

KENDRIYA VIDYALAYA SANGATHAN



BENCHMARKING OF GEOGRAPHY LABORATORY

NEED FOR GEOGRAPHY LABORATORIES IN KENDRIYAVIDYALAYAS

Geography is mother science and it can be studied more effectively through practical in the laboratories and in the field. The importance of the practical work in the geography is widely accepted. It is acknowledged that good quality geography practical Works promote the interest in the students towards developing a good range of the skills, geography knowledge and conceptual understanding. There is a long list of practical work in geography which includes survey and GIS technology. The use of computers in geography has improved the quality and it is need for hours to focus on the quality practical while using the CAT and TAL. Hands-on learning is the only way students can directly observe and understand geography. As students develop effective techniques for observing and testing everything around them, they learn the what, how, when, and why, of things with which they interact. These experiences are necessary today for the geography students.

Bench Marking of Geography Laboratory in Kendriya Vidyalayas

(A) Physical Facilities

S No.	Item\Faculty	Specifications
1.	Standard Room Size/Dimension	Lab size with capacity to accommodate a group of 40 students for class XI & XII. Must have a working area of 36'x20' with 3'x3' circulation area, as per CBSE norms. It should be attached with teacher's preparation room on one side. There should also be a provision of store room of area 12'x10' on the other side of the working area. Working platform, of height 85cm from floor with 65cm width, should be constructed on both side of the room with granite top.
2.	Store	Store must have sufficient space to accommodate minimum two no. of steel almiraha two no. of map stands to accommodate the items, documents, stock registers and maps etc.
3.	Teacher's Room	For teacher to study and keep records, well equipped with furniture and inbuilt cup-board
4.	Power Supply	6 electrical points (at least two sockets with 5A output) for doing electrical experiments at a time and one LCD projector. Fixtures such as tube lights and fans should have a separate phase.

5.	Fire Extinguisher	Atleast one meant for all types of fires.
6.	Water Supply	Lab must have at least one water supply outlet and one wash basin
7.	Exhaust & Ventilators	Exhaust: - Min. two which can be increased as per volume of the lab. Ventilators: - Six for min. light.
8.	Flooring	Flooring should be of tiles or with Kota stone
9.	Interactive Board & Display Board	One interactive visual Board located as suitable height to be easily visible by the students. Four display Board for display of important circulars and other related data.
10.	Teacher Table & Chair	One teacher table with drawer and Formica top along with two chairs should be in the lab. These must be slightly higher in height than routine school furniture for better monitoring and demonstration.
11.	Personal Computer and Computer Table	One computer with latest configuration equipped with software for the syllabus as specified by CBSE for classes XI & XII a broadband connection, with printer and scanner for data collection, interpretation and GIS related practical.
12.	Mini Subject Library	Must be maintained so that students may refer to the books of their taste. Must include reference books, general magazines on Computers, notices of social science exhibitions.
13.	LCD Projector /smart box	These should be fixed in the lab for proper utilization.
14.	First Aid Kit	A first aid kit with burnol mild antiseptic cream.
15.	Air Conditioner	Air Conditioners with separate wiring/phase other than that of electrical points.
16.	Furniture	Following items are desired in a geography lab: - Teachers chair and office table of standard dimensions. - Computer table. - 40 tables size 2x2.5' - 40 plastic stools for students. - 4 display boards. - Map display stands.
17.	Tracing Table	Size 3'x2' with a height of 3.5' wooden framed.

18.	Essential equipments	-Topographical Maps -3 D models related to geography -Globes of different sizes -Compass -Charts of conventional signs and symbols -Weather equipment like thermometers, barometers, wind wane, rain gauges etc
19.	Essential Stationary items.	-Large size Geometry box for teachers for Drawing projection, latitudes, maps etc. on the Board. -Steel meter scale. -Drawing sheets of full size. - Drawing sheets for practical book size. -Lettering stencil sets. -Geometric instrument box for students. -Usual stationary material like pencil, eraser, sharpener for pencils, paper, alpins, stapler, and thumb pins, cello tapes etc.

(B) Usability/Usage

S. No.	Item/Facility	Specifications
1.	Practical	The Syllabi allocated should be divided judiciously term wise i.e. from July to 15th February for class XI and from April to 15th December for class XII. Practical and activities to be interlinked with syllabi.
2.	Conduct of Projects	Projects must emphasize creativity and originality. These must supplement the syllabi but must be slightly above the syllabi. A list of projects must be pre-planned judiciously and can be administered either individually or in groups as per the interest of the students. Students need to be guided time to time in completion of the work. One project in one subject for one session should be preferred. Project should be of investigatory or analytical in nature.
3.	Demonstrations	The Syllabi should be supplemented with demonstration/activities. Videos/ animations

		available on www.youtube.com can also give an additional edge to the teaching.
4.	Workshops/Seminars/Quiz	Workshops/Seminars/ Quiz should be conducted in the school.
5.	Social Science Exhibition	Vidyalaya level, cluster level, regional level, national level.

(C) MAINTENANCE/CLEANLINES

Keeping your lab functional

S. No.	Item/Facility	Specifications
1.	Maintenance of Equipment	The equipment must be maintained functional and necessary repair work whenever needed must be carried out periodically.
2.	Fire extinguisher	Must be refilled every year and pressure gauge should be checked periodically.
3.	Electrical Maintenance	Power points should be checked for any naked wire, non functionality, switch failure etc. Check the tube lights, ceiling fan and exhaust fans regularly.
4.	Stock Verification	Must be regularly done at the end of the year of academic session
5.	Condemnation	The equipment that becomes non functional due to routine wear and tear or with time should be condemned yearly.
6.	Procurement	The equipment condemned, needed as per changes in syllabi must be procured immediately.
7	Cleanliness	The items available in the lab need daily regular cleaning and dusting.

ANNEXURE

APPRATAUS AND LAB EQUIPMENT

<u>S.NO.</u>	<u>NAME OF ITEMS (NON-CONSUMABLE)</u>	<u>LIFE</u>	<u>QUANTITY</u>
1	Sprit level	3yrs	
2	Trough compass	3yrs	
3	Survey umbrella	3yrs	
4	Measuring tape	2yrs	

5	Magnetic compass	3yrs	
6	3 D physiographic models of Earth's interior/structure/earthquake waves/ focus\ epicenter	3yrs	
7	3 D physiographic models of different types of folding and faulting	3yrs	
8	3 D physiographic models of stages of river and Associated landforms like waterfall, gorges, V-shaped valleys, plains, ox-bow lakes, delta etc.	3yrs	
9	3 D physiographic models of Aeolian process and Associated landforms like dunes, castles, natural Bridges etc	3yrs	
10	3 D physiographic models of glacier process and Landforms like before and after glaciations, cwms, cirques, corrie, eskers etc.	3yrs	
11	3 D physiographic models of landforms and Features associated with underground water Like spring, wells, krst, topography, water table Etc.	3yrs	
12	3 D physiographic models of volcano and Associated landforms like cone, crater, lava flow, Vent, still, dyke etc	3yrs	
13	Hygrometer	3yrs	
14	Wind wane cum anemometer	3yrs	
15	Rain gauges	3yrs	
16	Max and Min Thermometer	3yrs	

APPRATUS AND LAB EQUIPMENT

<u>S.NO.</u>	<u>NAME OF ITEMS (CONSUMABLE)</u>	<u>LIFE</u>	<u>QUAN TITY</u>
1	Metre scale	2 yrs	
2	Geometric box big size(for teacher's use)	2 yrs	
3	Geometric box normal size(for students use)	2 yrs	
4	Parallel ruler	2 yrs	
5	Lettering set	2 yrs	
6	Stencil pencil, eraser etc.	1yrs	
7	Drawing instrument box	1yrs	
8	Topo Sheets No.s	1yrs	
9	Drawing material like pencil, eraser etc.	1yrs	
10	Field book	1yrs	
11	Charts of conventional signs and symbols	2 yrs	

12	Maps of world, India, States of India, different Continents and all syllabus related maps of our country and world	2 yrs	
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Proposed Layout



