BASIC 9

WEEKLY LESSON PLAN – WEEK 6

Strand:	Tools, Equipment and Processes		**Sub-Strand:**	Joining and Assembling	
Content Standard:	B9.3.3.1 Demonstrate understanding of materials. tools and equipment used for joining and assembling artefacts/products				
Indicator (s)	B9.3.3.1.1: Identify and classify joining and assembling materials, tools and equipment used for making artefacts/products		**Performance Indicator:** Learners can apply techniques to use joining and assembling tools.		
Week Ending	16-02-2024				
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:**	• Creativity and Innovation • Manipulative skills • Operational skills.	

DAY/DATE	**PHASE 1 : STARTER**	**PHASE 2: MAIN**	**PHASE 3: REFLECTION**
WEDNESDAY	Discuss meanings of keywords and terminologies in the lesson with the Learners. **Terminologies;** • Fastening • Clamping • Joining • Rivets • Nanotechnology • Welding • Laboratory • Assembling • construction	1. Show learners pictures and video displaying joining and assembling tools. 2. Learners brainstorm to identify examples of joining and assembling tools and equipment. 3. Discuss with the Learners about the importance of using joining and assembling tools. **Joining and assembling tools** are used to connect and secure two or more pieces of material together to create a larger structure or component. These tools can be used with a variety of materials, including wood, metal, plastic, and composite materials. Some common joining and assembling tools include: 1. **Screws**: Screws are threaded fasteners that are used to attach two or more materials together. They can be used with a variety of materials and are available in a range of sizes and styles. 2. **Bolts**: Bolts are similar to screws, but they are larger and typically used with nuts to secure materials together. 3. **Nails:** Nails are used to attach materials together	Through questions and answers, conclude the lesson. **Exercise;** State 5 examples of joining and assembling tools.

		by driving them through one piece and into another. 4. **Adhesives**: Adhesives, such as glue and tape, are used to bond materials together. They can be used with a variety of materials and are available in different strengths and types. 5. **Welding**: Welding is a process that uses heat and pressure to fuse materials together. It is commonly used with metal materials. 6. **Rivets**: Rivets are used to join materials together by inserting a metal pin through two or more pieces of material and then bending the ends of the pin to hold it in place.	
FRIDAY	Review Learners knowledge on the previous lesson.	1. Assist Learners to classify joining and assembling tools and equipment under various workshops where they are used. 2. Learners brainstorm to identify examples of modern methods and tools used for joining food. 3. Discuss with the Learners about how joining and assembling tools are used in the sewing workshop.  Assembly and Joining - Assembly is much more than welding. This technology area covers adhesive mixing, metering, and dispensing equipment; hardware-insertion presses; clamps; fixtures, holders, jigs, and vises; part counters; part feeders; and part positioners. ▪ <u>Mechanical (hardware) Assembly</u>: Uses various different types of hardware or fasteners (bolts, nuts, screws, etc.) to assemble multiple parts together. This method is great for an assembly that is not permanent, needs maintenance, adjustments, and replaceable parts because it allows the	Reflect on the importance of using joining and assembling tools and equipment. **Exercise;** Explain 5 types of joining and assembling tools and equipment.

		flexibility to remove and reinstall hardware. This is great for chassis, box assemblies, and water tight assemblies. ▪ Weld Assembly: Fuses two or more pieces of metal together to essentially become one. This method is great for an assembly that is permanent, structural, and needs strength. This assembly method is great for structural and robust assemblies. ▪ Spot Weld Assembly: Joins and bonds two pieces of sheet metal together. This method is less permanent than regular welding and less expensive, but more permanent that hardware assembly. This assembly method is great for cabinets, brackets, and other sheet metal components. ▪ Rivet Assembly: Has similar but less strength than a weld, and also cheaper. This method is great for assembles that need shear strength and for assembles that use different types of material. This assembly method is preferred for structural and robust assemblies that encounter fluctuating temperature and pressure. ▪ Brazing / Soldering Assembly: Uses a filler metal that is melted to a certain temperature which will bond the two components together. This is a great way to bond two different types of metals together while still keeping the strength, like a weld. This type of assembly method is used for pipes for plumbing, flashing, gutters, electronic parts, and jewelry.	

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