

## ICT PRACTICAL WORKSHEET - STD VIII

Worksheet No	8.1
Name of Chapter	Fun with Learning Science
Name of Activity	Explore Time Zones and Day Length Using Sunclock
Software Used	Sunclock
Time	40 Minutes

### Order of Events

Opening the Software	Click on the <b>Show Applications</b> icon (nine dots) or press the <b>Super</b> key. Type <b>Sunclock</b> in the search bar and open it.
View Time Zone Map	Click on the <b>Clock &amp; Map Window (I)</b> tool to open the time zone map.
Display Longitude Lines	Click the <b>Draw/Erase Meridian Tool (M)</b> once to show longitudinal lines. Click again to show values.
Switch to Legal Time	Click the <b>Legal Time Mode (L)</b> tool to view standard time.
Check Time in Kolkata	Click on <b>Kolkata</b> on the map. Note the <b>date</b> and <b>time</b> displayed at the bottom left.
Check Time in Auckland	Click on <b>Auckland</b> (New Zealand). Record the <b>date</b> and <b>time</b> .
Calculate Time Difference	Find the difference between the times in Kolkata and Auckland. Record in <b>hours</b> and <b>minutes</b> .
Save Screenshot	Take a screenshot of the Sunclock window showing both times. Save as <b>time_comparison.png</b> .
Finishing	Close Sunclock.

## ICT PRACTICAL WORKSHEET - STD VIII

Worksheet No	8.2
Name of Chapter	Fun with Learning Science
Name of Activity	Observe Sunrise and Sunset Times in Mumbai
Software Used	Sunclock
Time	40 Minutes

### Order of Events

Opening the Software	Open Sunclock. Maximize the window and enable the menu bar.
Enable Day/Night View	Click the <b>Toggle Night (N)</b> tool to show day and night regions.
Show the Sun	Click the <b>Toggle Sun/Moon (Y)</b> tool to display the Sun.
Set to Legal Time	Click the <b>Legal Time Mode (L)</b> tool.

Opening the Software	Open Sunclock. Maximize the window and enable the menu bar.
Select Mumbai	Click on <b>Mumbai</b> on the map.
Adjust Date	Use <b>G</b> to set time increment to <b>1 day</b> . Use <b>A</b> or <b>B</b> to change the date to <b>December 22</b> .
Start Animation	Press the <b>Animation (')</b> key to start the animation.
Record Sunrise Time	Stop animation when daylight first appears over Mumbai. Note the time.
Record Sunset Time	Stop animation when daylight fully disappears. Note the time.
Repeat for Other Dates	Repeat steps for <b>March 21</b> , <b>June 21</b> , and <b>September 23</b> .
Save Data	Save the recorded times in a text file named <code>mumbai_sun_times.txt</code> .
Finishing	Close Sunclock.

## ICT PRACTICAL WORKSHEET - STD VIII

Worksheet No	8.3
Name of Chapter	Fun with Learning Science
Name of Activity	Build a Water Molecule Using Avogadro
Software Used	Avogadro
Time	40 Minutes

### Order of Events

Opening the Software	Open Avogadro.
Select Draw Tool	Click the <b>Draw Tool</b> from the toolbar.
Add Oxygen Atom	Select <b>Oxygen</b> from the <b>Element</b> menu. Uncheck <b>Adjust Hydrogen</b> . Click on the canvas to place the oxygen atom.
Add Hydrogen Atoms	Select <b>Hydrogen</b> from the <b>Element</b> menu. Click and drag from the oxygen atom to add two hydrogen atoms.
Optimize Geometry	Go to <b>Extensions</b> → <b>Open Babel</b> → <b>Optimize Geometry</b> .
Show Labels	Check <b>Labels</b> in <b>Display Types</b> to show element symbols.
View in 3D	Use the <b>Navigation Tool</b> to rotate and view the molecule in 3D.
Save the Model	Go to <b>File</b> → <b>Save</b> . Save as <code>water_molecule.xyz</code> .
Take Screenshot	Take a screenshot of the water molecule. Save as <code>water_molecule.png</code> .
Finishing	Close Avogadro.

## ICT PRACTICAL WORKSHEET - STD VIII

<b>Worksheet No</b>	<b>8.4</b>
Name of Chapter	Fun with Learning Science
Name of Activity	Draw a Circumcircle Using GeoGebra
Software Used	GeoGebra
Time	40 Minutes

### Order of Events

<b>Opening the Software</b>	<b>Open GeoGebra.</b>
Draw Equilateral Triangle	Select the <b>Regular Polygon Tool</b> . Click on the workspace, enter <b>3</b> for vertices, and click <b>OK</b> .
Draw Perpendicular Bisectors	Select the <b>Perpendicular Bisector Tool</b> . Click on each side of the triangle.
Mark Intersection Point	Use the <b>Intersect Tool</b> to mark the point where the bisectors meet.
Draw Circumcircle	Select the <b>Circle with Centre Through Point Tool</b> . Click the intersection point and then one vertex of the triangle.
Hide Construction Lines	Right-click on the bisectors and uncheck <b>Show Object</b> .
Color the Circle	Right-click the circle → <b>Properties</b> → <b>Color</b> . Choose a color.
Save File	Go to <b>File</b> → <b>Save</b> . Save as <code>circumcircle.ggb</code> .
Export Image	Go to <b>File</b> → <b>Export</b> → <b>Graphics View as PNG</b> . Save as <code>circumcircle.png</code> .
Finishing	Close GeoGebra.