School Name:BMC School

Name of the Teacher: Quresha Ansari

Subject: Science

Class: 6th

Chapter Name: Simple Machine

Pre-knowledge required: Students must know about Basic idea of effort, work, push, pull.
Familiarity with everyday tools (knife, bottle cap, bicycles, carts, ramps).
Ability to observe differences in movement and effort.
Common local experiences of lifting and moving things.

Learning Objective of the lesson:
• Students will understand the concept of Simple and complex machine and its how it is used for reducing efforts, and doing more work in less time.
• Studnets will catgegorise different classes of Lever bsed on the position of F, L and E
•Students will be able to evaluate different tools (trolley, bucket, stick, rope) and identify which simple machine reduces maximum effort, with proper comparison and reasoning.
• Students will use the lever rule to explain how two students of different weights can balance a seesaw by adjusting their positions.
•Students will identify multiple simple machines within one tool and explain how each contributes to the task. Choose appropriate machines for specific problems and justify their reasoning.
• Finally, they will compile all their research work and findings into a well-presented PPT. They can include various machine-related images and connect their work with a spreadsheet where they research the effects of generic and brand-name medicines on different countries.

Sub-Topic	**Specific Objective**	**Activities students will do**	**Which 21st century skills to be developed in students through the activity?**	**What will students create/project u**	**ICT Application students will use to create the project**	**Levels of Bloom's Taxonomy stu activity**	**Theory of Learning teacher will use in this lesson**
Simple Machine		Students will give a Pre-Quiz. They will use their Login ID and Password in the Leap Portal to attempt the quiz					
	Students will understand the concept of Simple and complex machine and its how it is used for reducing	discussion Start with a simple question: what do you mean by work? "Can anyone tell me how a seesaw works?" Use this as an introduction to levers, a type of simple machine.Briefly explain how each one works and give an example of where students might have seen or used them (e.g., a door handle is a wheel and axle, a ramp is an inclined plane). Ask students if they can think of machines or tools that use one of these simple machines. For example, bicycles use levers (brake handles), pulleys (gears), and wheels.	critical thinking about machine we use day to day life and how they used by us how simple machine convert to complex machines communicational where students Articulating thoughts clearly (verbal/written), active listening, providing constructive feedback				
	• Students will use the lever rule to explain how two different weights can balance adjusting their positions.	Studets will creat the groups and students be looking at example of SeeSaw and trying to figure out how a low weigh person can lift a heigh weigt person., they will also be introduced but archemidies law where he said tht he can lift the whole earth	Problem solving where students Identifying issues like seesaw within the discussion and working towards effective, reasoned solutions.	Studets will use a PHET Simulation to find balancing point for different weight on both sides of a SeeSaw https://phet.colorado.edu/sims/html/balancing-	PHET simulation	Here , understanding the concept lever parts work with laod , fulcurum and load .. relate with real life problems like holding bags ,etc	social learning here studnts observing around and try to solve .
	Studnets will catgegorise different classes of Lever bsed on the position of F, L and E	students will search on Lever and its three parts give examples , paste photos and they explain how the positions of Fulcrum, Load nad Efffort contributes to the efficency of the lever and categorise it to various clases of lever.	Digital literacy (using apps or spreadsheets) Collaboration & communication	any application making lever simulation	ppt		

	Students will be able to evaluate dn categorise different tools (trolley, bucket, stick, rope) and identify which simple machine reduces maximum effort, with proper comparison and reasoning.	creat students groups and all groups evaluate different tools (trolley, bucket, stick, rope) and identify which simple machine reduces maximum effort, with proper comparison and reasoning //.Tool // Simple Machine Used // Effort Level // Comparison & Reasoning (Why?) // they will write about simple machine and complex machine .	critical thinking + communication.	students will creat one slide on tools use in machine and how effort increase and decrease with reasoning	ppt	By making table they can applying all its logic , knowledge ideas with this they also remember the effors level which low , high, or medium with all understanding .	
	•Students will identify multiple simple machines within one tool and explain how each contributes to the task. Choose appropriate machines for specific problems and justify their reasoning.	here group will select one or more than one task and work on it . 1. “In your neighborhood, people often carry heavy water buckets from the well to home. How could a wheelbarrow, pulley, or lever be used to reduce effort? Identify the simple machines and explain how they help.” 2.“Think of a daily problem in your neighborhood that involves lifting, moving, or cutting something heavy. Design a tool using one or more simple machines to make the task easier. Explain how each machine works and reduces effort.” 3.“Residents sometimes need to lift bricks, sandbags, or tiles to higher floors during home repairs. Which tool(s) could help reduce effort and prevent injury? Break the tool into simple machines and explain your reasoning.” 4.“You want to move a heavy object (like a small cart or container) onto a platform. How could an inclined plane help? Could you combine it with a lever or wheel & axle to make it even easier?” 5.“When carrying two different weights (like water buckets) on a plank, it can tip over. How can you balance the weights using the lever rule? Identify the lever components and justify your reasoning.”	Problem solving where students Identifying issues like seesaw within the discussion and working towards effective, reasoned solutions.and Adjusting to new information or different discussion paths.	Students will write all details about problem and solv this problems on ppt also they use photos and videos if they take interview then they add those interview and photos. they can use sheet for research porpose if they want to make graph or others thing on sheet they can .	sheet	Here students applying all information to analysed the problems happened in sorrounding taking stand or say decision on problems and creat the solution for it with proper explaination of concept and idea behind it	theory of cognitism solve the problem with build their understanding by connecting new info with existing knowledge here Theory of constructism use
		Students will bring all their findings together, including the spreadsheet and merge with the ppt they have made, and organise the order of the presentation with the links and sources that they have used to collect data and do other research work.		students merge spreedsheet and ppt .	spreedsheet merge with ppt		connectivism here students use technology to merge their knowlegde with problem solving thinking .
		Students will give a Post-Quiz. They will use their Login ID and Password in the Leap Portal to attempt the quiz					