Strand:	Tools, Equipment and Processes	**Sub-Strand:**	Cutting/Shaping

BASIC 9

WEEKLY LESSON PLAN – WEEK 5

Content Standard:	B9.3.2.1 Demonstrate the understanding of cutting/shaping tools and equipment used for making artefacts/products				
Indicator (s)	B9.3.2.1.2: Demonstrate how to use shaping and cutting tools and equipment used for producing artefacts/products B9.3.2.1.3: Demonstrate how to care for and maintain cutting and shaping tools for making artefacts/products.	**Performance Indicator:** Learners can create artefacts using cutting and shaping tools and equipment.			
Week Ending	09-02-2024				
Class	B.S.9	**Class Size:**		**Duration:**	
Subject	Career Technology				
Reference	Career Technology Curriculum, Teachers Resource Pack, Learners Resource Pack				
Teaching / Learning Resources	Poster, Pictures, Charts, Video	**Core Competencies:**	• Demonstrate a thorough understanding of a generalized concept and facts specific to task or situation. • Effectively evaluate the success of solutions they have used to attempt to solve a complex problem.		

DAY/DATE	**PHASE 1 : STARTER**	**PHASE 2: MAIN**	**PHASE 3: REFLECTION**
WEDNESDAY	Demonstrate on how to use cutting and shaping tools and equipment for making wood works.	1. Assist Learners to identify the skills and techniques for using cutting and shaping tools and equipment for making wood works. 2. Engage Learners in designing a sheet metal dust bin using cutting and shaping tools. 3. Learners brainstorm to identify examples of cutting and shaping tools used at building sites for making bricks and blocks.  • **Sheet Metal Cutting:** Several times, metal pieces may	Through questions and answers, conclude the lesson. **Exercise;** State the procedures involved in cutting out and designing a Paper.

		get accidentally stretched, leading to disfigurement. So, complex shapes cannot be achieved using stretched metals. In such cases, the metal is cut to the desired shape. This process is performed using different types of cutting tools: a. **Shears:** Various shears including hand shears, power shears, throatless hand shears are used to cut the metal. As the name suggests, hand shears are manually operated shears and are must-have for any sheet metal fabrication facility. Power shears enable effortless and easy metal cutting than hand shears. These shears come in two types – pneumatic and electric shears. However, some of them are not capable of cutting complex shapes. This results in wastage of materials. Throatless shears are designed in a way that they can cut tight radii. These types of shears are operated by hand and do not waste material. b. **Plasma Cutters:** They can easily cut sheet metal when adjusted properly, and maintain a high level of accuracy. They are ideal for making long straight cuts and help reduce wastage. c. **Angle Grinders:** They are equipped with a disc or wheel that spins to cut the metal. • **Die Cutting:** As the name suggests, this type of cutting involves the use of a die to cut sheet metal in the desired shape. This technique also helps reduce material wastage, and achieve a proper shape. This technique is also referred to as shearing.	

FRIDAY	Demonstrate on how to wash, clean and sterilize cutting and shaping tools.	1. Discuss with the Learners on the need to care and maintain cutting and shaping tools and equipment. 2. Assist Learners to practice on how to care for and maintain cutting and shaping tools. 3. Learners brainstorm to identify ways of avoiding rusting of cutting and shaping tools. **What are the Best Ways to Keep Tools from Rusting?** The 5 best ways to keep tools from rusting include the following: 1. Keep Tools Clean Keeping tools clean and using them frequently is the key to preventing rust. When tools don't have the chance to sit and collect dust and/or moisture, they are more likely to resist corrosion. A good practice to uphold, which will go a long way in maintaining your tools, is to give your hardware a quick wipe down with a clean, dry cloth after each use and before storing. 2. Keep Hand Tools and Power Tools Separated A thin layer of moisture-absorbing sawdust is all it takes for the average metal hand tool to potentially rust. Therefore, keep power tools, which kick-up a lot of dust, far away from your manual tools. If your shop is too small and you just don't have space out your tools, then you must be extra vigilant in keeping them clean. 3. Control Humidity Limiting moisture exposure is very important in preventing rust. The area in which your tools are stored (whether it be in the garage or in the basement) should have low humidity and plenty of fresh air circulating about. Installing a dehumidifier is recommended if you live in a highly humid region. As well, utilizing a ceiling fan along with a few standing oscillating fans is very helpful. And, of course, opening windows while you work is also a good idea. 4. Keep Tools Off the Ground To properly maintain your tools, you must keep them off the floor. Moisture from the ground will rise and cause your tools	Reflect on the need to care for and maintain cutting and shaping tools and equipment. **Exercise;** State the steps to follow to prevent rusting of cutting and shaping tools.

		to rust, especially if they're covered with dust. They should be stored in toolboxes on shelves in a well-ventilated area. Consider putting silica packets into your tool chests or wherever you keep your handheld tools. These little white packets absorb moisture and are easy to use. Just toss a few into your toolbox and voila! 5. Apply a Protective Oil Coating A very effective way to prevent rust on metal tools is to apply a protective layer, such as an oil coating. A swipe of non-oxidizing mineral oil goes a long way in maintaining your hardware.	

Name of Teacher: **School:** **District:**