ICT PRACTICAL WORKSHEET - STD IX

Worksheet No	**7.1**
Name of Chapter	Laboratory within the Computer
Name of Activity	Mathematics with GeoGebra
Software Used	GeoGebra
Time	40 Minutes

Order of Events

Activity	**Instructions**
Open GeoGebra	Launch GeoGebra software on your computer.
Explore Tools	Identify tools in Groups 2, 3, 5, 6, 8, and 10. Record their uses in a table.
Draw Parallel Lines	Draw 4 parallel lines at equal distances.
Draw Transversal	Draw a line that cuts all 4 parallel lines.
Measure Segments	Use the **Distance/Length** tool to measure segments formed by intersections.
Observe Pattern	Note if the segments are equal. Drag the transversal and observe changes.
Open Applet	Open and run `triangle.ggb` from School Resources.
Observe Ratios	Note the ratios EC/EA and FC/FB. Drag vertices and observe ratio consistency.
Divide a Line	Draw a 19-unit line. Use a slanting line and parallel lines to divide it into 3 equal parts.
Save File	Save your construction as `line_division.ggb`.

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Worksheet No	**7.2**
Name of Chapter	Laboratory within the Computer
Name of Activity	Chemistry with Kalzium
Software Used	Kalzium
Time	40 Minutes

Order of Events

Activity	**Instructions**
Open Kalzium	Launch Kalzium software.
Explore Periodic Table	Observe groups, periods, and total elements.
Find Sodium	Click on Sodium (Na). Record atomic number, group, period, and electron configuration.
View Atom Model	Click **Atom Model** to see electron shells.
Complete Table	Fill details for Lithium, Potassium, Rubidium, Beryllium, Magnesium, and Calcium.
Identify Main Groups	Use **Scheme** → **Groups** to highlight main group elements.
Use Iconic View	Click **Scheme** → **Iconic** to see symbols representing uses of elements.
Search Elements	Use the search bar to find Potassium and other elements.
Complete Details Table	Fill Table 7.5 with details of Lithium, Aluminium, Zinc, Tin, and Polonium.
Save Notes	Save your observations in a document named `element_properties.odt`.

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Worksheet No	**7.3**
Name of Chapter	Laboratory within the Computer
Name of Activity	Physics with PhET – Bending Light
Software Used	PhET Simulation
Time	40 Minutes

Order of Events

Activity	Instructions
Open PhET	Launch PhET and select **Physics → Bending Light**.
Select Intro	Start with the **Intro** simulation.
Observe Light Bending	Move the light source and observe how light bends between air and water.
Use Protractor	Activate the protractor tool to measure angles of incidence and refraction.
Record Angles	Fill Table 7.6 with angles for different media (air-water, air-air, etc.).
Switch to Wave View	Use the **Wave** tool to observe light as a wave.
Explore Prisms	Go to the **Prisms** tab and observe light passing through different prisms.
Analyze Results	Write a conclusion based on your angle measurements.
Save Screenshots	Take screenshots of interesting observations and save as `light_bending.png`.