

# Geography Laboratory Profile



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## Figures and Description of the Instruments

| <b>Name of the Instruments</b> | <b>Figure</b>   | <b>Description</b>   |
|--------------------------------|---|--|
| Globe                          |    |  |
| Rocks and Minerals             |   | <p>Some special characteristics/features are help to know the specific identity of the common Rocks and Minerals to the Teachers or students either eye estimation or using testing materials according to Rocks and Minerals.</p> |
| Survey chain and Pin           |  | <p>This flags are used to indicate the point of topography when surveying.</p>   |
| Map Stand                      |  | <p>This stand is used to show the map to the students.</p>   |




|  |   |  |
|--|---|--|
| <p>White Board with Marker</p>         |    | <p>Used to draw or write something in the time of class teaching. Various colours of Markers are used to show clearly anything to the students.</p>                |
| <p>Graph Board</p>                     |    | <p>Used to graphically represent different types of data.</p>  |
| <p>Maximum and Minimum Thermometer</p> |   | <p>This type of helps to know the maximum and minimum temperature of the day. It is set on the wall of geography Room. So, it is called Room/wall Thermometer.</p> |
| <p>Centigrade Thermometer</p>          |  | <p>This Thermometer indicates daily temperature only in Centigrade Unit.</p>   |
| <p>Dry and Wet bulb Thermometer</p>    |  | <p>This type of Thermometer used for checking humidity level in atmosphere.</p>  |

|                          |   |   |
|--------------------------|---|---|
| <p>Barometer</p>         |    | <p>It is used for measuring the wind pressure.</p>  |
| <p>Box Compass</p>       |   | <p>This Compass is setting inside a box which indicates the various direction (i.e. N-S, F-W ETC.)</p>  |
| <p>Prismatic Compass</p> |  | <p>A Prismatic Compass is a 12 navigation and surveying instrument which is extensively used for calculating bearing of survey lines and included angle between them.</p> |
| <p>Divider</p>           |  | <p>It is used to draw various cartographic techniques/diagrams in Geography.</p>  |
| <p>Set Square</p>        |  | <p>Set Squares are used to draw parallel or any other purpose of geographical drawing.</p>  |



|                |   |  |
|----------------|---|--|
| 3D Models      |    | They are used to show clearly to the students about the original thing in the time of class teaching for concrete concept.   |
| General Scale  |    | Various General Scales are used to draw Straight lines or other purpose of graphical drawing.  |
| Diagonal Scale |   | A Scale which consists of a set of parallel lines, with other lines crossing them obliquely, so that their intersections furnish smaller subdivisions of the unit of measure than could be conveniently marked on a plain scale. |
| Protector      |  | This instrument is very important to make the different cartographic pictures; such as Map Projection, Proportional Sphere, Square, Pic-chart etc.   |
| Colour Pencil  |  | Various Colours of Pencil are used to specify the cartographic pictures, Map projections and Statistical figures.  |

|             |   |   |
|-------------|---|---|
| Wood Pencil |    | Used to draw some geographical items and darken anything.   |
| Planimeter  |    | It is used for measurement of the area in map.  |
| Dumpy Level |   | A Dumpy Level is an optical instrument used to establish or check points in the same horizontal plane. It is used in surveying. |
| Plane Table |  | It is used for small scale landuse survey.  |

|                  |   |  |
|------------------|---|--|
| <p>IST</p>       |    | <p>Indian Standard Time is the time observed throughout India. It is calculated on the basis of <math>82^{\circ}30'E</math> longitude (Allahabad district in the state of Uttar Pradesh)</p> |
| <p>Rotameter</p> |   | <p>A Rotameter is a device that measures the flow rate of fluid in a closed tube.</p>  |
| <p>Staff</p>     |  | <p>A wooden scale which is used to measure the vertical topographic height/altitude from original land to evaluate the topographic condition.</p>  |



Light Tracing  
Table



This table is used to trace something with the help of light of various Geographic items.

# Importance of Geography Laboratory

A geography laboratory may be defined as a room in which are contained all written, audio and visual materials pertinent to geographic instruction. The classroom itself may be converted into a laboratory if it is relatively self-contained and has within it most of the materials that the teacher and the students will normally be utilizing. The physical arrangement of a classroom thus made is such that book cases, magazine racks, newspaper holder and equipment almirahs surround the room.

- ❖ For every subject a separate room or laboratory is essential. For teaching literary subjects ordinary rooms may serve the purpose but for teaching of subjects like geography a separate room or laboratory is essential.
- ❖ Geography is also a science and no course in science can be considered complete without including some practical work in it.
- ❖ The practical work is to be carried out by the individuals and there is a need for a separate geography room. At the international seminar held at Montreal (Canada) in 1950, in which representatives from 23 countries participated it was unanimously agreed that a separate geography room is the most essential thing for effective teaching of geography.
- ❖ It is not possible to make geography teaching effective without making use of maps, charts, globe etc. In the absence of a separate geography room it will be difficult to collect all these things at a place and it is practically impossible to take all these things from one place to another.
- ❖ Moreover in the absence of a separate geography room teacher will not get a congenial atmosphere which is quite essential for effective teaching of geography.
- ❖ Like any other science laboratory, a workshop or laboratory of geography creates a congenial atmosphere and stimulates the imagination of the students and gives them the inspiration.
- ❖ Geography laboratory is a necessary part of school education where students make models of different landforms and other aspects of nature

with the help of lay, wood, paper etc. The laboratory is well equipped with a series of maps, globes, variety of survey equipments like plane table, thermometer, barometer, wet and dry bulb thermometer. CDs related to different topics are also kept in the laboratory school also organize field trips for the students to study the natural occupancy of various facts and inform about physical changes with the help of Global Positioning System and Geographic Information System available on net.

- ❖ Geography Laboratory specializes in the development of qualitative and quantitative research skills in the school. Methods and technique in geography practical cartography including computer cartography. Quantitative techniques and statistical techniques, field survey method, geography informatics compressing techniques such as remote sensing, GIS, GPS, spatial information system. Now graphic aids are powerful medium for teaching and learning. It includes pantograph, flash and strips and pictures.

## Future Plan

- ❖ To uplift the conditions of the laboratory with reference to the modern trends and research of teacher education.
- ❖ To introduce modern techniques on the new innovation of the subjects so that the interest and attitude of the students be positive toward the subject.
- ❖ To meet up the inquisitiveness and interest of the student, the instruments are provided in the subject laboratory.
- ❖ For activities related to laboratory necessary support system to be provided to the student teachers.