse the source of tools and materials in sculpture. 2.1.3 prepare and store materials in sculpture.	<p><b>Materials in sculpture</b>            Clay, wood, stone, metal, fibres, fabrics, sawdust, cement, P.O.P. rubber, shell, leather, beads, fibre glass, polythene, polyfoam, glass, linoleum, plastics, etc</p> <p><b>Storing of materials</b>            Clay: clay pits/bins, wrapped in polythene, moist cotton cloths etc Cement, P.O.P. Wood: Dry place, Metal: protect from weathering and acid rain by coating with grease, paints etc</p> <p><b>Source of Tools and Materials</b>            Wood: forest, farm, sawmills, timber markets            Clay: river banks, marshy areas, valleys, areas dug for wells, road construction sites etc.            Other materials: environments and hardware shops, etc.</p> <p><b>Tools</b>            Blacksmith shops, carpentry shops, hardware and equipment shops, etc.</p>	Guide Students to: -discuss and prepare a list of materials for sculpture and state their characteristics - to discuss and demonstrate how to prepare and store various materials for sculpture. -discuss the source of materials: forest, river banks, marshy areas, valleys factories, workshops, construction sites markets, sawmills etc. <b>NB:</b> Group students to assemble various materials and in a class discussion analyze their sources and modes of acquisition.	Students to: - collect and display materials suitable for sculpture from their immediate surroundings - discuss in writing the need and importance of proper storage of materials. - list some materials in sculpture and match them with their sources.



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2</b>  <b>CHOICE AND USE OF MATERIALS</b>	<p>The student will be able to:</p> <p>2.2.1 determine the characteristics and suitability of materials for making sculpture.</p> <p>2.2.2 prepare and make sculptural materials suitable for sculpture work.</p>	<p><b><u>Determining the characteristics of material through exploration</u></b>  Dense and bulky material for carving  wood, stone, bones, etc.  <u>Soft pliable materials for modelling</u>  clay, wax, plasticine, cement, P.O.P. etc.  <u>Liquid and molten materials for casting</u>  metal, cement, P.O.P, wax, rubber, silicon etc</p> <p><u>Note</u>  All sculptural material can be used for assemblage and construction.</p> <p><b><u>Making materials suitable for Sculpture work</u></b>  <u>Wood seasoning</u>  A process of reducing the moisture content in wood  <u>Types</u>  open air }  undershed } Natural air drying  kiln }  solar }  <u>clay preparation</u>  soaking/pounding  wedging, kneading</p>	<p>Guide Students to:</p> <p>- work in small groups to explore, identify and describe the characteristics of materials suitable for sculpture e.g.  Organic and inorganic  Solid/ liquid  Paste/powder  Acid, inflammable, volatile, breakable</p> <p>-explore through experiments to determine the working characteristics of materials.</p> <p>practise in groups the seasoning of wood using the natural air drying method e.g.  Open air, undershed</p> <p>Prepare lumps of both washed and unwashed clay to be used for sculpture.</p> <p><b><u>Note</u></b>  -clay can be washed to make it finer for specific work  -coarse aggregate can also be added to clay to reduce plasticity</p>	<p>Student to:</p> <p>state the characteristics of the various materials and determine their suitability for specific jobs.</p> <p>visit factories and saw – mills and write a report on the process used by the factories visited to season wood.</p> <p>-describe the process of wood seasoning and clay preparation.</p> <p>discuss the benefit of the preparation of sculpture materials to the sculptor and the environment</p>
<b>UNIT 3</b>  <b>SUSTAINABLE USE OF SCULPTURAL MATERIALS</b>	<p>2.3.1 explain the concept of sustainability of materials.</p>	<p><b><u>Sustainability of Materials:</u></b>  Ability to ensure constant supply of materials through economic use, avoidance of waste, replenishing sources by both natural and artificial means.</p>	<p>Brainstorm to bring out further meaning of the concept of sustainability of materials and the practice of sculpture</p>	

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3 (CONT'D)</b></p> <p><b>SUSTAINABLE USE OF SCULPTURE MATERIALS</b></p>	<p>The student will be able to:</p> <p>2.3.2 analyse the socio-economic value of the sustainable use of sculpture materials.</p> <p>2.3.3 propose how to use and protect materials sustainably.</p> <p>2.3.4 demonstrate skills and human values in using sculptural materials sustainably.</p> <p>2.3.5 recycle materials to produce sculpture.</p>	<p><b><u>Socio-economic importance</u></b></p> <ul style="list-style-type: none"> <li>- Income generation</li> <li>- arresting deforestation minimizing health hazards through collecting waste materials from the environment</li> </ul> <p><b><u>Sustaining the use of materials</u></b></p> <ul style="list-style-type: none"> <li>- re-afforestation (planting of trees)</li> <li>- saw dust, wood chippings, stone chippings, off cuts pieces of rejected wood from sawmills(veneer, lumber, etc,)</li> <li>- recycling existing non-bio-degradable synthetic materials like rubber (plastics)</li> <li>- grinding old bricks for frog,</li> <li>- pieces of metals from machine shops, foundry</li> </ul> <p>Found objects to recycle e.g. TV cases, fridge bodies, empty drums and cans, vehicle tyres old leather products, fabrics, etc.</p> <p>Skills and human values in using sculptural materials sustainably: care, patience, etc.</p> <p><b><u>Techniques in re-cycling materials.</u></b></p> <ul style="list-style-type: none"> <li>- various assemblage and construction techniques.</li> <li>- use as decoration for finishing sculptures.</li> </ul>	<p>Guide Students to:</p> <ul style="list-style-type: none"> <li>- discuss the need for the sustainable use of sculpture materials under:</li> <li>- income generation, health</li> <li>- environmental decoration</li> <li>- deforestation, eco system</li> <li>- environmental degradation</li> </ul> <p>In groups, discuss and present how to use and protect sculpture materials sustainably.</p> <p>Brainstorm and analyze the skills and human values in the use of sculptural materials.</p> <p>Discuss and demonstrate various techniques in recycling materials to make sculpture. Guide students to explore and come out with how to</p> <ul style="list-style-type: none"> <li>- recycle materials</li> <li>- use them sustainably</li> <li>- create awareness in the use of sculptural materials sustainably</li> </ul>	<p>Students to:</p> <p>write a short essay on how the sculptor can help keep the environment clean.</p> <p>discuss in writing other means to sustain the use of sculpture materials</p> <p>In writing, state the benefits as in content to the sculptor and the community.</p> <p><b><u>Project</u></b> Students to produce sculptures by recycling materials from their immediate environment</p> <p>Display their works for class discussion and assessment.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 4</b></p> <p><b>TYPES OF TOOLS AND EQUIPMENT</b></p>	<p>The student will be able to:</p> <p>2.4.1 classify tools and equipment according to their types and uses.</p> <p>2.4.2 apply skills in handling of tools to perform tasks efficiently on different materials.</p> <p>2.4.3 assess the need and reasons for designing and making own tools with available materials.</p> <p>2.4.4 design and make simple tools for sculpture.</p>	<p><b>Tools and equipment</b>  <u>Cutting.</u> Chisel, gouges, adze, axe, knife, cutlass, machete. Pneumatic tools, chainsaws  <u>Modelling</u> e.g. Spatula, palette knife, kidney, scraper.  <u>Casting, assemblage and construction</u> e.g. All cutting and modelling tools as well as scissors, pliers, pincers, hammer, mallet, needles, pins, nails, hacksaws, borers</p> <p><u>Handling and using tools</u> e.g.  - chisels, gouges, adze, axe for carving,  - vice, clamps, bench screws for holding  - spatulas for modelling  - rasps and files for Smoothing and finishing</p> <p><u>Need and reasons for making own tools:</u>  Income generation  Self reliance  Creativity  Recycling  Saves time, avoid lack of tool, Personalize tools, etc.</p> <p><u>Make up some simple tools</u>  Spatula, scooping tools, cutting wires, punch, texturing tool, scraper chisels, mallet, knives, brushes, spray diffuser etc.</p>	<p>Guide Students to:</p> <p>name and describe the characteristics of the various tools by using pictorial or physical samples.</p> <p>explore by demonstrating the right way of handling and using tools on different materials.</p> <p>Guide students to discuss the benefit of the proper handling of tools</p> <p>Discuss the need and reasons to design and make own tools with available materials.</p> <p>Design and make simple tools for making sculpture.</p> <p>Experiment and test tools made for efficient performance of tasks.</p>	<p>Students to:</p> <p>Draw and label the parts of 10 tools used in sculptures</p> <p>Write and classify tools as under content.</p> <p>Write 15 benefits in the proper handling of tools to the sculptor and the community.</p> <p>analyze the need for making own tools from available materials in their environment</p> <p>Identify a specific need in terms of simple tools, explore and create tools to satisfy that need.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 5</b></p> <p><b>CARE, MAINTENANCE AND STORAGE</b></p>	<p>The student will be able to:</p> <p>2.5.1 care for and maintain sculptural tools.</p> <p>2.5.2 explain the need for proper care and maintenance of tools.</p> <p>2.5.4 demonstrate skills and human values in the care, maintenance and use of tools safely and responsibly.</p>	<p><u>Care and maintenance of tools</u></p> <ul style="list-style-type: none"> <li>-oil metal parts when not in use</li> <li>-sharpen cutting edges</li> <li>- clean and wax wooden and plastic tools.</li> <li>-keep tools on racks, hooks in boxes pouches and holders.</li> <li>- keep tools in a cool dry place.</li> </ul> <p>- <u>Sharpening tools</u> Sharpening stones, slips stone, grinding stone, oil can, sand paper, files, rasps etc.</p> <p>- Hand and powered tools</p> <p><u>Need for care/maintenance</u> prolong tool life prevents injury ensures working comfort helps produce quality works</p> <p>Skills and human values in the care, maintenance and use of tools safely and responsibly – e.g. Using the right tool for the right job.</p>	<p>Guide Students to:</p> <ul style="list-style-type: none"> <li>- discuss and demonstrate how to care for and maintain sculpture tools</li> </ul> <p><u>NB:</u> Stress that:</p> <ol style="list-style-type: none"> <li>(1) They sharpen their tools using both manual and electrical/mechanical sharpening tools.</li> <li>(2) They need to read and observe directions, precautions and malfunctions in tools and materials.</li> </ol> <p>discuss to bring out the reasons for maintaining and taking proper care of tools.</p> <p>-discuss skills and values required to use tools safely and responsibly.</p>	<p>Students to:</p> <p>Describe 6 ways to care for and maintain sculpture tools</p> <p>Brainstorm to devise ways of caring, maintaining and storing tools and materials.</p> <p>Practice how to use tools/equipment safely and responsibly and to discuss their benefits.</p>

<p><b>UNIT 6</b></p> <p><b>HEALTHY STUDIO PRACTICES</b></p>	<p>2.6.1 describe and apply safety rules in the practice of sculpture.</p>	<p><u>Safety rules and cautions</u>          -wearing of protective gear:          E.g. Gloves, goggles, nose masks, boots, aprons, overall.          Dangers with the following:          Acidic materials - burns          toxic materials - poisoning          inflammable materials- burns          gaseous material-chocking/burns          slippery liquids- falling          corrosive materials- corrosion          sharp and pointed tools- cutting/piercing</p> <p>-maintaining a good posture during working          -washing of hands and face after work, even when gloves are worn          - taking a rest when tired          -drinking enough water during working          -seeking immediate first aid/clinical attention when injured          -ensuring a clean environment during and after work</p>	<p>Discuss the importance of safety rules and precautions to avoid accidents during working in sculpture.</p> <p>Group students to explore, investigate and identify the characteristics of each material and the likely dangers they pose and suggest preventive measures.</p> <p>Demonstrate and explain how protective gears are used.</p> <p>Discuss and demonstrate good health practices in the sculpture studio</p>	<p>analyse guidelines and precautions in the use of tools and materials from product manual, internet, etc</p> <p>Discuss the benefits of preventing accidents in the sculpture studio</p> <p>Analyze the benefits of good health practices to the sculptor and the community</p>
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UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 6 (CONT'D)</b></p> <p><b>HEALTHY STUDIO PRACTICES</b></p>	<p>The student will be able to:</p> <p>2.6.2 maintain personal hygiene and environmental sanitation in the studio</p>	<p>Maintenance of personal and environmental sanitation</p> <p>Hygiene means practices that prevent spread of disease-causing organisms. Since cleaning processes (e.g., hand washing) remove infectious microbes as well as dirt and soil, they are often the means to achieve personal hygiene</p> <p>Sculpture chemicals contain an epoxy ( resin), which may cause sensitivity on skin contact and development of allergy. Irritating to eyes and skin.</p> <ul style="list-style-type: none"> <li>• <b>General Information:</b> Avoid contact of chemicals with skin and eyes. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).</li> <li>• <b>Inhalation:</b> Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Contact physician if discomfort continues.</li> <li>• <b>Ingestion:</b> Rinse mouth thoroughly. <b>DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS!</b></li> </ul>	<p>Guide Students to:</p> <p>-discuss personal hygiene and adopt precautionary measures to prevent and control injuries at the studios.</p> <p>discuss effects of non-conformities to studio lifestyles on the practices of sculpture artist.</p>	<p>Students to:</p> <p>Assess the implication of not observing good health practices on the sculpture artist</p> <p>role-play what could be done in an event of an injury at the studio</p>







# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 3

### DESIGNING AND MAKING OF SCULPTURES I

**General objectives:** The student will:

1. develop skills in preliminary designs based on ideas derived from the environment.
2. acquire skills in designing basic 3-D shapes with the computer.
3. acquire and demonstrate skills in making sculpture through modelling, casting, carving, assemblage and construction.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT1</b>  <b>BASIC DRAWING AND DESIGN</b>	The student will be able to:  3.1.1 use the elements and principles of design to express ideas in their environment.	<u><b>Elements of design</b></u> Dot, line, space, shape, texture, colour, etc. <u><b>Principles of design</b></u> Harmony, unity, rhythm, contrast, opposition, variety, balance, proportion, dominance, etc.	Guide Students to:  Discuss the characteristics of the elements and principles of design.  Recognize and evaluate the element and principle of design in nature  organize the elements according to the principles of design into simple compositions.	Students to:  Explore ways of using either single or multiple elements and principles to compose designs.
<b>UNIT 2</b>  <b>IDEA DEVELOPMENT AND PRELIMINARY DESIGN</b>	3.1.2 draw and compose simple and multiple forms  3.2.1 generate basic ideas from objects in the environment and translate them into 3-D drawings for sculpture.  3.2.2. describe the meaning and importance of preliminary design in sculpture.	<u><b>Drawing and composing forms:</b></u> A plan of work is an arrangement of the elements and principles of design to create beauty and order in the end product.  Generating and translating ideas into 3D sculptural drawings/ forms.  Importance of preliminary design: -serves as a guide -saves time -prevents waste of material -gives an idea of the end product - reduces stress in the production of actual work	Practise drawing of simple and multiple object composition for sculpture.  Practice developing drawings for sculpture from simple objects in the environment showing several stages.  Discuss the importance of preliminary design in sculpture.  Develop ideas from objects picked from the environment.  Compile drawings into portfolio	Produce several preliminary drawings based on ideas derived from objects in their environment.  Submit portfolio of works for class discussion and assessment.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3</b></p> <p><b>COMPUTER AIDED DESIGNS IN SCULPTURE</b></p>	<p>The student will be able to:</p> <p>3.3.1 identify and describe the various computer application programmes used in making 3-D drawing.</p> <p>3.3.2 apply skills in computer application programme in making simple designs or sculpture.</p>	<p>Computer application programmes for 3-D drawing: -Maya, 3-D max, cinema 4-D, macromedia, poser, rhino, real draw, etc,</p> <p>Application of Computer. Programmes for 3-D drawing and designing</p>	<p>Guide Students to:</p> <p>discuss and explore various computer applications and their significance by guiding them.</p> <p>1) demonstrate how the application programs are used</p> <p>2) manipulate the programmes to make simple 3-D drawings</p> <p>3) design basic 3-D shapes on the computer: e.g. Cylinders Pyramids Blocks(square/rectangular Balls (spheres) etc.</p> <p>NB: Invite or consult a resource person for assistance or to learn if necessary.</p>	<p>Students to:</p> <p>Assess application programmes for designing 3-D object.</p> <p>Display their works for class discussion on: - problems encountered and how were solved.</p> <p><b>Project</b> Students in small groups to use the application programmes to make simple sculpture designs.</p> <p>Submit works in a digital portfolio for class discussion and assessment</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 4</b>  <b>MODELLING</b>	<p>The student will be able to:</p> <p>3.4.1 explain the term modelling.</p> <p>3.4.2 identify the various tools and the characteristics of materials for modelling.</p> <p>3.4.3 design and make sculpture by modelling.</p> <p>3.4.4 fire clay works using appropriate tools, equipment and materials.</p>	<p><b><u>Meaning of modelling</u></b>  An additive method of producing sculpture where soft and pliable materials are added bit by bit until a desired form is achieved.</p> <p><b><u>Tools</u></b>  Spatula, (wood, metal, plastic, bone etc)  Modelling boards/stands, tables, turn tables etc.</p> <p><b><u>Materials</u></b>  Clay, wax, Portland cement, white cement, P.O.P, paper, papier maché sawdust, plasticine, polyester,</p> <p><b><u>How to model</u></b>  -idea development  -designing  -building by adding materials bit by bit  -defining shapes  - detailing  - decoration and finishing</p> <p><b><u>Techniques</u></b>  Pinching, slabbing, coiling</p> <p><b><u>Firing</u></b>  Firing (for clay) to make it permanent by:  Open firing  Kiln firing  Sawdust firing.</p>	<p>Guide Students to:</p> <p>discuss and analyze the meaning of modelling and its importance to the sculptor.</p> <p>explore and identify the various tools and the characteristics of materials for modelling.</p> <p>use the knowledge and skills in:  a) idea development from objects in the environment  b) designing,  c) process in modelling  d) decoration and finishing to produce sculpture</p> <p>Let students use simple firing techniques to fire objects made in clay through open and sawdust firing.</p>	<p>Students to:</p> <p>-research and write down other meanings of the term modelling from the library and the internet</p> <p>-analyze how the tools and materials can be used in modelling.</p> <p>-explore alternative ways of producing sculpture by modelling.</p> <p>-experiment to devise techniques for firing clay works and write a report on limitations and strengths.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 5</b>  <b>CASTING</b>	<p>The student will be able to:</p> <p>3.5.1 explain casting and state its importance in the sculptural industry.</p> <p>3.5.2 describe tools, materials and equipment for casting.</p> <p>3.5.3 demonstrate the process of casting.</p> <p>3.5.4 describe types of moulds and required method of casting</p>	<p><b><u>Meaning of casting</u></b>  A process of making sculpture by pouring liquid or semi liquid materials into a mould. This hardens to take the design in the mould</p> <p><b><u>Tools and materials</u></b>  Spatulas, kidney, cutting wire, crucible, brush, bowls etc  Cement , P.O.P, clay, wax, sand, metal, etc</p> <p><b><u>Process of casting</u></b>  Model making  Application of parting agent e.g.  -liquid soap  -clay slip  -oil  Sizing  Pouring (casting)  Chipping-out/Breaking mould  Finishing (grinding, filing and mending, polishing, spraying, painting, pagination, staining etc.</p> <p><b><u>Types of mould</u></b>  - Temporal mould  - Permanent moulds  - Piece/multiple moulds</p> <p><b><u>Types of casting</u></b>  Lost-wax (cire-perdu): this is used in casting metals.  Sand casting  Cold casting</p>	<p>Guide students to:</p> <p>Explain casting and discuss its importance.</p> <p>Identify and discuss tools materials and equipment for casting.</p> <p>Demonstrate process in casting.</p> <p><b><u>Note</u></b>  Stress that casting can be done using cold or hot (molten) materials.</p> <p>Identify and describe types of moulds and types of casting stating why each is used for a particular purpose.</p> <p>Discuss types of casting especially the lost-wax method of casting.</p>	<p>Students to:</p> <p>Explain casting and make a list of tools, materials for casting and the process of casting.</p> <p>Explore the use of other materials for making moulds and describe the result.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 5 (CONT'D)</b></p> <p><b>CASTING</b></p>	<p>The student will be able to:</p> <p>3.5.5 give examples of products made by casting.</p> <p>3.5.6 design and create items in sculpture by casting.</p>	<p><b><u>Items made from casting</u></b>  masks, dolls, door handles, tools, plaques, busts, statues, trophies, gold, weight, medals, mace, crest, bowls, containers, machine parts etc,  <b><u>Note</u></b>  Casting can be done either in relief or in-the-round.</p> <p>Designing and creating sculpture items using casting.</p>	<p>Guide students to:</p> <p>Give examples of items made by casting and analyze their socio-economic importance.</p> <p>Discuss themes, topics and problems with students to design and make simple items by casting.</p> <p>Display items made by casting for class discussion on  a) problems encountered  b) how they were solved</p>	<p>Students to:</p> <p>Compile a list of items made from casting.</p> <p>Identify a need of an individual and use the Design and technology Process (DTP) to design and create an item by casting.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 6</b>  <b>CARVING</b>	<p>The student will be able to:</p> <p>3.6.1 describe the concept and scope of carving.</p> <p>3.6.2 list and group the tools, materials and equipment used in carving.</p> <p>3.6.3 describe various techniques and procedures in carving.</p> <p>3.6.4 design and create simple objects by carving, using appropriate tools and materials and techniques.</p>	<p><b><u>Meaning of art of carving</u></b>  A subtractive process in making sculpture where unwanted part of a piece of solid material is cut bit by bit until a desirable form is achieved.</p> <p><b><u>Tools for carving</u></b>  e.g. Chisels, gouges, adze, axe, cutlass, borers, scrapers, abrasives, mallet, planes, knives, files, rasps, etc.  <b><u>Equipment</u></b>  Tables, vice, clamps, bench-screw  Power tools, vices, clamps, sprayers, sanders, grinders, drills, cutters, scrapers, electric saws, chainsaws, etc.  <b><u>Materials</u></b>  Wood, stone, bones, horns, hooves, soap, wax</p> <p><b><u>Techniques of carving</u></b>  Engraving, whittling, chipping, chiseling, blocking, blasting, etc.  <b><u>Procedure in carving</u></b>  - idea development  - designing  - blocking  - defining shapes  - detailing  - decoration and finishing</p> <p><b><u>Creating simple objects</u></b>  Portraits, statues, furniture, pen-holder, doors, umbrella tops, puppets, picture frame, stools, walking sticks, etc</p>	<p>Let students:</p> <p>Discuss and analyze the concept of carving.</p> <p>Assemble tools, materials and equipment used in carving and group them as under content.</p> <p>Discuss and demonstrate the techniques in carving:  chopping, scrapping, filing, lathe turning, scorching, engraving, pecking ,etc.</p> <p>Guide students to use the knowledge and skills acquired in:  a) idea development from objects in the environment  b) designing,  c) process in carving  d) decoration and finishing to produce sculptural objects</p>	<p>Students to:</p> <p>Explain the term carving.</p> <p>Compile a list of materials, tools and equipment used in carving.</p> <p>Mention and explain the various techniques and procedure in carving.</p> <p>Write down as many items as possible made from carving and analyze:  -the techniques used in making them  -importance of such items to the society.</p> <p>Display works for class discussion on  a) problems encountered and how they were solved</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 7</b></p> <p><b>ASSEMBLAGE AND CONSTRUCTION</b></p>	<p>The student will be able to:</p> <p>3.7.1 explain the terms “assemblage” and “construction”.</p> <p>3.7.2 use tools, materials and equipment to perform various tasks in assemblage and construction effectively and efficiently.</p> <p>3.7.3 analyse the correct processes, procedures in assemblage and construction to create items.</p>	<p><b><u>Meaning of assemblage</u></b> It is a process of putting together found objects with any of the bonding techniques to form a sculpture. In this type of work, the found objects are not altered.</p> <p><b><u>Meaning of Construction</u></b> It is the process of putting together found objects with any of the bonding techniques to form a sculpture. In this type of work, some or all the found objects used are altered using the following tools and materials efficiently.</p> <p><b><u>Tools and materials</u></b> Tools: saw, chisel, pincers, rasps, needles, borers, awls, bodkins, gouges, pliers, Materials: stone, metal, paper, wood, fabric, leather, foam, Styrofoam, plastics, fibre glass, roots, barks, twine, leaves, etc</p> <p><b><u>Processes /procedure in assemblage and construction</u></b> Tying, nailing, welding, gluing, knotting, soldering, sewing, riveting, hammering, joining, pressing, etc.</p>	<p>Guide Student to:</p> <p>In group discussion, brainstorm and analyze the meaning of the terms “assemblage and construction”</p> <p>Assemble – tools materials and equipment and discuss how to use them effectively.</p> <p>Brainstorm and analyze the characteristics of the various processes in assemblage and construction</p>	<p>Students to:</p> <p>Explain the terms a) Assemblage b) Construction</p> <p>make a collection of simple items produced using the assemblage and construction method</p> <p>Make a compilation of tools and material from their immediate environment suitable for producing items in assemblage and construction</p> <p>Compare and contrast the characteristics of the processes</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 7 (CONT'D)</b></p> <p><b>ASSEMBLAGE AND CONSTRUCTION</b></p>	<p>The student will be able to:</p> <p>3.7.4 design and create sculptures of aesthetic, functional and cultural value by construction and assemblage</p>	<p><b><u>Process of Designing and creating of sculpture items</u></b></p> <ul style="list-style-type: none"> <li>• Idea development</li> <li>• Selection of materials</li> <li>• Selection of tools equipment and bonding techniques</li> <li>• Bonding</li> <li>• Detailing and trimming</li> <li>• Decoration and finishing</li> </ul>	<p>Students to design and create items using the various techniques in assemblage and construction as listed under content.</p> <p>Discuss the strengths and weaknesses of a particular technique used, in a class seminar.</p>	<p>Students to:</p> <p>explore and write down other techniques apart from the known ones used in assemblage and construction.</p> <p>assign tasks to groups of students to design and create items based on a need /theme/subject matter using specific processes in assemblage and construction.</p>



# SENIOR HIGH SCHOOL - YEAR 1

## SECTION 4 ENTREPRENEURIAL PRACTICES AND PROFESSIONAL PRACTICES

**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
<p><b>UNIT 1</b></p> <p><b>PORTFOLIO BUILDING</b></p>	<p>The student will be able to:</p> <p>4.1.1 analyse the importance of keeping portfolio of works.</p>	<p><b><u>Artist's Portfolio</u></b> It is a collection of creative works either in hard or soft copies.</p> <p>Examples of Portfolio</p> <ol style="list-style-type: none"> <li>i. Soft copies -Slides, Transparencies, videos, CDs, DVDs, EVDs, VCDs, pen-drives etc.</li> <li>ii. Hard copies real or pictures preserved in Files, Envelopes, Folders, albums etc.</li> </ol> <p><b><u>Importance of keeping portfolio of works</u></b></p> <ul style="list-style-type: none"> <li>• Keeping record of works</li> <li>• Track development of skills</li> <li>• For inspiration</li> <li>• Reveals artist weakness</li> <li>• Develop creative ability as well as quality control</li> <li>• Help artist to be focused</li> <li>• Develop further ideas</li> <li>• Give self esteem and confidence</li> </ul> <p><b><u>Uses</u></b></p> <ul style="list-style-type: none"> <li>• For reference and study</li> <li>• For exhibition of works</li> <li>• For self evaluation</li> </ul>	<p>Guide students to discuss the meaning, importance and types of portfolio, using samples.</p> <ul style="list-style-type: none"> <li>- compare types of portfolio to determine advantages and disadvantages similarities and differences.</li> <li>- discuss and go through a checklist for determining the qualities and requirement for relevant portfolio of works.</li> </ul>	<p>Students to:</p> <p>write a well researched paper on the importance and qualities of relevant portfolio in leatherwork for a school, seminar on entrepreneurial skills.</p>



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 2</b></p> <p><b>ARTIST'S STATEMENT</b></p>	<p>The student will be able to:</p> <p>4.2.1 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> <ol 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> </ol>	<p>Lead students to discuss an artist's statement and its importance in the life of the practicing artist.</p> <p>Let every student</p> <ol 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> </ol>	<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>DEVELOPING A BUSINESS PLAN</b></p>	<p>The student will be able to:</p> <p>4.3.1 prepare a business plan for an art enterprise</p>	<p><u>Business Plan</u> A business plan is a document that indicates what one intends doing, how and when</p> <p><u>Purpose of a Business Plan</u></p> <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> <p><b>Things to Consider in Preparing a Business Plan</b></p> <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> <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> </ol>	<p>Guide the student to brainstorm and</p> <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> <p><b>NB:</b> 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.</p>	<p>Students to:</p> <p>describe how to develop a business plan using concrete examples.</p> <p>develop a business plan for his or her intended art enterprise for consideration by a local</p> <ol style="list-style-type: none"> <li>i. bank</li> <li>ii. financier</li> </ol> <p>non-governmental organization</p> <p>investigate factors which lead to the collapse of enterprises in their locality and report for class discussion</p>
<p><b>UNIT 3</b></p> <p><b>BUSINESS BROCHURE AND A BUSINESS CARD</b></p>	<p>4.3.1 design and make an artist brochure</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>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>design and make an artist's brochure for assessment.</p> <p><b>NB:</b> Let students use the Check List in Appendix B to assess their works.</p>



# SENIOR HIGH SCHOOL - YEAR 2

## SECTION 1

### DESIGNING AND MAKING OF SCULPTURE II

**General objectives:** The student will:

1. develop basic skills in drawing from nature, objects, human and animal forms.
2. acquire the skills to use computer application programmes for 3-D drawing to develop designs for sculpture.
3. understand the principles of modelling, casting and carving.
4. develop the skill of lettering in sculpture.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>DRAWING AND DESIGNING</b>	<p>The student will be able to:</p> <p>1.1.1 draw from nature, human and animal forms.</p> <p>1.1.2 make preliminary designs for functional and aesthetic items in sculpture with ideas from objects in the environment.</p> <p>1.1.3 make design for sculpture with the computer.</p>	<p><b><u>Areas to note in human and animal drawings</u></b>            Anatomy, proportion, Movements, pose            Foreshortening, side view            Three quarters view, etc.</p> <p><b><u>Nature and object</u></b>            Shading Perspective, Composition.</p> <p>Preliminary designs using the environment as a source of ideas generation:            Objects found in the environment such as leaves stones, bones, sticks, fossils, seeds, etc.</p> <p>Translate drawing/sketch into 3-D using the computer</p> <ul style="list-style-type: none"> <li>• Apply colour and texture to designs.</li> <li>• Compose two or more objects into a unit for sculpture.</li> </ul>	<p>Guide Students to:</p> <p>study and draw compositions of objects, human and animal figures, trees, stones, water bodies, etc in their environment (market, school, zoo, kraals, churches, parks, hospitals, etc).</p> <p>Discuss difficulties encountered and suggest possible solutions.</p> <p><b><u>Note</u></b>            keep sketch pads.</p> <p>collect and study objects from their environment and assist them to develop ideas from such objects into designs for sculpture</p> <p>demonstrate how to apply colour and texture to 3-D designs with the use of computer.</p> <p><b><u>Note:</u></b>            Teacher to encourage peer teaching.</p>	<p>Students to:</p> <p>practice the drawing of human, animal, objects and natural forms.</p> <p>Make a scrapbook of clippings from books magazines, newspapers, etc</p> <p>Make drawings in their sketch pads of specific items for sculpture showing the stages of idea development.</p> <p>Group students to make 3-D designs of objects with computer, applying colour and texture.</p> <p>Display their works for class discussion.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2</b> <b>MODELLING</b>	<p>The student will be able to:</p> <p>1.2.1 demonstrate various processes in modelling.</p>	<p><b>Techniques in modelling</b></p> <p><b><u>Pinching</u></b>  Hand method of making sculpture by pressing clay between the thumb and other fingers.</p> <p><b><u>Coiling</u></b>  Method of arranging coils or ropes of clay with the help of clay slip to form sculpture.</p> <p><b><u>Slabbing</u></b>  The use of clay slabs to build objects in sculpture.</p> <p><b><u>Scooping</u></b>  The process of taking out excess clay from a sculpture to reduce weight and to ensure even thickness of the walls.  (This helps to avoid cracking of objects during firing).</p>	<p>Guide Students to:</p> <p>discuss and demonstrate the various processes and techniques in modelling.</p> <p>explore the techniques in modeling by producing simple sculptures using the techniques in modelling</p>	<p>Students to:</p> <p>write short note on the various processes in modelling.</p> <p>analyze the characteristics of various modelling materials to discover their suitability for the individual techniques</p> <p>display works for class discussion and appreciation.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2 (CONT'D)</b> <b>MODELLING</b>	<p>The student will be able to:</p> <p>1.4.2 make sketch models to create items.</p> <p>1.4.3 explain armatures and its importance.</p> <p>1.4.4 design and create items by modelling using the appropriate materials, tools and techniques.</p>	<p><b><u>Sketch model</u></b>  A small representation in 3-D (usually modeled, carved, cast or assembled) of an idea to be executed in sculpture. This is usually in clay, wax, P.O.P., plasticine, soap, etc.</p> <p><b><u>Armature</u></b>  A frame in iron, wood and plastics upon which modelling materials are built in the making of sculpture. This helps to give the work stability. It can be either permanent or temporary.</p> <p><b><u>Materials for constructing armature:</u></b>  Wood, iron, plastic pipes, bamboo canes, ropes, wires, paper, etc.</p> <p><b><u>Techniques</u></b>  Tying, welding, nailing, gluing, etc.</p> <p><b><u>Murals</u></b>  A relief done directly onto a wall. This can be done by using the materials and techniques in modelling. They are used for beautification, awareness creation as well as documentation of important events and issues.</p>	<p>Guide Students to:</p> <p>discuss the relevance of sketch models to the sculptor.</p> <p>choose specific themes and produce sketch models to suit them using various materials and techniques in modelling</p> <p>brainstorm to bring out the importance of armatures in the production of different types of sculpture.</p> <p>construct armature for modelling clay, papier maché, Wax, plasticine, cement, P.O.P.</p> <p>practice the modelling of animal and human figures using different materials</p> <p>discuss the importance of murals in the socio-economic development of Ghana.</p> <p>groups to submit project report for class discussion and assessment.</p>	<p>Students to:</p> <p>Outline the importance of sketch model in the production of sculpture</p> <p>explore by making sketch models suitable for specific materials and techniques</p> <p>display their sketch model for class discussion</p> <p>explain armature and its importance in sculpture</p> <p>explore and construct simple armatures using different materials and techniques..</p> <p>display armatures and models for class discussion on difficulties encountered and suggest possible solution.</p> <p><b><u>Project</u></b>  Group students to produce a ¼ life size modelling in-the-round in clay on an important subject in the environment  <b>or</b>  Design and produce a sizeable mural in cement at a location in the school, e. g.  Dining hall,  Assembly hall,  Art studios,  School entrance, etc.</p>



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3</b></p> <p><b>CASTING</b></p>	<p>The student will be able to:</p> <p>1.3.1 outline the process used by sculptors in mould making and casting.</p> <p>1.3.2 design and prepare mould for casting using appropriate tools and materials.</p> <p>1.3.3 cast objects using variety of materials.</p>	<p><b><u>Process in mould making</u></b> Sculpting: making of the form/object in a pliable material e.g. clay, wax, plasticine, etc.</p> <p><b><u>Note:</u></b> A mould can be made by taking an impression from a natural or live object e.g. insects, stone, tree barks, part of a human being, leaves etc.</p> <p>Designing and preparing mould: - covering the form/object with the mould making material e.g. P.O.P. vinamold, silicon, resin and fibre - removal of mould.</p> <p><b><u>Sizing</u></b> Applying a parting agent e.g. lacquer, grease, oil soap, clay slip, wax, grease onto the inside of the mould (this helps easy separation of the cast object from the mould)</p> <p>Casting objects with a variety of materials:</p> <p><b><u>Materials for making moulds:</u></b> P.O.P., Clay, Charcoal, Sand, Rubber etc.</p> <p><b><u>Materials for casting:</u></b> Cement, P.O.P., Wax, Brass, Lead, Aluminium, Resin, Bronze, copper, etc.</p>	<p>Guide Students to explore the mould making process by producing moulds from natural and man-made objects</p> <p>Students to brainstorm on and discuss the impact of casting from natural objects on the ecology.</p> <p>Explore the use of various materials to make moulds.</p> <p>Experiment with some non-conventional materials suitable for making moulds and use as parting agents.</p> <p>Discuss and demonstrate how to cast using variety of materials.</p> <p>Display cast items for discussion, appreciation and assessment.</p> <p><b><u>Note</u></b> A large piece can be cast in pieces and then assembled to form a whole. It can also be mounted on a wall to form a mural.</p>	<p>Students to:</p> <p>Take a trip to foundries and traditional casting workshops and submit written report on observations made.</p> <p>-materials -Techniques -challenges -solutions -way forward</p> <p>Submit moulds made with non-conventional mould making materials for class discussion.</p> <p><b><u>Project</u></b> Select a suitable theme/pertinent issue in the school environment and produce a sculpture either in relief or in the round by casting to address it.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3 CONTD.</b></p> <p><b>CASTING</b></p>	<p>The student will be able to:</p> <p>1.3.4 analyze the processes involved in casting with a molten material</p>	<p><b><u>Lost wax method (cire perdue)</u></b>  A process of casting sculptures in metal by burning out wax models encased in shells and pouring molten metal to replace them</p> <p><b><u>Procedure/Process:</u></b>  -Model making  -waxwork  -wax chasing  -spruing  -investment(ceramic shell process)  -de-waxing (wax burnout)  -pouring  -devesting(fettling)  -chasing(finishing)  -patination</p>	<p>Guide students to discuss the technology of the lost wax method of casting</p> <p>Analyse the processes of lost wax casting</p>	<p>Students to:</p> <p>Group students to produce simple mould for metal casting</p> <p>Visit a foundry and write a report on their findings</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 4</b></p> <p><b>TRADITIONAL CASTING</b></p>	<p>The student will be able to:</p> <p>1.4.1 describe the tools and materials used in traditional casting.</p> <p>1.4.2 analyse the themes/subjects used in traditional casting.</p> <p>1:4:3 differentiate between traditional and contemporary casting</p>	<p><b>Meaning of Traditional Casting</b></p> <p><b>Materials</b> Brass, bronze and aluminum are the main materials used in casting. Wax, clay, palmtree husk, sand, charcoal, these are used for making moulds</p> <p><b>Tools</b> Wooden and metal spatulas, mallets, hammer, files, rasps, crucible, tongs, etc.</p> <p><b>Themes</b> Social, religious, (magical), health (fertility, therapy), political, educational, recreational, etc</p> <p><b>Note</b> Themes used in traditional casting are mostly expressed in symbolic forms. eg proverbs and historic facts.</p> <p><b>Items produced</b> The gold weight used to measure gold, ornaments and jewellery, bowls and containers (abusua kuruwa) for storing gold dust and jewellers, aluminum bowls and pans are also produced.</p> <p><b>Finishing</b> most works are polished smooth with aluminum wool</p> <p>comparing traditional and contemporary casting.</p>	<p>Guide students to:</p> <p>Discuss the tools and materials used in traditional casting.</p> <p>analyse themes/subjects and assign possible reason for the choice of themes.</p> <p>Analyse the various ways in which items produced by traditional casting are used.</p> <p>In a discussion compare and contrast the traditional and contemporary casting.</p>	<p>Students to:</p> <p>Take a trip to the various traditional casting centres and submit written report on observations of:</p> <ul style="list-style-type: none"> <li>• materials and tools</li> <li>• techniques in making moulds for casting,</li> <li>• themes/subjects</li> <li>• products</li> </ul> <p>Display works for discussion, appreciation and assessment</p> <p>Write a comparative essay on the differences and similarities between traditional and contemporary casting.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>TRADITIONAL CASTING (CONT'D)</b>           <b>UNIT 5 CARVING</b>	The student will be able to:  1.4.4 design and create sculptural items of cultural significance using contemporary or tools, materials, themes and techniques	Creating sculptural items using traditional and contemporary casting methods.	Organise students to demonstrate and discuss traditional and contemporary, themes, techniques tools and materials of designing and creating items by casting.  Display works for appreciation and criticism using criteria	Students to:  <b>PROJECT</b> Group students to design and cast decorative and functional sculpture using contemporary themes and methods
	1.5.1 demonstrate the use of appropriate tools and materials for each process in carving.	<u><b>Tools and their uses</b></u> <u><b>Marking</b></u> Chalk, charcoal, pencils, felt pens, crayons etc. <u><b>Blocking</b></u> adze, axe, cutlass, machete, chainsaw, grinding machines. <u><b>Defining shapes</b></u> Gouges, chisels, drills, knives, rasps, spokeshave Plane etc. <u><b>Finishing</b></u> Scrapper, rasp, files, sand paper, broken bottles, brushes, etc.	Students to practise the use of appropriate tools and materials in the processes involved in carving.  Guide Students to explore and devise materials, tools and techniques for carving,	Take an educational trip to studios of some contemporary carvers.  Submit a written report on observation made during the trip on: - tools, materials and equipment - techniques - themes/styles - designs - products
	1.5.2 design and create objects in sculpture by carving.	Steps in designing and creating sculpture items using carving <ul style="list-style-type: none"> <li>• Idea development</li> <li>• Selection of tools and materials</li> <li>• Marking to indicate forms</li> <li>• Blocking out forms</li> <li>• Defining shapes</li> <li>• Finishing and decoration</li> </ul>	Students to select a theme from the environment and produce a suitable carving to suit it.  <u><b>Note</b></u> Relief carving can be done on a large scale and mounted on a wall to form a mural. This can also be done in pieces and assembled or done in one piece.	Explore the effect of the various textures of materials e.g. Softwood, hardwood, foam, Styrofoam, bamboo, tuber, etc, on carving.  Display their finished works for class discussion, appreciation and assessment.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 6</b></p> <p><b>TRADITIONAL CARVING</b></p>	<p>The student will be able to:</p> <p>1.6.1 describe, tools and materials used in traditional carving.</p> <p>1.6.2 analyse the themes/subject matter used in traditional carving.</p> <p>1.6.3 design and create sculpture of cultural significance using contemporary tools, materials, themes and techniques.</p> <p>1:6:4 differentiate between traditional and contemporary carving.</p>	<p>Meaning of Traditional Carving</p> <p><b>Materials tools and process</b> Soft wood: e.g. sese, funtum, nyamedua, etc. Hardwood: ebony, odum, sapele, mansonia, odanta, etc. Bones, horns, bamboo, etc.</p> <p><b>Tools</b> Axe, adze, chisels, gouges, cutlass, machete, knives, drills, scrappers, borers, files, rasps, etc.</p> <p><b>Themes in traditional carving</b> Social, religious,(magical), health(fertility, therapy), political, educational, recreational, royalty</p> <p><b>Items produced</b> Stools, umbrella tops, linguist staffs, scepter, thrones, walking sticks, drums, door panels, ladles, spoons, bowls, trays, dolls, statues, etc.</p> <p><b>Designing and creating items</b> Selection of materials/tools Blocking, defining shapes, detailing, finishing</p> <p><b>Finishing</b> Works are polished smooth -stained dark red, brown or black. -embellished with beads, cowries, shells, leather, raffia, fabrics, etc.</p> <p>Difference and similarities between traditional and contemporary carving.</p>	<p>Guide students to discuss and describe tools, themes and materials used in traditional carving.</p> <p>Student to brainstorm and discuss on the meaning of the themes/subject matter and choice of materials in traditional carving.</p> <p><b>Note</b> Themes used in traditional carving are mostly expressed in symbolic forms.</p> <p>Guide Students to discuss the importance of the themes in traditional carving to both the indigenous and contemporary society.</p> <p>Compare and synthesize characteristics of the traditional and contemporary wood carving.</p>	<p>Students to:</p> <p>take a trip to the various traditional carving centres and submit written report on observations during the visit.</p> <p>name the tools</p> <p>Compare and contrast themes and their presentation in the traditional and contemporary carving.</p> <p><b>Project</b> Design and carve a decorative or a functional sculpture to solve a social need using a traditional theme and finishing but contemporary materials and tools.</p> <p>Write a short essay on the differences and similarities between traditional and contemporary carving.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 7</b> <b>ASSEMBLAGE AND CONSTRUCTION</b>	<p>The student will be able to:</p> <p>1.7.1 analyse the differences and similarities in various materials and show the appropriate bonding techniques.</p> <p>1.7.2 organise discarded /found object in the environment to create sculpture.</p> <p>1.7.3 make installations with materials from the environment.</p>	<p>Analysis of materials and appropriate bonding techniques.</p> <p><b><u>Bonding techniques</u></b>  e.g. <b><u>Riveting:</u></b> metal, wood leather,  <b><u>Gluing</u></b>  Leather, fabrics, papers, wood leaves, etc.  <b><u>Nailing and Pinning</u></b>  Wood, metals, leather, fabrics  <b><u>Tying:</u></b> For most materials  <b><u>Soldering</u></b>  For softer non-ferrous metals e.g. lead, copper, aluminium, tin, etc.  <b><u>Welding</u></b>  For harder ferrous metals, e.g., iron, steel, bronze, aluminum, etc.</p> <p><b><u>Using discarded items to create sculpture</u></b>  Metal cans, plastic containers and bags, old shoes, computer shells, etc.</p> <p><b><u>Making installations with materials from the environment: Meaning of "Installation"</u></b>  Assemblage of items/objects from the environment on a small/large scale in the environment with the intention of creating awareness to the problems in the society.  <b><u>Note:</u></b>  Any material found in the environment can be used for "installation" e.g.  Metals, wood, straw, stones, bones, leaves, fabrics, raffia, leather, canes, ropes, wires, paper, plastics, etc.</p>	<p>Guide Students to:</p> <p>Compare and discuss the differences and similarities in various materials.</p> <p>Create objects using single materials but multiple bonding techniques.</p> <p>Create objects from multiple materials using the various techniques.</p> <p>Produce aesthetic and functional object specifically from discarded items.</p> <p>Take trip to abattoirs, mechanics shops, saw mills, Dressmaking workshop, electronic repair shop and use items collected from their trip to make decorative/functional sculptures.</p> <p>assess the impact of assemblage and construction on the environment.</p> <p>organise a seminar by the various groups in class on the choice of problems and the techniques used to create awareness.</p> <p><b><u>Techniques</u></b>  All the techniques employed in the making of assemblage and construction can be used.</p>	<p>Students to:</p> <p>Collect pictures of sculptures made using assemblage and construction from magazines, journals, photograph, books, etc.</p> <p>Submit works and a project for class discussion</p> <p>Explore and make their sculptures mobile by using either motorized or mechanical means or by wind</p> <p>Present works for assessment and class discussion.</p> <p><b><u>. Project</u></b>  Form groups to mount an Installation to create awareness to the school environment on subjects such as</p> <ul style="list-style-type: none"> <li>- environmental degradation</li> <li>erosion,</li> <li>- water pollution</li> <li>- overgrazing, bushfires etc)</li> <li>- disposal of waste</li> <li>- noise pollution</li> <li>- diseases, etc</li> </ul>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 8</b></p> <p><b>LETTERING IN SCULPTURE</b></p>	<p>The student will be able to:</p> <p>1.8.1 describe the types of lettering as well as materials, tools and techniques used to create sculpture with lettering.</p> <p>1.8.2 explore and create new styles of lettering either manually or with computer for Sculpture.</p> <p>1.8.2 apply lettering in acting items in Sculpture.</p>	<p><b><u>Types of Lettering</u></b>            Traditional Lettering:            Block, Roman and Gothic.            - Free style (innovation)</p> <p><b><u>Materials</u></b>            Clay, Wood, P.O.P, Metal, Plastic, Stone, Rubber, leather</p> <p><b><u>Tools</u></b>            Chisels, gouges, lino cutters, mallets, knives, spatula, scooping tool, hammer, etc</p> <p><b><u>Techniques</u></b>            - carving            - modelling            - incising            - etching            - stamping            - embossing            - forging            - stencilling</p> <p><b><u>New styles of lettering</u></b>            - Free hands            - Free style            - Computer</p> <p><b><u>Use of Computer for Lettering</u></b>            The use of existing fonts in:            Corel Draw            Photoshop            Word,            Excel            Power Point            Page-maker            Publisher, etc.</p> <p><b><u>Application of Lettering</u></b>            Use of lettering in:  <ul style="list-style-type: none"> <li>• Plaques</li> <li>• Memorials, tombstones</li> <li>• Ornamental inscriptions</li> <li>• Epitaphs</li> <li>• Medals, shields, labels.</li> </ul> </p>	<p>Guide students to discuss tools, materials and techniques used in creating items in sculpture with lettering.</p> <p>Guide Students to demonstrate the appropriate way of using tools , materials and techniques to create items in sculpture.</p> <p>students to discuss explore and develop new styles of lettering and use them in sculpture using:            Free hand,            Freestyle,            Computer.</p> <p>Students to discuss design and create a functional item using lettering. e.g. clocks, door indicators, labels, plaques, memorials, epitaphs, shields, medalions, etc.</p>	<p>Students to:</p> <p>Make a scrap book of pictures of sculptures produced using the various techniques in lettering from magazines, journals photographs and books.</p> <p>explain the importance of lettering in sculpture.</p> <p>Explore ways of designing 3-D letters with the computer.</p> <p>Display works for appreciation and assessment.</p>

# SENIOR HIGH SCHOOL - YEAR 2

## SECTION 2

### DECORATION AND FINISHING

**General objectives:** The student will be able to:

1. understand the socio-economic importance of decoration and finishing.
2. beware of the appropriate materials, tools and equipment for decorating and finishing.
3. recognize the need for quality control and its socio-economic values.
4. appreciate the techniques and socio-economic importance of packaging and handling.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>DECORATION AND FINISHING</b>	The student will be able to:  2.1.1 analyse the socio-economic importance of decoration and finishing.  2.1.2 use materials, tools and techniques for decoration and finishing in sculpture.	<p><b><u>Socio-economic importance of decoration and finishing</u></b></p> <ul style="list-style-type: none"> <li>- high income generation</li> <li>- generation of foreign exchange</li> <li>- boost export</li> <li>- tourism</li> <li>- aesthetics</li> </ul> <p><b><u>Tools for decoration and finishing</u></b></p> chisels, punch, gouges, knives, pins, nails, scrapers, brushes, sprayers, pincers, scissors, pliers, files, rasps abrasive papers etc.	<p>Engage students in a brainstorming and discuss session to analyze the socio-economic importance of decoration and finishing.</p> <p>Guide students to demonstrate how to use the various tools and techniques in decoration and finishing.</p> <p>Guide students to explore experiment and practise how to use the appropriate tools, materials and techniques to decorate and finish sculpture.</p> <p>Display works for discussion and assessment.</p>	<p>Students to:</p> <p>analyse in writing the socio-economic importance of decoration and finishing.</p> <p>List and describe:</p> <ul style="list-style-type: none"> <li>- materials</li> <li>- tools</li> <li>- techniques in decoration and finishing.</li> </ul> <p>-Explore and use tools and techniques to decorate and finish all items.</p>





UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2</b>  <b>QUALITY CONTROL</b>	<p>The student will be able to:</p> <p>2.2.1 analyse the socio-economic importance of high quality sculptures.</p> <p>2.2.2 devise ways of correcting defects in sculptures.</p> <p>2.2.3 control quality of works by applying ethical skills, human and moral values.</p>	<p><b><u>Socio-economic importance of high quality sculpture</u></b></p> <ul style="list-style-type: none"> <li>• Income generation</li> <li>• Tourism promotion</li> <li>• Foreign exchange</li> <li>• High recognition of sculpture</li> <li>• Promotion of art appreciation</li> <li>• Promotion of good health</li> </ul> <p>Identification of Defects in sculpture:</p> <ul style="list-style-type: none"> <li>• Uneven/irregular surface textures.</li> <li>• Disproportionate figures.</li> <li>• Cracks/dents on work.</li> <li>• Unstable/not balanced.</li> <li>• Smearing.</li> <li>• Messy.</li> <li>•</li> </ul> <p><b><u>Quality Control in Sculpture</u></b></p> <ul style="list-style-type: none"> <li>• use of quality materials</li> <li>• appropriate subjects</li> <li>• avoidance of indecent themes</li> </ul> <div style="border-left: 1px solid black; border-right: 1px solid black; padding: 2px; display: inline-block;">       vulgarity        pornography        derogatory        insinuating     </div> <ul style="list-style-type: none"> <li>• Good quality finishing,</li> <li>• Environmental friendly materials,</li> <li>• Maintenance of clean environment.</li> </ul> <p>Ethics, mural and human thy, love values, honesty, truthfulness, empathy.        Designing from cheating and over pricing. Etc.</p>	<p>Guide Students to:</p> <p>analyze the socio-economic importance of high quality sculptures.</p> <p>explain and discuss some sculptures, bringing out the defects that make the work sub-standard and suggest how these defects can be corrected</p> <p>discuss and determine the importance of ethics, moral and human values to the sculpture industry.</p> <p>examine and analyze some sculptures bringing out views whether they are ethically and morally acceptable or not.</p>	<p>Students to:</p> <p>Analyse the need to produce high quality sculptures.</p> <p>describe some specific defects in sculptures they have analyzed and suggest possible ways to correct them.</p> <p>Analyze and write the morals and values significance of the ethics in quality control.</p> <p>Explore other themes and describe their relevance to the socio economic development of Ghana</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3</b></p> <p><b>PACKAGING AND HANDLING</b></p>	<p>The student will be able to:</p> <p>2.3.1 describe types of Packaging and Handling.</p> <p>2.3.2 outline the importance of Packaging and Handling.</p> <p>2.3.3 describe tools, materials and techniques for Packaging and Handling.</p>	<p><b>Types of Packaging:</b></p> <p>i. Primary Packaging (packaging single individual items).</p> <p>ii. Secondary Packaging (packaging a number of items that have individually been packaged into a large container)</p> <p><b><u>Importance of Packaging and Handling</u></b></p> <ul style="list-style-type: none"> <li>- Prevents (shocks, impacts damp condition)</li> <li>- Facilitate easy and safe handling</li> <li>- Adds value to items</li> <li>- For identification</li> <li>- Prevents injury</li> </ul> <p><b><u>Packaging Tools, Materials and Techniques</u></b></p> <p>Knives, hammer, needle, saw pliers, drills, staplers, scissors, etc.</p> <p><b>Materials</b></p> <p>Plywood, plastic bags, fabrics, paper glue, cardboard foam, sawdust, straw, wood shaving, silk cotton, Styrofoam adhesive tape, twine, metal stripes, cello tape.</p> <p><b>Techniques</b></p> <p>Boring, wrapping, nailing, gluing, tying, boxing, stapling, wrapping.</p>	<p>Teacher to explain and demonstrate some simple ways of packaging sculpture in wood, stone, metal, horns Wax, raisin, fiberglass.</p> <p>Brainstorm and discuss to bring out the importance of packaging and handling as indicated in content.</p> <p>Students to identify the tools and materials and discuss the techniques for packaging of sculpture work.</p>	<p>Students to:</p> <p>Assemble, examine and describe different types and sizes of packaging for sculpture</p> <p>outline the significance of packaging and handling to the development of the sculpture industry in Ghana in an article or newspaper.</p> <p>list and describe tools and materials used for packaging.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>PACKAGING AND HANDLING (CONT'D)</b></p> <p><b>UNIT 4</b></p> <p><b>PERCEPTION AND AESTHETICS</b></p>	<p>The student will be able to:</p> <p>2.3.4 devise method to package a sculptural item through exploration</p> <p>3.5.1 examine the role of human senses in art activity such as drawing etc.</p> <p>3.5.2 explain and apply concepts of aesthetics to art</p>	<p><b>Devising packaging Methods</b> -exploring experimenting with tools, materials and techniques to devise own method.</p> <p><b>Perception</b> It is a way of experiencing the world around us. It is an important activity during the creative process, e.g. perceiving with the eyes, ears, tongue, skin and nose.</p> <p><b>Aesthetics</b> Aesthetics is a branch of science that deals with beauty. It is the philosophy and study of the nature of beauty and arts.</p> <p>There are three types of aesthetic theories:</p> <p>i. <u>Imitation and Liberal Qualities</u>: It focuses on realist presentation of the subject matter or an imitation of life or what one sees in real world</p>	<p>Guide Students to:</p> <p>Discuss and demonstrate how to explore, experiment with packaging materials, tools and techniques</p> <p>Students to practice packaging sculptures in relief and in-the-round in hard dense materials e.g. wood, stone, metal or a fragile material e.g. terracotta.</p> <p>Submit packaged items for class discussion.</p> <p>Students to:</p> <ol style="list-style-type: none"> <li>discuss the sense organs connected with perception.</li> <li>discuss the sense of sight, hearing, taste, smell and kinaesthetics (Movement of the muscles).</li> <li>Students to find out the roles of the various sense organs e.g. skin, eye, in drawing by feeling, touching, observing etc. for true characteristics of objects.</li> </ol> <p>Lead students to discuss the aesthetic theories and qualities in a work of art by looking at the composition, design, technical qualities, the use of media, finishing and utilitarian qualities, usefulness and relevance to life.</p>	<p>Students to:</p> <p>Explore to devise methods and materials to package simple items.</p> <p>discuss the relevance of perception in Art and the need for creativity in Art</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 4 (CONT'D)</b>  <b>PERCEPTION AND AESTHETICS</b>	The student will be able to:	<ul style="list-style-type: none"> <li>ii. <u>Formalism and Design Qualities</u>: It emphasizes the design qualities; focusing on the arrangement of the elements using principles of design or composition.</li> <li>iii. <u>Emotionalism And Expressive Experience</u>: 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.</li> </ul>	<p><b>NOTE:</b> One or more of the aesthetic theories can be used to judge an artwork depending on the type and purpose. If one limits oneself to only one of the theories to appreciate and criticize an artwork, some unique or interesting aspects may not be discovered. Using the three is the best approach.</p> <p>Students to write an essay on 'The Role of Aesthetics, in enhancing ones life'.</p>	Students to:  submit exercise for marking and grading.

# SENIOR HIGH SCHOOL - YEAR 2

## SECTION 3

### EXHIBITION

**General objectives:** The student will:

1. appreciate the importance of exhibition.
2. acquire skills in the planning, organizing and mounting of exhibition.
3. develop the attitude of appreciating, understanding and valuing their work and those of others for self improvement.
4. acquire the skills to compile and keep portfolio of their art works.
5. acquire knowledge in the trend of contemporary sculpture

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>EXHIBITION</b>	The student will be able to:  3.1.1 explain the term 'exhibition' and identify types and purpose of exhibitions.	Meaning of exhibition. Exhibition is a public or private display of products such as manufactured goods, food, sculpture items and other artefacts in order to attract viewers, buyers, art lovers, connoisseurs and critics, etc.  <b>Importance of exhibition:</b> <ul style="list-style-type: none"> <li>• It offers avenue for sale of products.</li> <li>• Serves as an advertisement for products.</li> <li>• Exposes new technology to the society.</li> </ul> <b>Types of exhibitions:</b> General and Specialised: i) General: Attracts all kinds of exhibits and could also be called bazaar or fair.  ii) Specialised: Attracts specific products and accessories, tools/equipment and materials e.g. (Art exhibition, etc.)	Guide students:  Discuss the purpose for holding exhibitions and describe the different types of exhibitions.	Students to:  Research and write about the importance of exhibitions.  Students to visit exhibitions of local prominent artists and present a report on their trip.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 1 (CONT'D)</b></p> <p><b>EXHIBITION</b></p>	<p>The student will be able to:</p> <p>3.1.2 plan an exhibition.</p>	<p><b><u>Planning an exhibition: Consider:</u></b></p> <ul style="list-style-type: none"> <li>• Type of exhibition</li> <li>• What to exhibit</li> <li>• Where to exhibit (location): exhibition could be held at school, district, regional and national levels</li> <li>• Cost involved</li> <li>• Publicity (advertisement, poster, banner, etc.)</li> <li>• Expected number of guests/visitors</li> <li>• Duration/time e.g. opening and closing</li> <li>• Mounting of exhibits (fixing on a support or frame)</li> <li>• General layout or space arrangement</li> <li>• Security</li> <li>• Visitors book</li> <li>• Sales list</li> </ul>	<p>Guide Students to:</p> <p>Discuss the stages involved in the planning and preparation of an exhibition.</p> <p>In small groups, students plan for a school exhibition. Specific tasks should be assigned to each group. Each group selects a leader. The class should then nominate a co-coordinator for the entire exhibition.</p>	<p>Students to:</p> <p>Assess their exhibition by taking into consideration the:</p> <p>a) arrangement of products.</p> <p>b) space between exhibits.</p> <p>c) labelling of products.</p> <p>d) safety measures</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 1 (CONT'D)</b></p> <p><b>EXHIBITION</b></p>	<p>The student will be able to:</p> <p>3.1.3 mount and evaluate an exhibition.</p>	<p><b>Mounting exhibits: Consider:</b></p> <ul style="list-style-type: none"> <li>• Colour scheme and balance</li> <li>• Size, weight, height of exhibits and whether 2 or 3 dimensional</li> <li>• Ensure effective lighting and ventilation of room</li> <li>• Create free movement for viewing exhibits.</li> <li>• Decorate room using flowers, ribbons, etc.</li> <li>• Create centre of attraction e.g. modelling/video show. (This should not be too elaborate to compete with the exhibition and distract the attention of visitors).</li> <li>• Invitations</li> <li>• Advertisements</li> <li>• Press release</li> <li>• Brochures/catalogues</li> <li>• Sales list</li> </ul>	<p>Guide students to:</p> <p>Discuss how to mount an exhibition and let them organise a class exhibition of sculptural items.</p> <p>Students to consider the type of things that should be placed on stands/pedestals, etc, and those that should be hung on walls or stands, etc.</p> <ul style="list-style-type: none"> <li>- provide background music, etc.</li> <li>- discuss the various issues to consider in mounting/displaying exhibits.</li> </ul> <p><b>Note</b></p> <p>Depending on size height and weight of object, and whether the object is 2 or 3 dimensional, the object may be:</p> <ul style="list-style-type: none"> <li>- placed on a stand/pedestal</li> <li>- hung at appropriate level on boards, walls, doors or windows, etc.</li> </ul>	<p>Students to:</p> <p>write down the things to consider when planning and mounting an exhibition.</p> <p>devise ways of mounting exhibition</p>



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 2</b></p> <p><b>APPRECIATION AND CRITICISM</b></p>	<p>The student will be able to:</p> <p>3.2.1 explain the concept of appreciation in art</p> <p>3.2.2 describe the logical sequence in Art appreciation</p>	<p><b>Concept of appreciation.</b> A means of responding to works of art, i.e.</p> <ul style="list-style-type: none"> <li>• talking intelligently about a work of art.</li> <li>• communicating knowledgeably about a work of art.</li> </ul> <p><b>Art Appreciation.</b> <u>Logical sequence of art appreciation</u></p> <ol style="list-style-type: none"> <li>i. Identification of the work (title, artist, date, size, medium, location).</li> <li>ii. Inventory of items in the work (description of physical characteristics of items).</li> <li>iii. Technical qualities (kinds of materials, tools, design/composition and styles).</li> <li>iv. Interpretation (meaning of work).</li> </ol> <p><b>NB:</b> Refer to the preamble for detailed information.</p>	<p>Discuss the concept of appreciation as:</p> <ul style="list-style-type: none"> <li>• knowledgeable talk about qualities and meaning of work of art.</li> </ul> <p><b>NB:</b></p> <ol style="list-style-type: none"> <li>i. Encourage students to contribute meaningfully to the discussion.</li> <li>ii. Conduct practical appreciation in demonstration lesson.</li> <li>iii. Arrange visits to galleries dealers, curios, shops and cultural centers for observation, interview and fact finding on appreciation.</li> </ol> <p>Discuss the logical sequence of appreciating Art. Guide students to write an appreciation of their own works and the works of known Artist.</p>	<p>Students to:</p> <p>write reports and essays after demonstrations and visits expressing their understanding and views about appreciation.</p> <p>display some sculpture works for oral appreciation following the logical sequence.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 2 (CONT'D)</b></p> <p><b>APPRECIATION AND CRITICISM</b></p>	<p>The student will be able to:</p> <p>3.2.3 use the appropriate terms in appreciating and evaluating sculptures.</p> <p>3.2.5 judge a sculpture piece using criteria and theories in aesthetics.</p>	<p>Terms in appreciating 3-D objects (sculptures)</p> <ul style="list-style-type: none"> <li>• content</li> <li>• form</li> <li>• subject matter</li> <li>• symbolism</li> <li>• materials and techniques</li> </ul> <p>artist and style</p> <p><b>Interpretation</b> socio-cultural meaning of the main idea being expressed by the work.</p> <p>Criticism and judgement in art. Development of critical thinking and judgement</p> <p>This is a process of judging a work of art to bring out how it has been successfully rendered based on the accepted standard of aesthetics criteria and values</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>Guide Students to outline and discuss the processes of expressing and evaluating sculpture.</p> <p>Teacher to guide class in a discussion of the terms used in appreciation of 3-D works stating their importance to the artist.</p> <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. NB: use the Check List in Appendix B</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 4</b></p> <p><b>HISTORY OF CONTEMPORARY SCULPTURE</b></p>	<p>The student will be able to:</p> <p>3.4.1 trace the trends in the development of contemporary sculpture</p> <p>3.4.2. analyse and derive ideas from the characteristics of the various movements and sculptors of this period.</p>	<p><b>Trends in Contemporary Sculpture</b> Contemporary sculpture in this context refers to the sculptures done in the modern and post-modern era of art especially from the beginning of the twentieth century to recent times.</p> <p><b>Movements and sculptors in contemporary sculpture.</b></p> <p><b>Movements:</b></p> <ul style="list-style-type: none"> <li>• Dadaism</li> <li>• Surrealism</li> <li>• Futurism</li> <li>• Minimalism</li> <li>• Cubism</li> <li>• Abstract expressionism</li> <li>• Conceptualism</li> <li>• Performance art and happenings</li> <li>• Expressionism, etc.</li> </ul> <p><b>Sculptors</b></p> <ul style="list-style-type: none"> <li>• Robert Rauschenberg</li> <li>• Pablo Picasso,</li> <li>• Edgar Degas</li> <li>• Ferdinand de Szyszlo,</li> <li>• Joseph Wu</li> <li>• August Fells Savage,</li> <li>• Noguchi Isamu</li> <li>• Umberto Boccioni,</li> <li>• Naum Gabo</li> <li>• Alex Calder,</li> <li>• Oku Ampofo</li> <li>• Dominic Benhura</li> </ul>	<p>Guide Students to:</p> <p>Discuss, trace and explain the meaning and scope of contemporary sculpture</p> <p>Discuss the similarities and differences in the movements.</p> <p>discuss the background of the sculptors</p>	<p>Students to:</p> <p>Identify and analyze the characteristics of the various movement in contemporary</p> <p>devise ideas and outline the sources of inspiration of sculptors in contemporary sculpture</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 4 (CONT'D)</b></p> <p><b>HISTORY OF CONTEMPORARY SCULPTURE</b></p>	<p>The student will be able to:</p> <p>3.4.3 determine the materials and concepts used in contemporary sculpture</p> <p>3.4.4 determine the similarities and differences in ancient and contemporary sculpture.</p>	<ul style="list-style-type: none"> <li>• Kofi Sertodji</li> <li>• El-Anatsui</li> <li>• Kwame opoku-Bonsu</li> <li>• Nii Owoo</li> <li>• Chidi</li> <li>• Vincent Kofi,</li> <li>• Saka Acquye etc.</li> </ul> <p>Materials used in contemporary sculpture.</p> <p>Concepts used in contemporary sculpture.</p>	<p>Guide Students to:</p> <p>Brainstorm and discuss to identify the various materials and concepts used by contemporary sculptors to investigate to determine the materials and concepts used and its impact on society.</p> <p>Compare and determine the similarities and differences in the Ancient and Contemporary sculptures in terms of</p> <ul style="list-style-type: none"> <li>-Materials, tools and equipment</li> <li>-Style and themes</li> <li>-uses</li> </ul>	<p>Students to:</p> <p>State the reasons for the choice of such materials and concepts</p> <p>determine the impact of the works of contemporary sculptors on the development of the society.</p> <p><b>Project:</b> Produce a sculpture to address a social problem using a theme from the Ancient sculpture and material and technique from contemporary sculpture.</p>

# SENIOR HIGH SCHOOL - YEAR 3

## SECTION 1

### ADVANCED PRODUCT DESIGN AND TECHNIQUES

**General objectives:** The student will:

1. develop the competencies to design and create sculpture to meet social needs.
2. acquire skills to develop the capability to use the computer to make simple and complex designs.

UNIT	SPECIFIC OBJECTS	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>PRODUCT DESIGN</b>	The student will be able to:  1.1.1 develop ideas from objects in the environment to solve specific problems using a combination of human and animal forms.  1.1.2 design and make functional and aesthetic items with any of the sculpture techniques.  1.1.3 use the computer to design compose multiple objects into a unit for sculpture applying colour and texture.  1.1.4 make design with the computer to show the different views in their drawing.	<p><b><u>Developing ideas</u></b>                      Develop designs from basic organic and inorganic materials to meet the needs of the society e.g. social, religion, education politics, health, etc.</p> <p>Designing and making functional and aesthetic items such as fountain, lamp holders, door panels, walking sticks, clocks, shields</p> <p>Using computer to design multiple objects.</p> <p><b><u>Different views</u></b>                      Front, side, back, top, etc.</p>	<p>Guide students to:</p> <p>make multiple compositions of human forms and object in the environment using various drawing techniques to be:</p> <ul style="list-style-type: none"> <li>- modelled</li> <li>- carved</li> <li>- cast</li> <li>- assembled/constructed .</li> </ul> <p>Display drawings for class discussion and assessment.</p> <p><b><u>Project</u></b>                      using the computer , design a multiple object composition on a specific theme in the society suitable for a relief sculpture applying colour and texture  <b>or</b>                      design a monument in honour of the heroes in your society showing all the different views.  <b><u>Note:</u></b>                      exhibit their products.</p>	<p>Students to:</p> <p>Explain why the composition is suitable for the techniques chosen.</p> <p><b><u>Project</u></b>                      Design and make sculpture items of social, cultural, aesthetic and functional value using one or more techniques, materials and tools. (show the stages from designing through the sketch model to the actual work)</p> <p>Display works for class discussion, appreciation and assessment.</p>

# SENIOR HIGH SCHOOL - YEAR 3

## SECTION 2

### ENTREPRENEURSHIP

**General objectives:** The student will:

1. develop the capability of managing sculpture enterprises.
2. identify the need to moral principles in the conduct of a business.
4. appreciate the need to establish an ideal studio.

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 1</b>  <b>MANAGING A SCULPTURE ENTERPRISE</b>	The student will be able to:  2.1.1 explain the concept of Management in the sculpture enterprise.          2.1.2 describe the functions of the Manager.	<p><b>Management:</b> Is the process of ensuring the efficient execution of all activities of an enterprise through working with people. The manager is the one who controls the operation of the enterprise.</p> <p>Functions of the manager. Management process involves:</p> <p><b>Planning</b> Determining the market niche to find out if the product will sell, location of workshop, labour, types of products, capital required, etc.</p> <p><b>Organising</b> Putting together the capital, labour and other resources to start the business, setting up the business structure and the authority structure i.e. who to report to whom, etc.</p> <p><b>Controlling</b> Controlling means, measuring performance against the standards of the enterprise. It involves setting standards, checking production on daily, weekly and monthly basis to ensure the business is reaching its targets; monitoring expenses.</p>	<p>Guide Students to:</p> <p>Brainstorm to bring out the meaning of the concept of management.</p> <p>Discuss the functions of a manager and the additional skills needed for managing an enterprise successfully. e.g.</p> <p><b>Additional skills:</b></p> <ul style="list-style-type: none"> <li>- Include budgeting, bookkeeping and computer skills.</li> </ul> <p><b>Values:</b></p> <ul style="list-style-type: none"> <li>- Perseverance, commitment, temperament, courage to take risk, etc.</li> </ul> <p>Discuss how a sculpture business should be managed following the management steps outlined under content.</p>	<p>Students to:</p> <p>Write a short essay on the importance of establishing and managing a small scale sculpture enterprise.</p> <p>Analyze how a successful or bankrupt entrepreneur manages his/her shop.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 2</b>  <b>MARKETING</b>	<p>The student will be able to:</p> <p>2.2.1 explain the concept of marketing.</p> <p>2.2.2 describe the basic strategies for efficient marketing.</p>	<p>Concept of marketing or offering a product for sale by using the skills of advertising and supply.</p> <p><b><u>Basic marketing strategies</u></b></p> <ul style="list-style-type: none"> <li>• Advertising by posters, hand bills TV, radio, word of mouth.</li> <li>• Exhibitions, Bazaars, Fairs.</li> <li>• Effective decoration and Finishing.</li> <li>• Packaging – attractive packaging.</li> <li>• Transportation.</li> </ul>	<p>Guide Students to:</p> <p>explain the meaning and purpose of marketing.</p> <p>discuss the different ways of marketing products.</p> <p>discuss the strategies for selling products.</p> <p>suggest other methods of marketing products.</p> <p>Role-play ways of advertising and distributing products.</p>	<p>Students to:</p> <p>Write an essay describing strategies for pricing and marketing art products.</p>

UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<p><b>UNIT 3</b></p> <p><b>CONTROLLING BUSINESS RISKS</b></p>	<p>The student will be able to:</p> <p>2.3.1 analyse business risks.</p> <p>2.3.2 develop a plan for controlling business risks.</p>	<p><b>Business Risks:-</b> Business losses are due to the types of risk a business faces. There are direct risks and indirect risks. Direct risks include:</p> <ul style="list-style-type: none"> <li>- theft (also known as larceny)</li> <li>- fire</li> <li>- misuse of capital and profit through irresponsible expenses</li> </ul> <p>Indirect risks include:</p> <ul style="list-style-type: none"> <li>- lack of sale due to faulty and low quality products or due to wrong business location.</li> <li>- Currency inflation</li> <li>- Introduction of new taxes</li> <li>- Changes in labour laws.</li> </ul> <p><b><u>Controlling business risks</u></b> Theft:- regular checks of stocks and finished products.</p> <ul style="list-style-type: none"> <li>- hire an accountant/bookkeeper to check the business accounts every month.</li> <li>- Increase vigilance and security to minimize theft</li> </ul> <p>Fire:- qualify electrical connections to prevent fire out break.</p> <ul style="list-style-type: none"> <li>- Fire extinguishers should be checked regularly by fire service officers.</li> </ul>	<p>Guide Students to:</p> <p>Discuss the two types of risk that a business faces and explain why some businesses fail whilst others succeed.</p> <p>Discuss the two types of business risks and explain their differences.</p> <p><b>Note:</b> Indirect risks are more difficult to control and account for the greater portion of business losses.</p> <p>Describe how business capital and profit may be misused.</p>	<p>Students to:</p> <p>Investigate and write reports on the factors, which lead to the collapse of enterprises in their locality.</p> <p>State the two types of business risks and explain their differences.</p> <p>Discuss how a Senior High School graduate in sculpture can set up and manage a successful sculpture enterprise.</p>



UNIT	SPECIFIC OBJECTIVES	CONTENT	TEACHING AND LEARNING ACTIVITIES	EVALUATION
<b>UNIT 4</b>  <b>THE EXPORT MARKET FOR SCULPTURE</b>	<p>The student will be able to:</p> <p>2.4.1 identify the various agencies that promote export trade in Ghana.</p> <p>2.4.2 analyse the processes involved in exporting sculpture.</p>	<p><b><u>Agencies in Export Trade</u></b>  Ghana Export Promotion Council, Aid to Artisan Ghana (ATAG), National Board for Small Scale Industries (NBSSI), Banks, NGO's, Ministry of Trade &amp; Industry, Trade Associations like Sculpture and Weavers Association, etc.</p> <p>Processes involved in export of sculpture.</p>	<p>Guide students to:</p> <p>undertake a survey to identify and report to class the various agencies and associations promoting the export trade.</p> <p>Discuss the process involved in the export trade.</p>	<p>Students to:</p> <p>Make a compilation of some agencies promote export trade.</p> <p>Write the steps involved in exporting sculpture items.</p>
<b>UNIT 5</b>  <b>THE IDEAL STUDIO</b>	<p>2.5.1 describe the characteristics of an Ideal Studio.</p> <p>2.5.2 list facilities needed in an Ideal Studio.</p> <p>2.5.3 set up a studio.</p>	<p><b><u>Characteristics of an Ideal Studio</u></b>  Indoor area, outdoor space.</p> <p><b><u>Facilities needed</u></b>  Water, adequate lightening, good ventilation, fire extinguisher office, washroom, various sections for different kinds of work e.g. carving, modelling, casting, etc.  Storage area for  - tools and materials  - finished works  - raw materials, etc.</p> <p>Setting up a Studio.</p>	<p>discuss the characteristics of an Ideal Studio.</p> <p>discuss the facilities needed in an Ideal Studio.</p> <p>In groups, role play the setting up of the studio in the classroom taking into consideration all the necessary requirements for setting up a studio.</p>	<p>List and explain facilities needed for an Ideal Studio.</p> <p>Take a trip to some sculpture studios and present a report on why they consider the studios visited ideal or not for sculpture.</p> <p>Role play the setting up of a studio in the classroom.</p>

## TOOLS AND MATERIALS FOR SCULPTURE

Tools		Materials	
1. Computer	25. Drills	1. Plaster of Paris (POP)	28. Perspex
2. Scanner	27. Scooping Tool	2. Clay	29. Thinner
3. Printer	27. Brushes	3. Plasticine	30. Formica
4. Software (Rhino, Corel Draw, Maya, 3-D max, Cinema 4-D, Micromedia Poser7, etc.)	28. Grinder	4. Wax	31. Sawdust
5. Chisels and Gouges	29. Coal Chisel	5. Soap	32. Sand
6. Mallet	30. Trowel	6. Bones	33. cane, bamboo, straw, grass, raffia
7. Adze	31. Texturing tool	7. Stone	34. Leather/hide/skin
8. Oil Stone/Sharpening stone	32. Plastic bowls	8. Wood	35. calabash/gourd
9. Cutlass	33. Plastic buckets	9. Shells	36. Seeds
10. Spatula	34. Markers	10. Fabrics	37. Feathers
11. Knives of all kind	35. Punch	11. Binding wire	38. Styrofoam
12. Hand saw	36. Scraper	12. Galvanized wire	39. Twines/cords
13. Claw Hammer	37. Cutting wire	13. Nylon coil	40. Scraps (ceramic, glass, metal etc)
14. Pliers	38. Scissors	14. Plastic sheet	41. Acid solution
15. Pincers	39. Soldering hammer	15. Iron plate/sheet	42. Dyes
16. L-Square/T-square	40. Dividers	16. Copper sheet	43. nails
17. Tape measure/rulers	41. Screw drivers	17. Aluminum sheet	44. Charcoal
18. Hacksaw and Hacksaw blades	42. Sieves	18. Galvanized sheet	45. Etc. etc.
19. Vices, Clamps	43. Shears	19. Binding wire	
20. Bench Screws	44. Spoons	20. Glass	
21. G-Clamps	45. Camera	21. Fibre glass	
22. Files (round, flat, triangular, etc.)	46. Chainsaw	22. Laterite	
23. Caliper		23. Lime	
24. Carpenter's Plane		24. PVC white glue	
		25. Contact glue	
		26. Lacquer	
		27. Paint (emulsion, oil)	

## Glossary

<b>Aggregate:</b>	an inert material mixed with cement to make concrete e.g. sand or gravel.
<b>Air vent:</b>	(or duct) passage allowing air to escape from a mould
<b>Armature:</b>	an internal framework for sculpture, <u>particularly necessarily</u> with soft materials such as clay and wet plaster
<b>Assemblage:</b>	sculpture constructed from a number of pre-formed or ready-made materials or “found objects”
<b>Banker:</b>	heavy-duty wooden bench for carving
<b>Bloom:</b>	residual material left from a plaster mould on a cement cast
<b>Bust peg:</b>	armature specifically made for head sculpture
<b>Butterfly:</b>	internal support for clay inside an armature
<b>Calipers:</b>	instrument for measuring in sculpture
<b>Carving:</b>	art of cutting or subtracting materials to shape a sculpture
<b>Cast:</b>	a sculpture taken from a mould
<b>Casting:</b>	process of mould making and reproducing sculpture
<b>Catalyst:</b>	a chemical substance which, when added to another material, will cause a reaction such as setting or hardening
<b>Cement:</b>	binding ingredient in concrete
<b>Chipping-out:</b>	removal of a plaster waste mould from a cast
<b>Chisel:</b>	cutting tool for carving or shaping wood or stone
<b>Cement fondu:</b>	fine, dark grey cement highly suitable for sculpture
<b>Claw tool:</b>	tooth-edged chisel for carving or shaping wood or stone
<b>Concrete:</b>	mixture of cement and sand and other aggregate with water
<b>Construction:</b>	method of making sculpture by joining pre-formed materials
<b>Constructivism:</b>	twentieth-century art movement originating from Russia, pioneering the use of new materials and technology
<b>Coping saw:</b>	fine-blade saw useful for cutting curves
<b>Cubism:</b>	early twentieth-century art movement in which subject-matter was defined in geometric planes
<b>Curing:</b>	setting or hardening of materials like plaster or cement

<b>Direct carving:</b>	a method of working straight into the stone without “scaling up” from a small model or Marquette. The process allows sculptors to develop or improvise their ideas as they carve
<b>Dowel:</b>	lengths of round-section wood used to peg joints in wood
<b>Duct:</b>	channel for pouring casting material
<b>Dummy mallet:</b>	metal, round headed, stone-carving mallet
<b>Epoxy resin:</b>	plastic casting material; also strong glue
<b>File:</b>	metal tool with teeth or other abrasion for smoothing sculpture
<b>Filler:</b>	paste for repairing cracks or indentation in sculpture
<b>Firing:</b>	baking clay in a kiln to a temperature of at least 1000°C
<b>Futurism:</b>	twentieth-century art movement originating in Italy, concerned with the expression of movement in sculpture and painting
<b>G-clamp or Clamp:</b>	simple device for holding wood
<b>Glass fiber:</b>	strengthening material for cement or resin
<b>Gothic:</b>	art and architecture of the Middle Ages, originating in France
<b>Gouge:</b>	curved carving tool for carving
<b>Hacksaw:</b>	saw with replaceable blades for cutting metal
<b>Hollow cast:</b>	method of filling a mould by laminating or layering to avoid too much weight in the cast. Some materials, such as cement, resin and bronze do not tolerate solid casting
<b>Key:</b>	locking device for mould reassembly
<b>Laminate:</b>	application of materials in layers, usually with a brush, for hollow casting
<b>Mallet :</b>	a wooden or plastic tool for hitting chisels or gouges when carving
<b>Maquette:</b>	small model or 3-D sketch for large sculpture
<b>Modeling:</b>	making models with soft materials such as clay, wax or wet plaster
<b>Mouldmaking:</b>	process of making a mould
<b>Mould:</b>	a negative form, from which a sculpture can be made in another material
<b>Neo-classical:</b>	eighteenth- or early nineteenth century art using classical sculpture and themes
<b>Oilstone:</b>	stone for sharpening chisels and gouges

<b>Patina:</b>	coloured, polished, or worn finish to the surface of a sculpture. This can be achieved naturally in the open air, or artificially with paints or acids
<b>Piecemould:</b>	a mould made in more than one section
<b>Plaster of Paris:</b>	gypsum cement used for sculpture and mouldmaking
<b>Plaster trap:</b>	sink for sculpture studios
<b>Plasticity:</b>	term used by sculptors to describe materials that are easy to model, such as clay
<b>Point:</b>	pointed stone carving tool. A similar tool, although thicker, is a punch. Both are used to roughly shape stone
<b>Pot life:</b>	length of time a material can be used before it sets or hardens
<b>Release agent:</b>	solution applied to a mould to prevent it adhering to the cast
<b>Relief:</b>	sculpture that projects from a flat surface
<b>Riffler:</b>	small file in a variety of shapes for reaching difficult corners in wood or stone
<b>Riveting:</b>	joining pieces of metal with rivets or flat metal bolt
<b>Scaling-up:</b>	method of copying a small model on a larger scale
<b>Scrim:</b>	loose-weave jute bandage used for reinforcing plaster
<b>Sculpture-in-the-round:</b>	sculpture that is free standing and has been considered from all sides
<b>Shelf life:</b>	the length of time materials can be stored before deteriorating
<b>Shellac:</b>	traditional varnish and sealer
<b>Shim:</b>	fine brass sheet used for walling in piecemould making
<b>Silicone rubber:</b>	cold cure mouldmaking material
<b>Slip:</b>	clay mixed with water to a creamy consistency
<b>Slipstone:</b>	small, shaped sharpening stone for removing the burr on wood carving gouges
<b>Terracotta:</b>	'baked earth' is the literary translation, but it also refers to the red/brown clay <i>that</i> is highly suitable for firing
<b>Vorticism:</b>	Britain's answer to cubism: a short lived movement with many famous members such as Epstein and Gaudier-Brzeska
<b>Wastemould:</b>	a plaster mould which is destroyed when released or chipped from the cast

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