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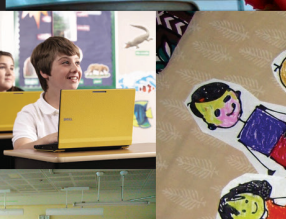

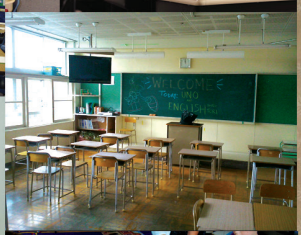
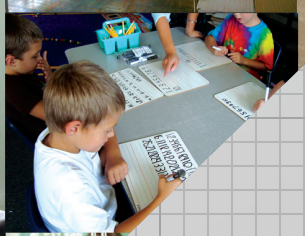


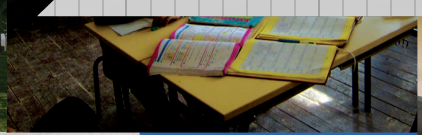



DESIGN GUIDELINES FOR SCHOOL FACILITIES NORMS AND STANDARDS

SPECIFIC GUIDELINES

VOLUME 2

REPUBLIKA E KOSOVES
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DESIGN GUIDELINES FOR SCHOOL FACILITIES NORMS AND STANDARDS

SPECIFIC GUIDELINES

VOLUME 2

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ANNEXES, TABLES AND ILLUSTRATIONS

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ABBREVIATIONS AND ACRONYMS

ACS	Average Class Size
CCTA	Council for Curriculum, Textbooks and Assessment
EMIS	Education Management Information System
EMP	Environmental Management Plan
EU	European Union
FFL	Finished Floor Level
GIS	Geographical Information System
GPS	Global Positioning System
ID	Infrastructure Department
IDEP	Institutional Development for Education Project
IDA	International Development Agency
MDG	Municipal Education Development Grant
MED	Municipal Education Directorate
MESP	Ministry of Environment and Spatial Planning
MEST	Ministry of Education, Science and Technology
NGO	Non Government Organization
OECD	Organization for Economic and Cooperation Development
PTR	Pupil-Teacher Ratio
SBD	Standard Bidding Documents
SDG	School Development Grant
TOR	Terms of Reference
UNMIK	United Nations Interim Administration Mission in Kosovo
VET	Vocational Education and Training

INDEX CODES

NIVELET E ARSIMIT:

PP	Pre-Primary Education
PE	Primary Education
PS/PE	Pre-Primary and Primary Education
BE	Basic Education
LSC	Lower Secondary Education
USC	Upper Secondary Education
L/USC	Lower and Upper Secondary Education
GL	General (all levels)

TYPE OF SPECIFICATION		CODE	NORM OR SPECIFICATION
0	References	**REF**	Lists of annexes, tables, figures, abbreviations
1	Introduction	**INT**	
2	Design concepts	**DC**	Space programming Space design Accessibility
3	General principles	**GP**	Technical norms Safety and security Comfort parameters Furniture and equipment
4	Specific parameters	**SP**	Linked to site features and constraints Linked to environment Linked to climate
5	Guidelines for Internal Spaces	**IS**	Teaching spaces Administration facilities Ancillary spaces
6	Guidelines for External Spaces	**ES**	Playgrounds and open shelters Sport areas External pathways, roads, parking, plantations

FOREWORD OF VOLUME 2

As already mentioned in the Introduction of the first volume (Chapter 1 paragraph 1.3.2), the present guidelines have been distributed in two volumes, each of which corresponds to a different level of education:

(i) General data and guidelines distributed in chapters 2, 3 and 3 of the first volume:
- Design concepts; and
- General norms.

(ii) Site specific characteristics, detailed data and guidelines in chapters 1 and 5 of the second volume:
- Site specific parameters;
- Guidelines for internal spaces; and
- Guidelines for external spaces.

In this second volume, the designers will find:

(i) the main text with specifications, requirements, functional diagrams and sketches;

(ii) the corresponding accommodation schedules with quantities and surface areas corresponding to each standard school in annexes of the first volume; and

(iii) related summary technical sheets given in the annexes of the present volume. The references to these annexes are given in the text at the end of each paragraph.

1

1. SITE SPECIFIC PARAMETERS

While guidelines set out in the previous chapter apply generally to all schools it must be reminded that there is no single design solution. Actually, each design depends upon specific local conditions including those concerning (i) the **school site** including geographic characteristics, location and access of the school site, size and shape of the site; (ii) the **weather conditions** such as temperature, relative humidity, rainfall and direction of prevailing winds and (iii) the **environmental conditions** such as surrounding activities, proximity of neighbouring buildings, existing utility networks, fences and trees and numerous other specific factors.

1.1 SCHOOL SITE

The site selection for new schools shall be based upon several different criteria, depending on the concerned geographic zone (urban or rural), the projected teaching level, the estimated initial student capacity and its future extensions.

In addition, the intrinsic qualities of the site and its surrounding environment should be noted, recorded and assessed, such as views out, proximity of neighboring developments existing or potential, topsoil quality, established vegetation that may be usefully preserved and evidence of surface water drainage routes besides the topography which will be recorded by the survey. The site and its surroundings should be fully recorded photographically.

1.1.1 TOPOGRAPHIC PARAMETERS

The Designer's team must make a leveled survey of the site and, even if the survey information already exists, this must be verified. The main topographic parameters and criteria to be evaluated are: (i) boundaries that should be marked clearly; (ii) the site spot heights and contours with all natural features that should be compatible with school activities; (iii) the total area of the site taking into account the areas unsuitable for building or outdoor games use due to gradient or other various reasons; and (iv) existing buildings on the site that need to be plotted on the site plan.

1.1.2 SOIL COMPONENTS AND CHARACTERISTICS

The main selection criteria concerning the soil components are related to the soil resistance and the type of soil. These elements can be obtain with the geological maps of the concerned region, but detailed characteristics of the site can only be obtained through soil tests and analysis. Upon selecting the site, the planners and the client should avoid all sites with large back fill, former carries, swampy zones, seismic areas, heavy erosion and landslides.

The respective engineer will require trial holes or bores to establish load bearing capacities and sub-soil conditions over the site and particularly in areas where the buildings will be located. He will make sure that the structural stability and load-bearing capacity of the

foundations can be obtained without heavy additional costs. For existing buildings the structural engineer must carry out an analysis to determine structural soundness and decide what further loads can be carried for a vertical extension.

1.2 ENVIRONMENT

1.2.1 ENVIRONMENTAL IMPACTS

The school site selection criteria are usually guided by the availability of land and town planning regulations. However the criteria concerning the environmental issues and the site neighborhood are as follows:

(a) **Urban areas**

In urban or sub-urban areas, the site selection should take into account the following criteria: (i) neighboring activities shall not produce noise, smoke or odors that could endanger the occupants' health; (ii) the main traffic axes (road, train, airport...) should be far enough from the school site; and (iii) as far as possible there should be existing public infrastructure in the vicinity.

(b) **Rural areas**

The school sites will be selected on the basis of the following environmental criteria: (i) the local topography allow for an easy and acceptable access to the site; (ii) there is a road in the area allowing for vehicle access; (iii) there is a possibility for water supply in the vicinity (network, well, bore well, spring); and (iv) there are other public equipments and/or inhabited areas in the neighborhood.

1.2.2 MITIGATION MEASURES

(a) **Before construction**

During the project preparation the designer and the beneficiary should:

- Ensure that a physical notice (board) is erected, so that the public and neighboring landowners can clearly see the Municipality's and/or MEST's intention to develop and if there is to be any dispute then it is expressed at the earliest opportunity and dealt with.
- Make a quick preliminary assessment of the suitability of the site for the intended development, having regard to the Criteria for site suitability agreed with the MEST's respective department. These Criteria are the only agreed grounds for a Design Team to reject a site as "unsuitable".
- The availability, position and reliability of utility services should be established, including electricity, water supply and position of a main sewer for a possible connection. It should be noted that there is a minimum clear distance of 50 meters horizontally stipulated between high tension power lines and school facilities, and minimum horizontal distance of 100 meters between radiating premises and school premises.

(b) **During school construction**

The inclusion of mitigation measures in the contractors' obligations and a precise mitigation plan will help minimizing most of the environmental issues that may be raised during the construction (dust, wastes, chemicals, noise....etc.). However, since these impacts and measures are not directly linked with the building design, this phase is not treated in the present guidelines.

(c) **During the school operation**

During the school operation phase, measures to be taken to preserve the school natural environment are mainly related to the preservation of resources and to

the waste management.

The present guidelines are only dealing with issues that are linked with the programming and the designing of school facilities. Other environmental issues are only mentioned as references.

(i) **Energy conservation**.

To save electrical power, some measures need to be considered by designers and school managers. These include:

- maximum use of natural light in teaching rooms by designing high ceilings and windows;
- office equipment is as energy efficient as possible, and that energy-saving options are available with respect to the purchase of new photocopiers, kilns, security lights, heaters and coolers;
- energy conservation, focus on renewable energy, and reduction in greenhouse gas emissions;
- illumination levels must be appropriate to the tasks being performed. Schools should maximize natural lighting, install daylight or movement sensors, use power-saving bulbs and switch off lighting not in use.

(ii) **Water resource conservation:**

Water resources are scarce and expensive. It is therefore necessary for designers to :

- investigate and envisage water conservation options;
- propose the use of rain waters for toilet flushes, garden watering and washing of facilities. This system would imply a double supply network and the sufficient storage in underground water tanks and/or water tanks with pumps;
- insist on the setting up of a maintenance system (including sensitization campaigns among students and teachers) that will drastically decrease water wastes due to leakages, especially with toilet flushes.

(iii) **Solid waste management and recycling**

The solid wastes of schools must be managed, treated and possibly recycled with careful respect to the environment. The recycling of papers and cartons, the most important of the school solid wastes, should be a priority. The designer will have to:

- organize and provide facilities for collection, storage disposal and recycling in order to minimize litter on the campus;
- provide sufficient storage for solid wastes (possibly a concrete slab surrounded by protection walls and wire mesh), with closed trash cans to avoid bad odors and waste scattering by wind or animals;
- envisage the construction / installation of an incinerator in such locations where public waste collection services do not operate;

Once they are collected and stored, these wastes can follow one or several of the three following options: be recycled (sorting out) or incinerated or transported to an authorized dump area.

(iv) **Special waste management**

The teaching of chemistry and biology is producing important wastes with risks of accidents (see Volume 1, paragraph 3.3.2) that need to be assessed and treated in order to provide mitigation measures for the students' safety and the school environment safeguard. In school labs, with proper treatment most of the chemical wastes can be rejected in sinks if the concerned products are not toxic:

- Diluted acid or basic solutions can be disposed in sinks after a new dilution ;
- Concentrated acid or basic solutions must be safely stored, treated and neutralized before disposal in a sink.

(v) **Liquid waste management**

(CF. VOLUME 1 PARAGRAPH 3.3.3. ABOUT SEWAGE NETWORKS, SEPTIC TANKS AND SOAK PITS)

1.3 CLIMATE

1.3.1 GENERAL CLIMATIC CONDITIONS

(CF. VOLUME 1 PARA. 3.2.1)

The notion of thermal comfort (or climatic comfort) is very subjective and varies largely from one individual to the other and even from one country to the other. It is therefore difficult for designers and searchers to quantify this notion in function of comfort criteria. However, the various researches to find a solution to quantify these comfort criteria are based on the feeling of comfort which is felt when there is a balance between the heat stored in the body and the heat loss.

The tests and research studies, mentioned above, have shown that the heat gain or loss is the result of the changes in the air characteristics including evaporation, convection, conduction and radiance. Moreover, they show that the evaporation and convection are modified by humidity and air movements in the building that are difficult to control without mechanical ventilation or air conditioning.

The improvement of the thermal comfort in school facilities can therefore be obtained with (i) the increase or decrease of the air movement which is rather difficult to obtain (except with fans); and (ii) the control of the sun radiations which is easier to obtain with a proper orientation of the building, and/or the addition of canopies, overhangs or sun shields.

1.3.2 CLIMATIC ZONES

As already mentioned in paragraph 3.2.1 (b), Kosovo is divided in three distinct climatic zones.

(i) Kosovo climate which is influenced by continental air masses and has cold winters.

(ii) Dukagjini climate which is influenced very much by the hot air masses and has medium temperatures and heavy snowfalls during winter.

(iii) Mountains and forest climate is characterized by a typical forest clime which is associated with heavy rain falls, summers that are very short and cold and winters that are cold and with a lot of snow.

Due to heavy rains and snow falls in winter, the traditional construction in Kosovo includes buildings with double or four pitch roofs. However, high rise buildings in cities and suburbs can be seen with flat roofs or single pitch roofs.

2

2. INTERIOR SPACES FOR ELEMENTARY SCHOOLS

2.1 PRE-PRIMARY LEVEL

Children of the pre-primary level are taught to develop basic skills and knowledge through creative play and social interaction, as well as sometimes formal lessons. They attend this level to learn to communicate, play, and interact with others appropriately. For children who previously have spent most of their time at home, the pre-primary class may serve the purpose of helping them adjust to being apart from their parents without anxiety. It may be their first opportunity to play and interact with a consistent group of children on a regular basis.

2.1.1 CLASSROOM AND VERANDA

(SEE V2 ANNEX 01 SHEET U01 AND R01)

(a) Activities

In the play areas, teachers are providing various materials and activities to motivate the children to learn the language and vocabulary of reading, mathematics and science, as well as that of music, art, and social behaviors.

The children's work and play have a broad range of cognitively stimulating activities leading up to a readiness for primary education. These activities may be spontaneous, exploratory, contrived or structured. They include the children's physical development through the manipulation of objects, materials and equipment, dancing, music, painting and other intellectual and social stimulations such as collective or individual games and learning of reading and calculation.

(b) Layout and capacity

The capacity of the inside play space is 24 children for low density or rural areas and 30 to 36 children for high density or urban areas and the suggested areas for these spaces are respectively 2.5 m2 and 2.3 m2 per student. Part of the play space may be a 3 or 4 meter wide covered veranda directly linked with the inside and outside play spaces.

Both inside and outside areas should comprise a large space directly accessible to one or several smaller spaces to allow children to choose their own activities and environments. However, these spaces must be designed to allow an easy supervision of classroom and play areas.

Such facilities are characterized should include spaces for display including: (i) spaces for children's art and graphics, located at the children's eye level together with a well-thought out and safe way of hanging art and displaying three-dimensional projects; and (ii) spaces for objects that children bring to share or that have special meaning

(c) Finishes

- Resilient, easily washable flooring;
- Painted plasterboard walls with pin-up boards;
- Ceilings made of acoustic tiles to give a low reverberation time;
- Colors and furnishings with neutral tones or mid-tone colors for backgrounds and ceilings to help

PREPRIMARY CLASSROOM
24 students

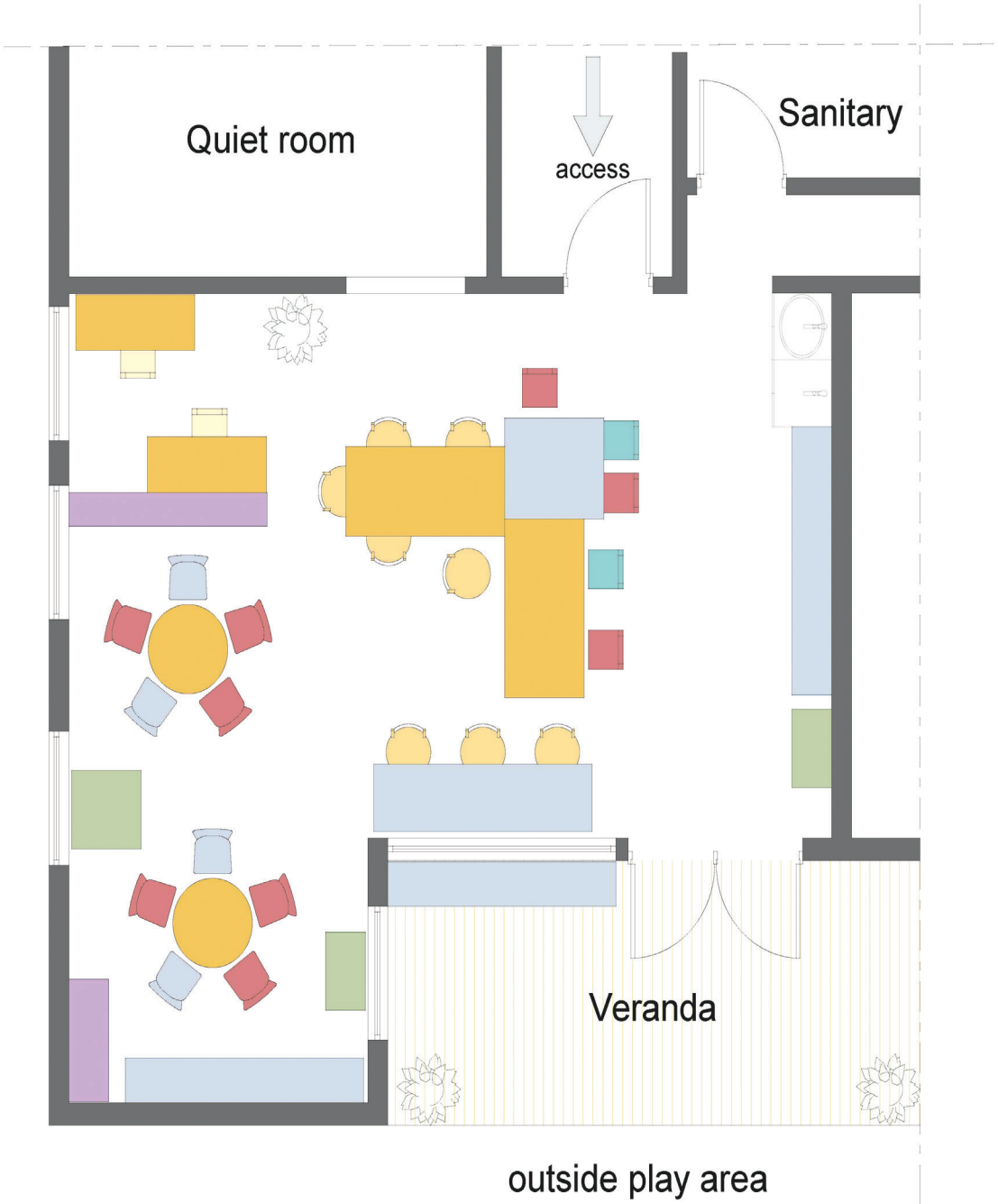


FIG. 2-2.1 EXAMPLE (I) - ARRANGEMENT OF CLASSROOM FOR PRE-PRIMARY LEVEL

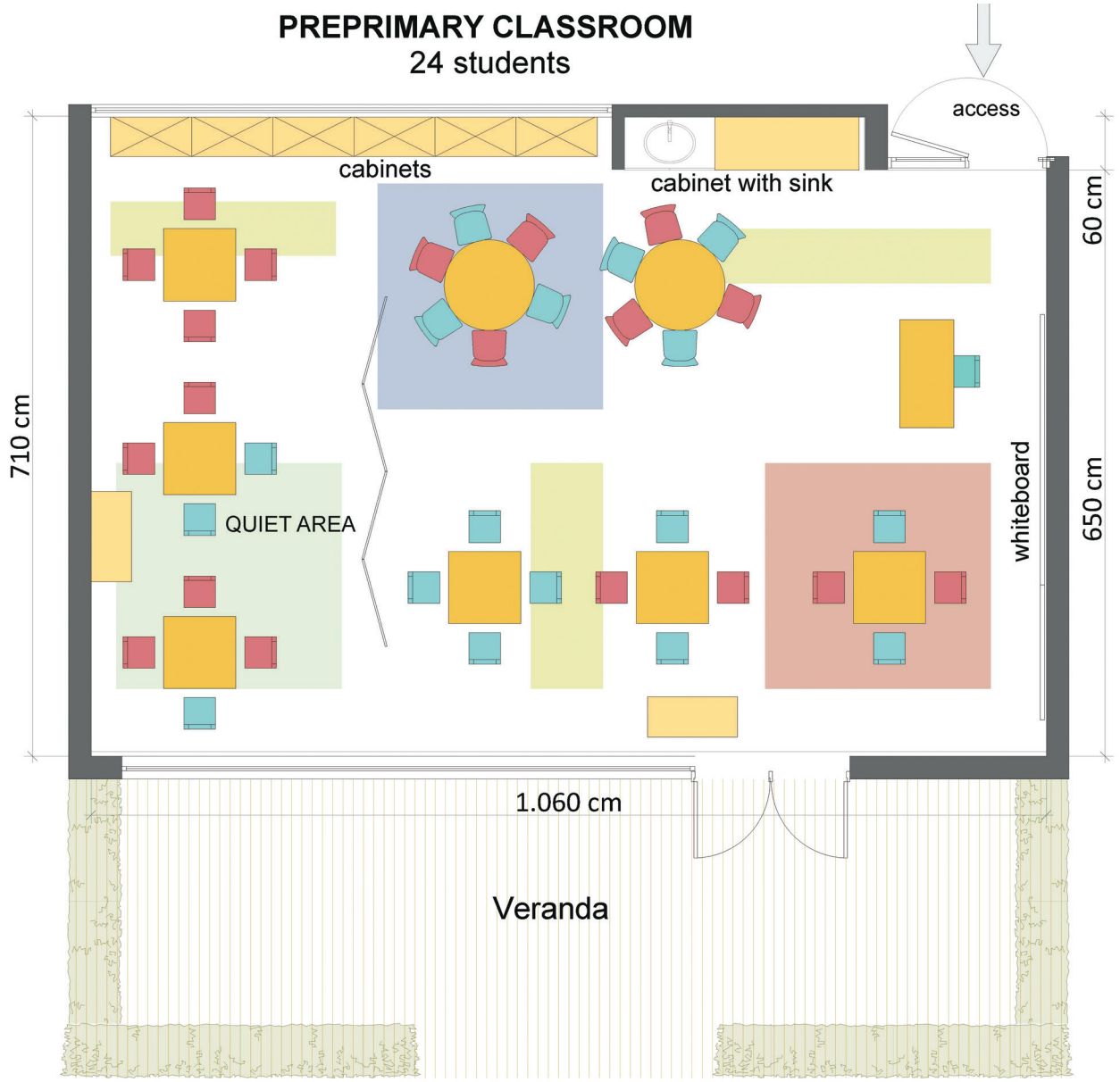


FIG. 2-2.1 EXAMPLE (II) - ARRANGEMENT OF CLASSROOM FOR PRE-PRIMARY LEVEL

reduce contrast and glare with sufficient reflection factor, with some warm colors for accents.

(d) Safety requirements

The **outdoor protection** of pre primary children will mainly consist of a fence (minimum 1.5 m height) to exclude the primary school students from the pre-primary play areas.

The protection against **internal hazards** will concern:

- furniture and fittings that should have rounded rather than angular corners, especially at children's head height; and
- steps that should match the size of the children
- electrical fittings should remain out of reach of the children.

(e) Equipment and furniture

The pre-primary furniture and equipment must be adapted to the children's body size. They also should be easily transportable by children so that they could move them around the inside and outside areas.

The **internal furniture and equipment** should include the following items: stackable chairs and stools, tables of different sizes, mobile trolleys, shelves, fixed and movable chalkboards and/or white boards, cupboards and bench seats.

The **external equipment** could include: sand pits, climbing frames, slides, various play structures and swings.

Example (i) - arrangement of classroom for pre-primary level

2.1.2 QUIET SPACE

(a) **Activities**

The quiet room shall be designed to allow children to have quiet time, away from the "crowd" of the play areas while still being able to be supervised. The children's activities in this area will mainly be quiet games, reading and reflection.

(b) **Layout and capacity**

The quiet space could be a separated room or a space included in the main room with a temporary separation from the main play areas by movable partitions or shelves. This space should have a maximum capacity of ten children.

(c) **Equipment and furniture**

[SAME FURNITURE AS FOR THE PRE-PRIMARY CLASSROOM (SEE PARA. 2.1.1 ABOVE)].

2.1.3 SANITARY FACILITIES

The children's toilet block will be located near in an easily accessible space, open to the teaching spaces. The size of all sanitary fittings shall be adapted to the children's size.

(i) WC:

- the minimum dimensions required for cubicles are 1.20 m x 0.90 m if the door is opening outside and 1.40 m x 0.90 m if the door opens inside;
- the minimum number of WC is one cubicle for 15 children (possibly, a block of 3 cubicles located next to two classes);
- WCs should be supplied with toilets adapted to the children's size.
- When possible, we suggest using atmospheric waters for laundry.

(ii) Washbasins:

- Located next to the WC cubicles and close to the main play areas;
- the minimum number of washbasins is one unit for 15 children;

- Installed to the appropriate height for the size of the children;
- Heavy duty fixtures and taps.
- When possible, we suggest using warm waters for sinks.

(iii) Comfort requirements:

- natural ventilation is required and mechanical ventilation is recommended;
- protection against excessive sun light is required to avoid heat and humidity.
- Minimum ceiling height of the room is 3 m

(iv) Technical requirements:

- Water control: self control taps and automatic flushing systems are recommended to limit water waste.
- Adequate floor drains, siphons, clean outs should be installed;
- Sanitary fixtures must be selected for their strong performance and their long-term reliability;
- Wall and floor finishes must be easily washable (up to 1.80 m);
- The facilities should be designed to allow an easy cleaning and maintenance.

2.2 PRIMARY LEVEL

2.2.1 CLASS ROOM

(SEE V2 ANNEX 01 SHEET U02 AND R02)

(a) Activities

- Teaching of general subjects as defined in the official curriculum such as mathematics, mother tongue and English, natural sciences, civic education and other subjects.
- Lectures, demonstrations, using sometimes audiovisual tools, oral and written exercises, corrections on the chalkboard....
- Working in groups, interactive courses...
- After teaching hours, the room may be utilized for extra-curriculum activities such as meetings, evening courses, socio cultural activities...

(b) Layout and capacity (see Fig 2-2.2 15)

The capacity of the classrooms is 24 students for low density or rural areas and 36 students for high density or urban areas and the suggested areas per student for these spaces are respectively 1.6 m2 and 1.9 m2 with the same space for each individual student in both cases.

The size, shape and flexibility of learning spaces are key factors in creating a positive learning environment. Cramped learning conditions, with spaces too small for the number of students and therefore unable to cope with a variety of teaching styles, are one of the main causes of concern about the design of the classrooms.

- Desks should not be too close together and should allow for sufficient room for students to move about;
- Space for movement includes: (i) circulation that allows the teacher to quickly approach any student no matter how a room is laid out; (ii) room to stand close behind every student to discuss their work; and (iii) personal space.

(c) Finishes

- Resilient flooring;
- Painted shock resistant plasterboard walls;
- Ceilings made of acoustic tiles to give a low reverberation time;
- Mid-tone colors to help reduce contrast and glare with sufficient reflection factor.

(d) Equipment and furniture

The two-student table unit with independent chairs would be preferably adopted. If the one-student table unit could be considered for upper secondary schools, rows of three students should be avoided.

- 15 to 18 two-student tables for urban areas and 12 two-student tables for rural areas or 30 to 36 one-student tables for urban areas;
- One chalkboard/whiteboard (possibly in three mobile panels) in front of the students with a clear minimum space of 2.0 m in front of the first row. If needed, a second chalkboard/whiteboard can be placed at the back of the students.
- Movable whiteboards ;
- Screen roll for audio-visual equipment could be located at the top of the chalkboard;
- Ceiling audio-visual equipment holder;
- One table and chair for teaching staff;
- One cupboard for pedagogical equipment and material;
- Hanger;
- When budget allows, it is recommended to provide cabinets for each student, placed in the corridor close to the class rooms (see example in figure 2-2.2).
- When budget allows, it is recommended to provide cabinets to store and present student works to be placed in the class room (see example in figure 2-2.2).

(e) Lighting

- Adequate number of windows to ensure sufficient amount of natural light. The total surface of windows should be a minimum 12 % of the floor surface;
- Avoid contrast and brightness coming directly from the sun;
- Provision of adequate artificial lighting, preferably fluorescent luminaries;

(f) Comfort requirements

- Orientation to the North and South is preferable to avoid direct sunlight on students;
- The room should be located away from noisy areas.

2.2.2 NATURAL SCIENCES LABORATORY

(SEE V2 ANNEX 01 SHEET U03 AND R03)

Each new primary school will receive a demonstration laboratory for the teaching of natural sciences with a small preparation/ storage room.

(a) Activities

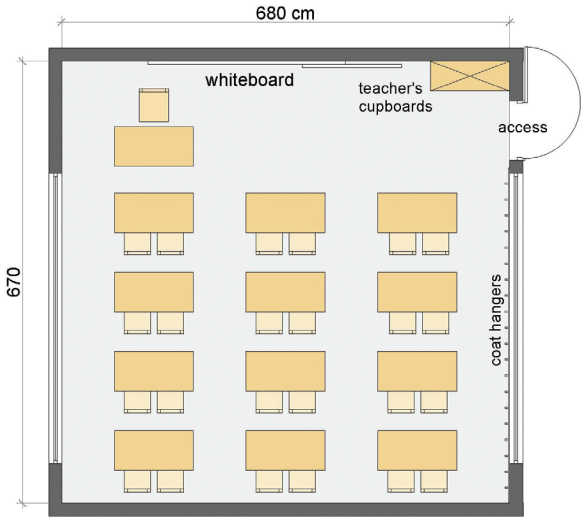
- Teaching of natural sciences as defined in the official curriculum;
- Lectures, demonstration courses, using sometimes audiovisual tools, oral and written exercises, corrections on the chalkboard... (24, 30 or 36 students).

(b) Layout and capacity

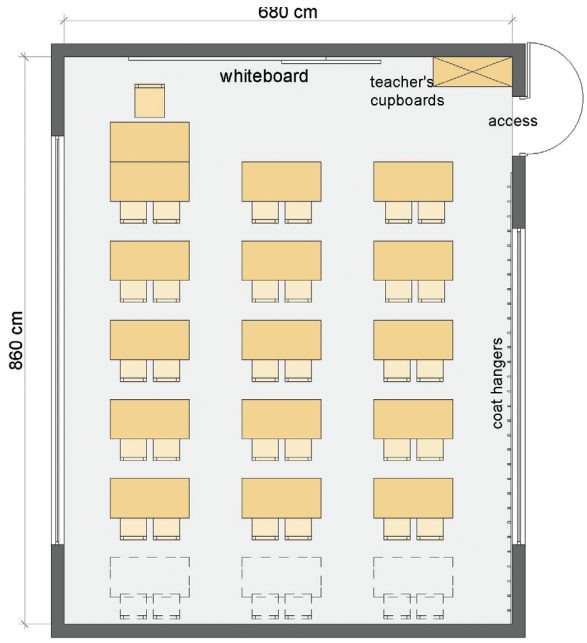
The Natural sciences laboratory will be designed for demonstration courses to full student groups of 36, 30 or 24 students;

The teacher's workbench should be equipped with a sink, outlets for water, gas, electricity and UPS. This workbench will be used by teachers for demonstrations and therefore, it should be placed in front of the chalkboard and have enough free space around it. Minimum size of the teacher's bench is 0.8 m x 2.0 m. Other requirements are concerning:

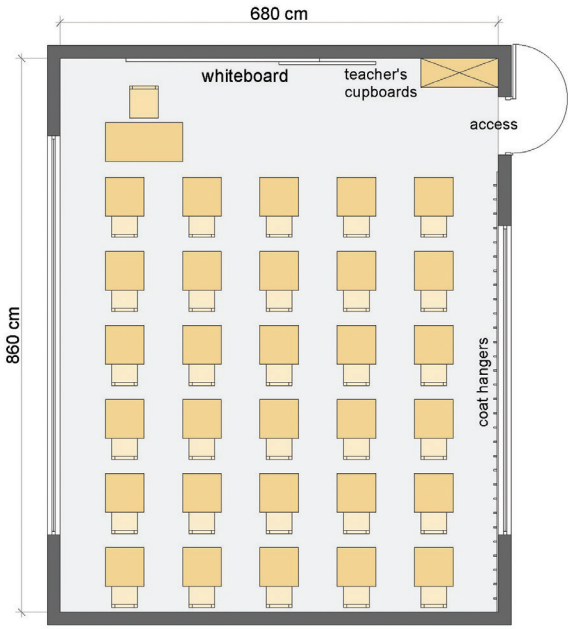
- **The chalkboard / whiteboard t**hat should be installed on the front wall and possibly with a second one on the back wall. Provision should be made for a projection screen;
- **The door** of science laboratories that should be 1.0 m wide and it should open outside the room.



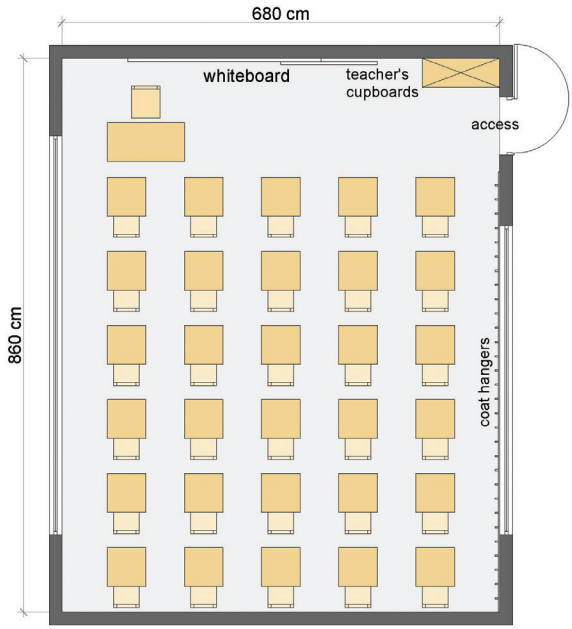
ORDINARY CLASSROOM
Frontal teaching, 24 students
Two-student table unit



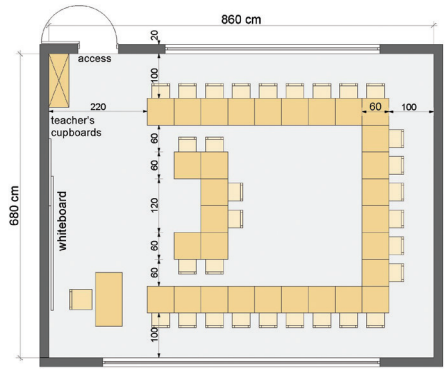
ORDINARY CLASSROOM
Frontal teaching, 30 - 36 students
Two-student table unit



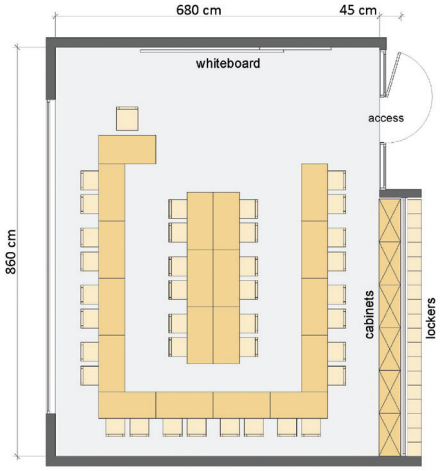
ORDINARY CLASSROOM
Two-student table unit,30 students



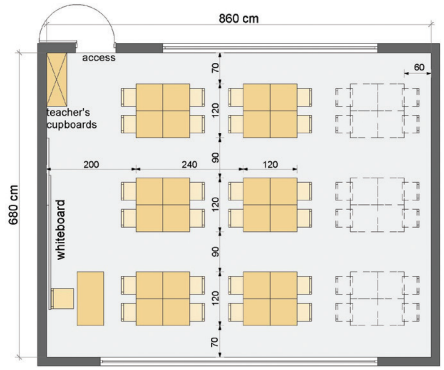
ORDINARY CLASSROOM
Two-student table unit,30 students



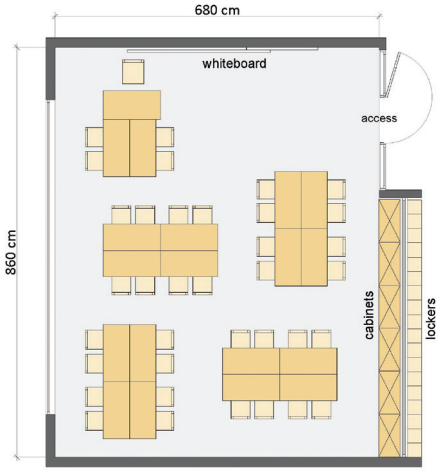
Workshop teaching
One-student table unit 24,30 and 36 students



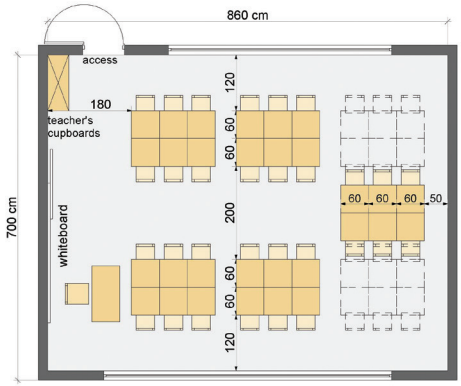
ORDINARY CLASSROOM
Workshop teaching, 30-36 students



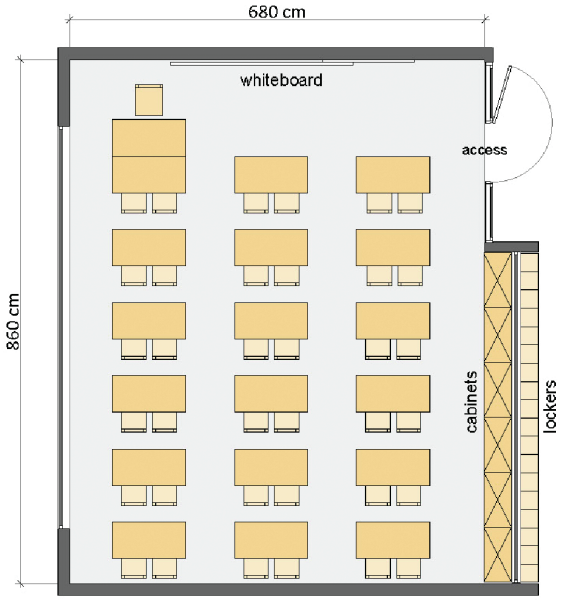
Teaching in small groups
One-student table unit 24,30 and 36 students



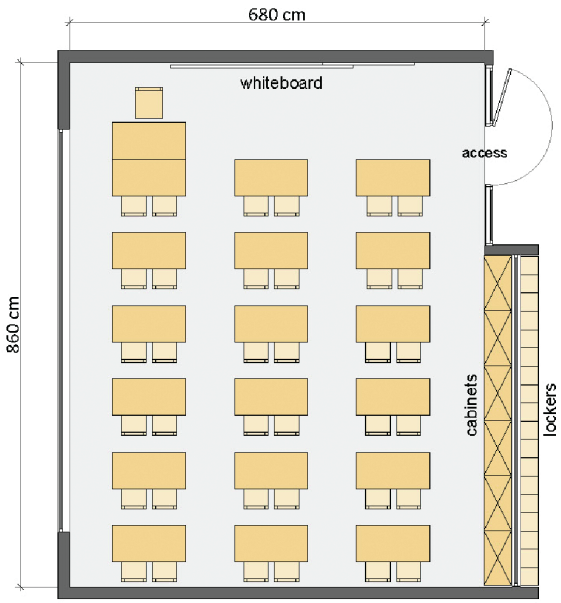
ORDINARY CLASSROOM
Teaching in small groups, 30-36 students



Teaching in small groups
One-student table unit 24,30 and 36 students



ORDINARY CLASSROOM
Frontal teaching, 30-36 students
Classroom with cabinets



ORDINARY CLASSROOM
Frontal teaching, 30-36 students
Classroom with cabinets

FIG. 2-2.2

A second door located at the back of the laboratory, of the same width, is advisable for the larger standards (36 students) to ensure evacuation out of the laboratory in case of emergency. Another door will be installed between the laboratory and the preparation/ storage room, close to the teacher's workbench.

- A **fume hood (optional)** capable of preventing the buildup of and decreasing exposure to toxic, flammable and explosive vapors and particulate resulting from laboratory analytical and testing procedures. It must provide good chemical resistance with excellent durability and resistant to heat fumes and vapors.

(c) Comfort requirements

- Good ventilation is particularly important for climatic comfort and for evacuation of odors, gases and fumes;
- Control of light with curtains, stores, shutters or shades is needed in order to allow precision work and experiments needing darkness (optical, electrical...);
- Height of window sills should be sufficient to prevent glare on workbenches located along the windows (and to allow for water taps on top of benches);
- Noise from numerous movements of students and shifting of furniture should be minimized with the help of smooth flooring and gum tips under the stool and table legs.
- Minimum ceiling height of the room is 3 meters.

(d) Safety requirements

Spaces where high risk material are stored or high risk activities take place (handling of flammable products, acids, toxic materials, sharp instruments and tools, etc.) require special attention to protect persons and goods from fire and accidents:

(i) The laboratory premises are high risk zones and should be protected **against fire**:

- Storage of combustible materials should be located away from students' desks;
- Fume evacuation should be provided by high or transom windows or by mechanical ventilation (in addition to the optional fume hood);
- Fire extinguishing equipment (mainly fire extinguishers) should be provided in the laboratory and the preparation room (in addition to the other equipments installed in the circulation areas);

(ii) Protection against the **risk of accident** is also an important consideration in laboratories:

- For easy maintenance, electrical network, water and gas conduits should be installed on walls, under benches with an efficient protection of built in sheathing.
- A minimum distance of 1.0 m should be maintained between water sources (taps) and electricity outlets;
- The electrical distribution board should be easily accessible, installed on the wall behind the teacher (or in the preparation room) and closed in a locked box. An independent shut off switch should be added with an emergency stop.
- Provide emergency lights to avoid accidents in case of power cuts during the teacher's experiments.

(e) Technical requirements

(i) Surface finishes

- Sink should be made of easily washable and durable material resistant to acids; and
- Workbench should be protected with countertops resisting to chemicals and shocks.

(ii) Conduits

- Avoid as much as possible built in conduits and allow easy access for maintenance and repair; and
- Discharge conduit should be ventilated, resistant to acid products and have a slope of 1 to 2% for easy evacuation.

(iii) Gas supply

- Portable gas cylinder is recommended: it is economic, secure and easy to install;
- Gas cylinder storage is only acceptable for two cylinders. It should be located in a special storage compartment located next to the preparation room, with its own ventilation and a fire rated door accessible from the corridor.

(iv) Electrical supply

- Wiring should be protected by a sheath;
- The supply system should allow for future extension of the power needs for new equipments.

(f) Furniture and equipment

Items specific to the natural sciences laboratory are:

- Ordinary double desks and chairs for students;
- Acid resistant storage cabinets;
- Trolley table;
- Fire extinguishers and first aid kit;
- Computer and related equipment;
- Multimedia equipment;
- Laboratory equipment for natural sciences teaching at primary level.

2.2.3 HEAD MASTER'S AND SECRETARY'S OFFICES

(a) Activities are including school management, administrative works, staff meetings, reception and meetings with parents, duplication of documents, classification and filing.

(b) Layout: The secretariat location should be directly in relation with the waiting area and the headmaster's office. The rooms included in this area are the headmaster's office, the secretariat with a small waiting area, a storage room with staff and visitors' toilets. In small primary schools located in low density or rural areas (satellite schools) there is no secretary and therefore there is the only one office.

(c) Security requirements: the offices require a good protection against thefts and vandalism including:

- Safe doors with high quality locks;
- Safe windows with high quality locks (in special cases, use of security grids is recommended);
- Window protections with shutters or metal grids;
- Closets, cabinets and cupboards with sturdy locks;

(d) Furniture and equipment:

- Computer, internet access, networking cable and/or wi-fi system, scanner, printer;
- Bookcases, filling cabinets, cupboards, shelves;
- Desks, armchairs, chairs,
- Telephone network (interior and exterior lines, fax machine);
- Photocopier

2.2.4 TEACHERS' ROOM

(a) **Activities**

The teacher's room should have sufficient space for the following activities:

(i) Educational work: preparation of courses, meetings...

(ii) Computers, internet connection, cable network and/or wifi system

(iii) Staff relaxation, rest, discussions;

(iv) Storing of teachers' personal belongings and

materials; and

(v) Having snacks

.

(b) **Layout and area**

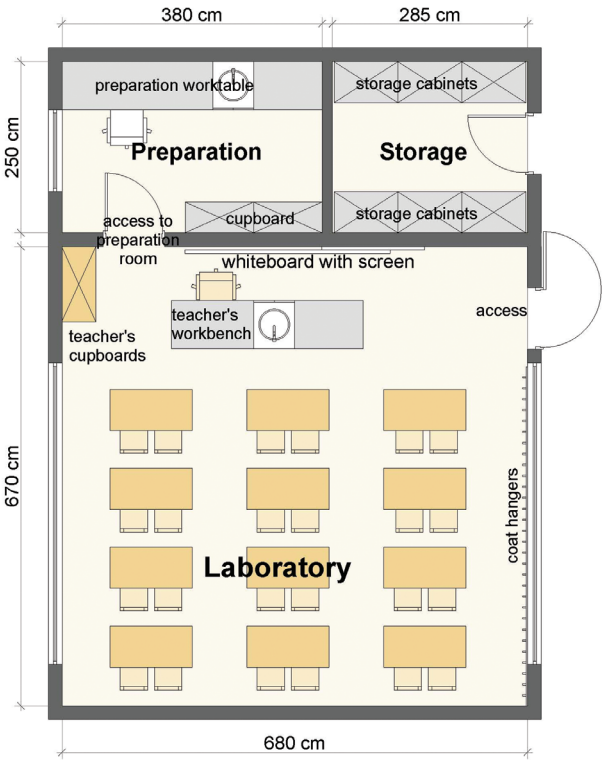
The total area for teachers' rooms varies according to the number of teachers. However, in the accommodation schedules, an average 2.5 m2 has been attributed per teacher.

The room is divided in two parts: (i) a workspace for preparing courses and lessons plans, and for discussions and meeting among teachers; (ii) the second area for storage of teachers' belongings and relaxation area.

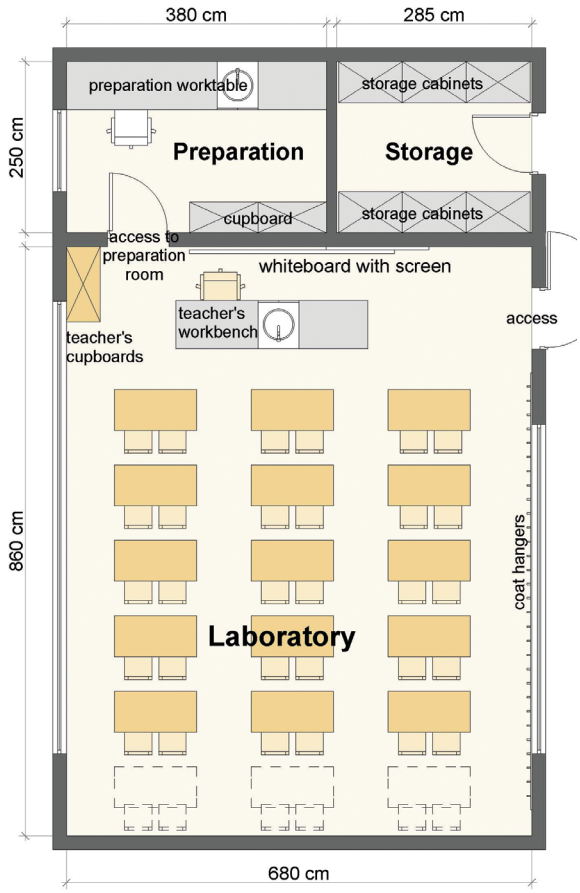
(c) **Location**

The location of the teachers' room should be near the

PRIMARY SCHOOL LABORATORY



PRIMARY SCHOOL LABORATORY
24 students



PRIMARY SCHOOL LABORATORY
30 and 36 students

Preparation room for one laboratory

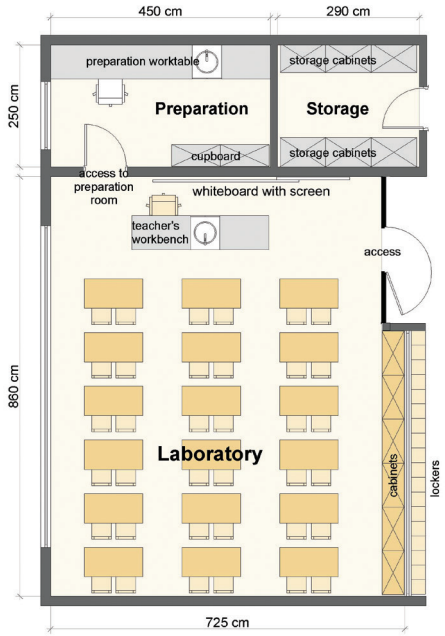


FIG. 2-2.3

PRIMARY SCHOOL LABORATORY
30 and 36 students
Model School in Prishtina

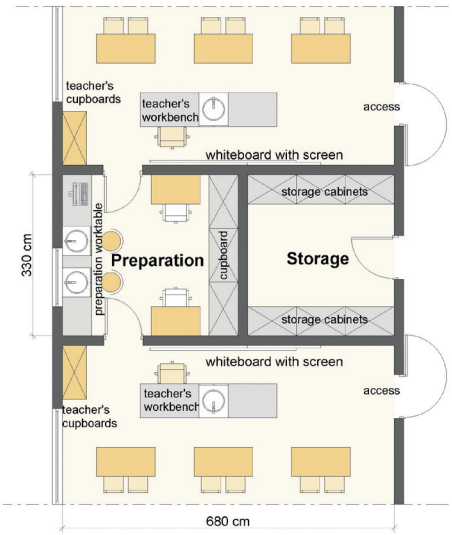


FIG. 2-2.4

PREPARATION ROOM
Two laboratories

headmaster's and secretary's offices with an easy access for students so that they may come and ask questions, take copies...etc.

(d) **Equipment and furniture**

The equipment and furniture includes chairs, writing tables, lockers, shelves, cupboards and notice boards.

2.2.5 LIBRARY

(SEE LIBRARY DIAGRAM FIG. 2-4.6 BELOW)

(a) Activities

The activities to be sheltered in the library and media center are: (i) reading individual works by students and teachers; (ii) educational activities in small groups (collective research and studies, book appreciation...); (iii) internet access; and (iv) loaning of books; (v) labeling, shelving, distribution and lending of books;

The school library space must also accommodate computer learning that is separated from quiet reading and other learning activities.

(b) Layout and capacities

(i) Design and lay out

Flexibility in design is essential to allow multiple activities and to accommodate future curriculum and technological changes. The design should also provide for easy librarian and teachers' supervision while recognizing efficient flow of traffic, to minimize disturbances. Control of exits is also important: the minimum number of exits required for safety and smooth traffic flow is recommended.

The library is an active, learning center and should be able to accommodate several instructional activities at the same time. Specific areas of the library would include:

- An entrance area with:
  - a reception area with sufficient space for bags and sacks;
  - small librarian office with a reception desk;
  - bibliographical and general references;
- The storage and shelving area:
  - book storage with shelving and processing workroom;
  - shelves for equipment;
  - display area;
- The reading area and media center
  - quiet study/recreational reading spaces for students and teachers;
  - audio-visual space (TV, DVD etc.)
  - computer/technology area;

(ii) . Location, capacity and size

- the library should be located on the ground floor, and oriented towards North;
- the number of books to be shelved in the store room will be defined by the MEST, on the basis of standard collections of school libraries;
- the capacity of the library and media center has been calculated on a fixed number of students of two classes (48 students in low density areas and 72 students in high density areas) attending the library in specific time and the unit surface area is 1.5 m2 per place;
- In small primary schools located in low density or rural areas (satellite schools) there is no library.

(c) Finishes

- floors: carpet, wooden flooring and/or resilient flooring;
- walls: painted plasterboard of shock resistant material;
- ceilings: acoustic tiles to give a low reverberation time;
- colour: warm, bright colours.

(d) Equipment and furniture

- shelves and stacks for books and periodic;
- pin table on the wall;
- librarian counter and shelves for brochures, flyers, forms...
- card index box (small drawers)
- the issues/periodic display desk carefully designed with hard-wearing surfaces, bright colours and scaled to suit the size of the students;
- comfortable low chairs and low tables adapted to the various students' sizes are appropriate for casual reading;
- computers for students, teachers and librarian, positioned to avoid glare;
- adjustable workstations with writing platforms for note-taking;
- IT equipment including scanner, printers...
- audiovisual equipment (DVD, LCD, TV, overhead projector, screen...etc).
- photocopier

(e) Security requirements

(i) **Theft and vandalism:** measures should be taken to protect both documents and equipment. This includes:

- only one access/ exit through a strong door with highly secure lock;
- easy surveillance of entrance and interior spaces;
- shelves for school bags deposit at the entrance;

(ii) **Protection of documents** should be ensured with:

- Insulation against wind and dust;
- Ventilation to counteract degrading effects of humidity;
- Protection against sunlight: if the North orientation is not possible, shutters, curtains and shades should be installed on windows;

2.2.6 MULTIPURPOSE HALL

(a) Activities

The multipurpose hall serves both curriculum activities and recreation activities and it plays a focal role for school and community meetings and gathering. It will shelter the following activities:

(i) Music and theater events, film projections and general assembly of the student body. These events will require a large central space with an audience seated in rows, facing a stage and/ or a screen;

(ii) Sports and games mainly in winter days, exhibitions, teaching in workshops. The events require a large, open, central space with the audience seated along the walls or circulating freely;

(iii) Meetings of the local community, presentation and performances and meetings for parents' and teachers' associations.

(b) Layout and capacity

(i) **Capacity and area:** the surface area has been calculated on a ratio of 0.50 M2 per student place, for the total school capacity, knowing that the whole school population will be gathered once or twice a year.

(ii) **Annexes:** the multipurpose hall may have annexes such as a kitchenette, a preparation room for teachers with toilet facilities and lockers, stores, a foyer (at the main entrance), an external canopy, a spectators' gallery...etc.

(iii) **Location**: several options are acceptable. For example, next to the main entrance would allow sharing reception facilities while locating it next to the playgrounds would allow the sharing of

FUCTIONAL DIAGRAM OF A MULTIPURPOSE HALL

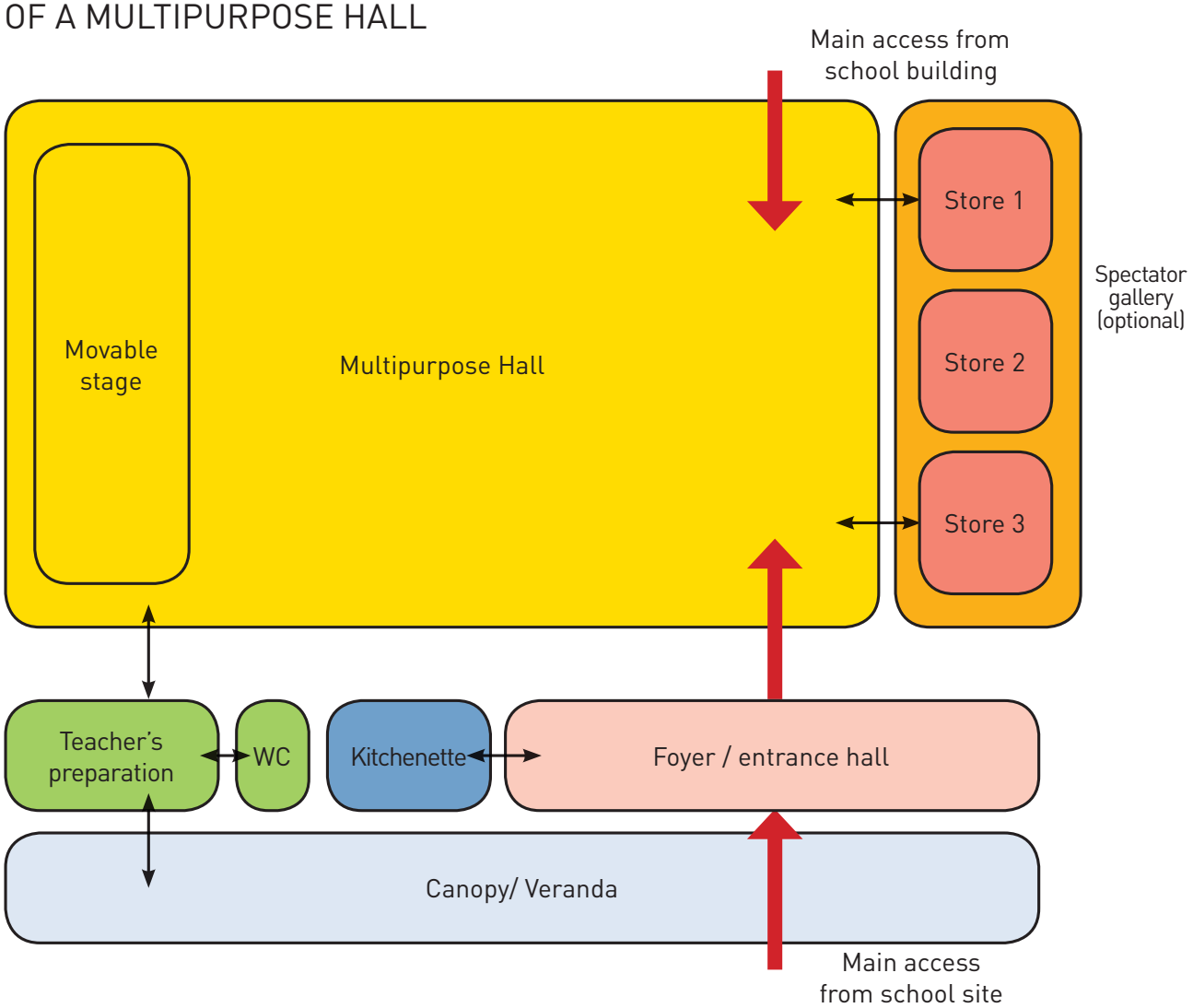


FIG 2-2.5

spot activities.

(iv) **Flexibility**: the designer will face a challenge to accommodate so many disparate activities. For this reason, the layout should be very flexible and ease the adaptation of several activities that could be simultaneous or following one after the other. The structure should be designed in such a way that no pillar or column will be needed in the middle of this space and the ceiling will be high enough to allow mini ball games.

(v) **Fixed equipment** should be avoided as much as possible. The stage for theater performance should be made of small manageable platform units that could be rearrange by students to be used for other activities.

(c) Comfort requirements

(i) **Acoustics**: many of the activities of the multipurpose room are noisy and therefore the space must be well soundproofed including echo suppression measures;

(ii) **Lighting**: the hall should offer the possibility of darkening for certain activities such as projections, theatre performances...etc.

(iii) **Ventilation**: continuous ventilation is essential with adequate heating of the hall.

(d) Finishes

(i) **floors:** resilient sheets, resilient foam-backed sheets;

(ii) **walls**: a variety of finishes to give acoustic variation i.e. painted plasterboard, timber panelling, timber slats with acoustic absorbent backing, plywood;

(iii) **ceilings**: shape and finish to obtain the desired acoustic effect such as painted plasterboard, acoustic tiles, timber slats with acoustic absorbent backing, plywood;

(iv) **colour**: warm or neutral tones and natural materials enlivened by bright fabrics and colour accents or murals;

(e) Furniture and equipment

Furniture needs can be affected by the range of functions. It includes: (i) comfortable upholstered stacking chairs and (ii) stages made using modular boxes or platform to provide flexibility.

The equipment, as a minimum would include: (i) a sound system; (ii) audiovisual equipment and screen, whiteboards, gymnastic mats and other sport equipment (see sports hall).

(f) Technical requirements

The multipurpose room must accommodate often contradictory requirement corresponding to different activities such as auditorium and gymnasium: (i) the gymnasium activities would require a large empty space for setting up sports equipment such as vaulting horses, wall bars, and folding mats as well as a store room for this equipment; (ii) the auditorium activities would require special acoustic treatment, dark curtains for projections, storage area for stackable chairs...

2.2.7 SANITARY FACILITIES

(a) Sanitary facilities for students

The student toilet block will be located within the educational blocks (e.g. one at the end of each floor) or in one large block combined with the covered play area and servicing both classrooms and playgrounds.

(i) **WC**:

- separate WC for boys and girls are required with separate accesses;
- the minimum dimensions required for cubicles are 1.40 m x 0.90 m if the door is opening

FUNCTIONAL DIAGRAM OF THE SANITARY FACILITIES

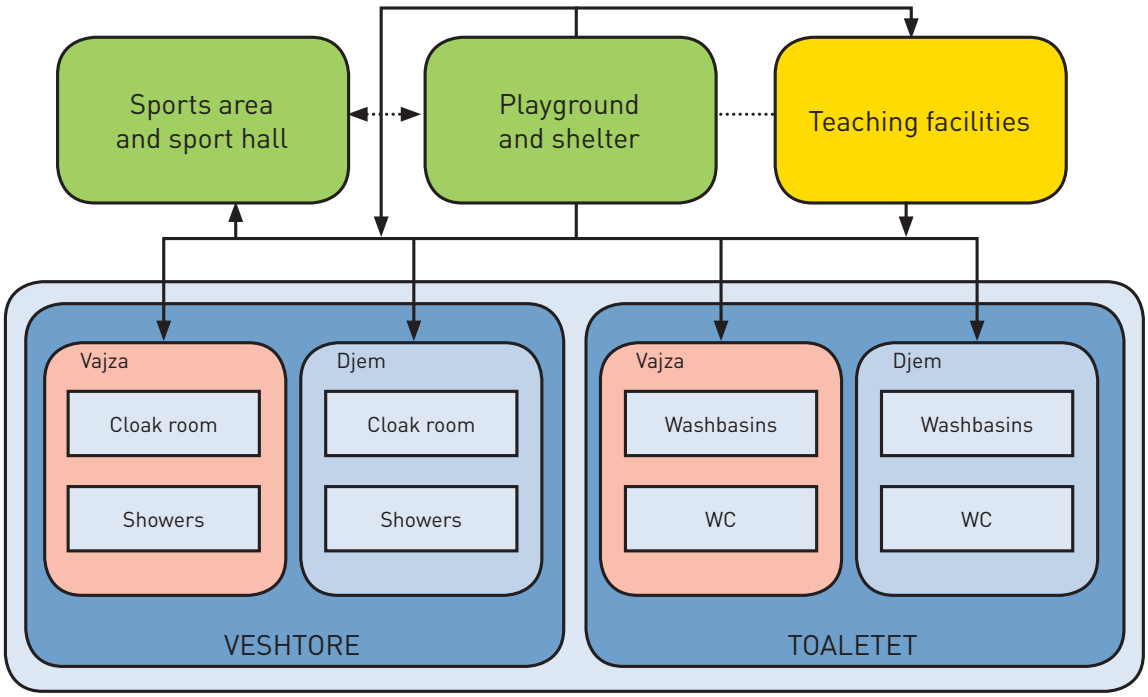


FIG. 2-2.6

outside and 1.50 m x 0.90 m if the door opens inside;

- the minimum number of WC is one cubicle for 30 students;
- the WC should be supplied with toilets adapted to the size of the children.
- In each school shall have, as minimum, a toilet cubicle with specific dimensions, access and equipment for disabled children (see volume one paragraph 3.8.1 and 3.8.2).
- When no budget is available, we recommend use of accumulated atmospheric water for rinsing

(ii) **Washbasins:**

- Located next to the WC cubicles;
- Installed to the appropriate height for the size of the children
- Heavy duty fixtures and taps.
- When budget is available, it is recommended to provide hot water.

(iii) **Comfort requirements:**

- natural ventilation is required and mechanical ventilation is recommended;
- protection against excessive sun light is required to avoid heat and humidity.
- Minimum height of the room is 3 meters.

(iv) **Technical requirements:**

- Water control: self control taps and automatic

flushing systems are recommended to limit water waste.

- Adequate floor drains, siphons, clean outs should be installed;
- Sanitary fixtures must be selected for their strong performance and their long-term reliability;
- Access zones to service risers and suspended ceilings are indispensable for maintenance and repairs;
- Wall and floor finishes must be easily washable (ceramic tiles for floors and porcelain tiles for walls (up to 2.20 m);
- The facilities should be designed to allow an easy cleaning and maintenance.

(b) **Sanitary facilities for administrative and teaching staff**

(i) **WC**:

- separate WC for men and women are required with separate accesses;
- the minimum dimensions required for cubicles are 1.60 m x 1.00 m ;
- the minimum number of WC is one cubicle for 15 persons;
- When no budget is available, we recommend use of accumulated atmospheric water for rinsing.

(ii) **Washbasins:**

- Located next to the WC cubicles;
- One washbasin for each cubicle;
- Mixer tap is recommended with hot and cold water.

(c) **Sanitary facilities for non teaching staff**

These facilities should be located near the administration bloc. They should be accessible through common circulation areas.

2.2.8 CIRCULATION AREAS

The circulation spaces include corridors, stairways, lobbies, galleries and entrance halls. They are used by students, staff and visitors for their communications between rooms, spaces, levels and buildings. In addition they are meant to be used (i) for the evacuation of facilities in case of fire or natural disasters and (ii) for the setting up of students' wardrobe lockers in areas where they will not restrict or obstruct the evacuation ways requested by the fire protection regulations. They should be designed, built and equipped with respect to functionality, safety and in accordance with the fire protection rules. To ease and decrease the school staff maintenance tasks, wall finishes of students' circulation should be resistant and washable up to 1.60 m.

The surface areas of circulations represent about 21 to 25% of the total net area of the school.

The width of each circulation space is calculated on the basis of the number of users with "passage units" of 0.60 m corresponding to the passage of 50 persons. However, the minimum width of school corridors is 1.60 m up to 100 persons (see table 3.0 below).

■ CIRCULATION MINIMUM WIDTH

Student number	Units	Width (m)
<50	1	1.60
50 to 100	2	1.60
100 to 200	3	1.80
200 to 300	4	2.40
300 to 400	5	3.00
400 to 500	6	3.60
500 to 600	7	4.20
600 to 700	8	4.80

TABLE 3.0

3

3. INTERIOR SPACES FOR BASIC EDUCATION SCHOOLS

In Kosovo, Education is compulsory from grade 1 to 9 (Basic Education) and school buildings are generally available for these grades although they are insufficient for the actual enrolment. To face this lack of facilities, the students are following their courses in two, three or even four shifts.

The **Basic Education Schools** are providing education from grade 0 to 9 for three levels of education:

(a) Pre-primary education: 1 year, grade 0, age 5;
(b) Primary education: 5 years, grade 1 to 5, age 6 to 10;
(c) Lower secondary education: 4 years, grade 6 to 9, age 11 to 14.

In the new schools, shifting system will be limited to a maximum two shifts and that the students of each level will remain in the same facilities. As a result, the new basic education schools will have specific teaching facilities for each level. However, some of the administration and service facilities will be shared by the primary and lower secondary level.

It is therefore proposed that, for new Basic Education Schools, the three levels of education be settled on the same sites with different facilities, except for administration offices, multipurpose hall, library, canteen and sport facilities (see examples of functional diagrams Fig. 2-3.1 to 2-3.3 below). In addition the design of such schools will be carried out in such a way that in the future, these associated schools can split and become totally separated with a minimum extension and changes in the design.

The present guidelines are proposing four Basic Education standard schools including two for low density areas and two other standard schools for high density areas (see table 3-1 below). The detailed list of facilities with the corresponding surface areas are shown in annex 2-01.

BASIC EDUCATION STANDARD SCHOOLS CLASSES AND STUDENTS

Level of education	Number of Grades	LOW DENSITY AREAS				HIGH DENSITY AREAS			
		2 Cycles		3 Cycles		3 Cycles		4 Cycles	
		Classes	Students	Classes	Students	Classes	Students	Classes	Students
Preprimary	1	2	48	3	72	3	108	4	144
Primary	5	10	240	15	360	15	540	20	720
Lower secondary	4	8	192	12	288	12	432	16	576
Total	10	20	480	30	720	30	1080	40	1440

TABLE 3.1

BASIC EDUCATION SCHOOL
FUNCTIONAL DIAGRAM HORIZONTAL LAY OUT

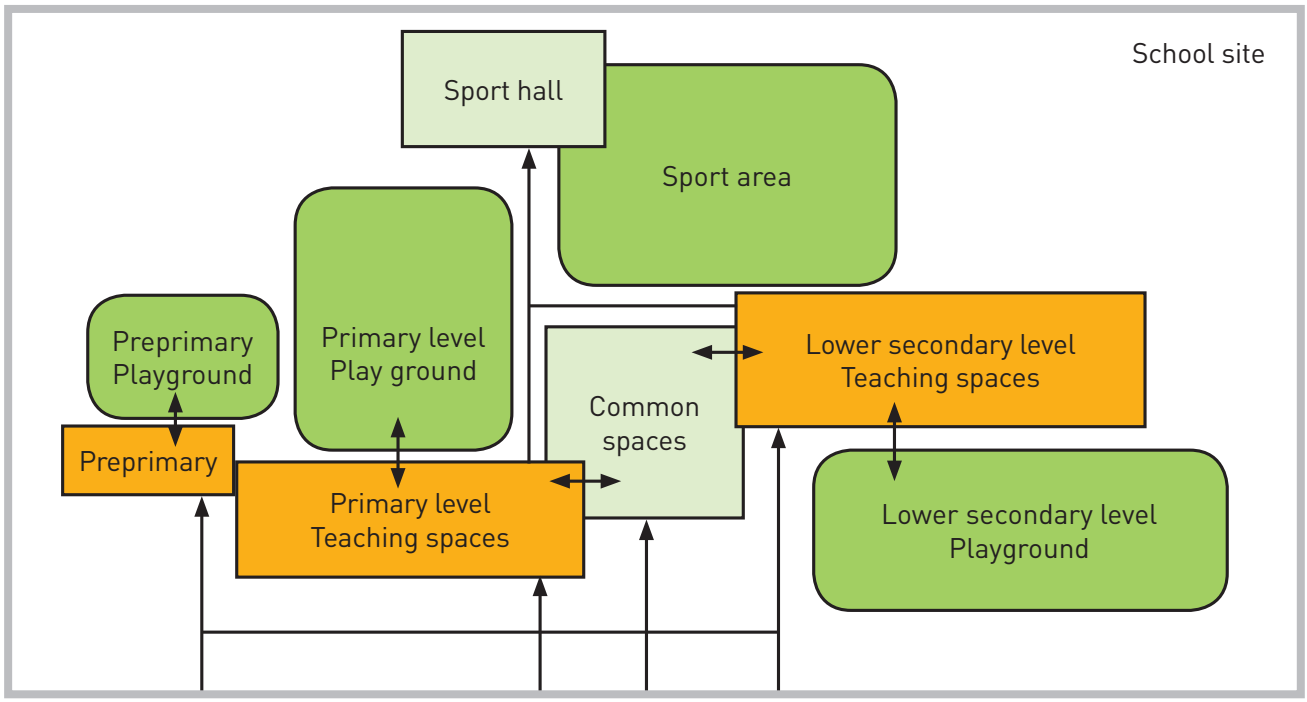
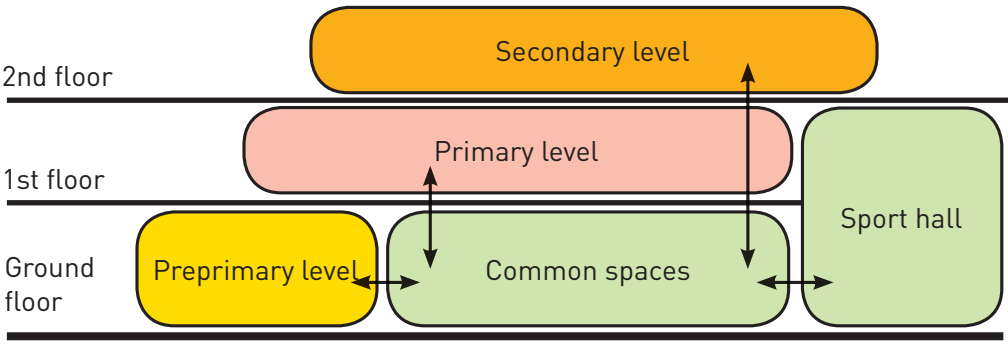


FIG. 2-3.1

All facilities of the Basic Education schools will have the same sizes and requirements than those described in chapter 2 for the preprimary and primary levels and in chapter 4 for the lower secondary levels. For common facilities, the designers will refer to the requirements described in chapter 5.

BASIC EDUCATION SCHOOL FUNCTIONAL DIAGRAM (1) VERTICAL LAYOUT



BASIC EDUCATION SCHOOL FUNCTIONAL DIAGRAM (2) VERTICAL LAYOUT

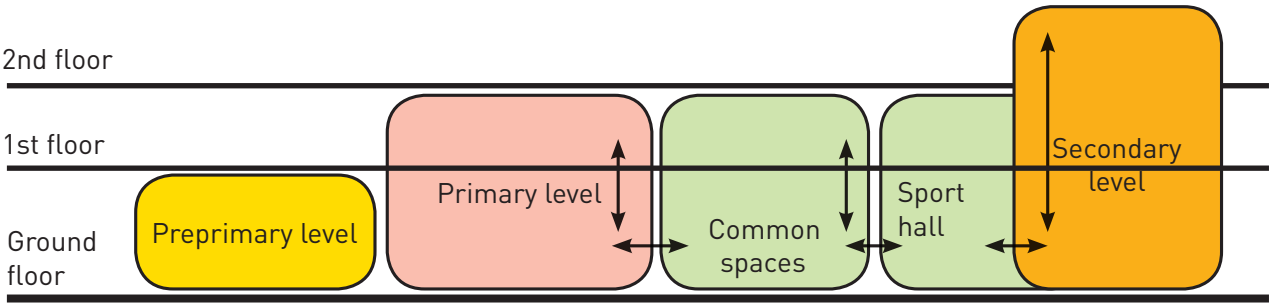


FIG. 2-3.2 AND 2-3.3

4

4. INTERIOR SPACES OF LOWER AND UPPER SECONDARY SCHOOLS

4.1 TEACHING SPACES

4.1.1 ORDINARY CLASSROOM

(SEE V2 ANNEX 02 SHEET U01 AND R01)

(a) Activities

- Teaching of general subjects as defined in the official curriculum such as languages, mathematics and other subjects.
- Lectures, demonstrations, using sometimes audiovisual tools, oral and written exercises, corrections on the chalkboard....
- Working in groups, interactive courses...
- After teaching hours, the room may be utilized for extra-curriculum activities such as conferences, meetings, evening courses, socio cultural activities...

(b) Layout and capacity

As for the lower and upper secondary level, the capacity of the classrooms is 24 children for low density or rural areas and 30 to 36 children for high density or urban areas and the suggested areas per student for these spaces are respectively 1.6 m2 and 1.9 m2 with the same space for each individual student in all three cases.

The size, shape and flexibility of learning spaces are key factors in creating a positive learning environment. Cramped learning conditions, with spaces too small for the number of students and therefore unable to cope with a variety of teaching styles, are one of the main causes of concern about the design of the classrooms.

- Desks should not be too close together and should allow for sufficient room for students to move about;
- Space for movement includes: (i) circulation that allows the teacher to quickly approach any student no matter how a room is laid out; (ii) room to stand close behind every student to discuss their work; and (iii) personal space.

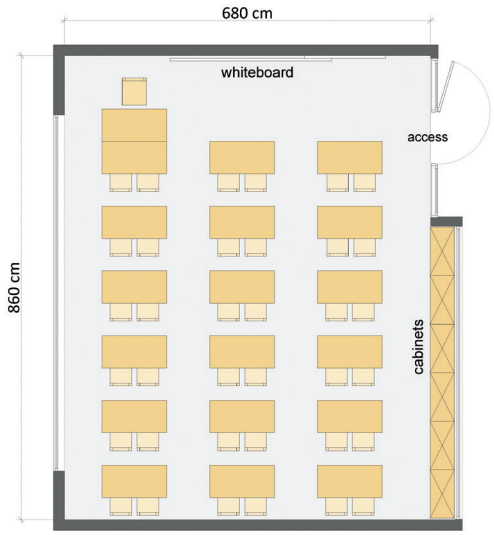
(c) Finishes

- Resilient flooring;
- Painted plasterboard shock resistant walls;
- Ceilings made of acoustic tiles to give a low reverberation time;
- Mid-tone colors to help reduce contrast and glare with sufficient reflection factor; and

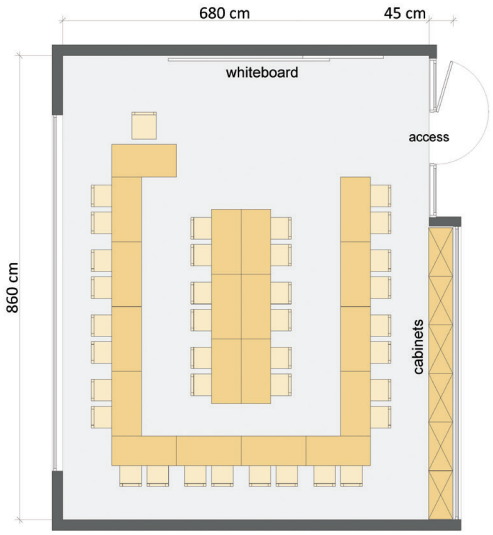
(d) Equipment and furniture

The two-student table unit with independent chairs would be preferably adopted. If the one-student table unit could be considered for upper secondary schools, rows of three students should be avoided.

- 18 two-student tables for urban areas and 12 two-student tables for rural areas;

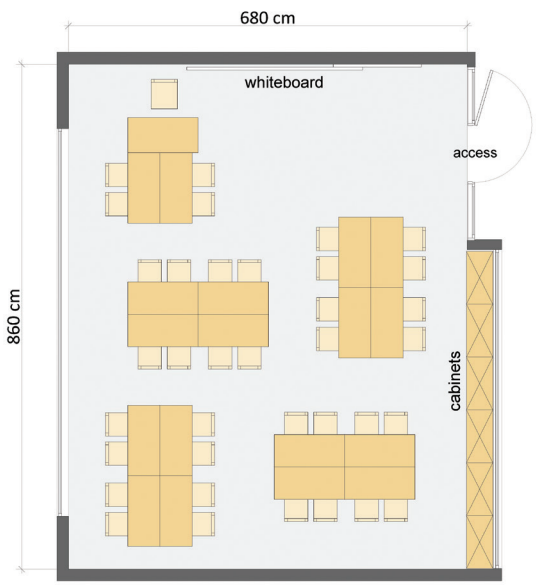


ORDINARY CLASSROOM
Frontal teaching, 30-36 students
Classroom with cabinets



ORDINARY CLASSROOM
Workshop teaching, 30-36 students

FIG. 2-4.1



ORDINARY CLASSROOM
Teaching in small groups, 30-36 students

- Possibly 36 one-student tables for upper secondary schools;
- One chalkboard (possibly in three mobile panels) in front of the students with a clear minimum space of 2.0 m in front of the first row. If needed, a second chalkboard can be placed at the back of the students.
- Screen roll for audio-visual equipment could be located at the top of the chalkboard;
- One table and chair for teaching staff;
- One cupboard for pedagogical equipment and material (or built-in cupboard); and
- Three cabinets for pedagogical equipment and materials.

(e) Lighting

- Adequate number of windows to ensure sufficient amount of natural light. The total surface of windows should be a minimum 12 % of the floor surface (para. 3.2.2 c. (i));
- Avoid contrast and brightness coming directly from the sun;
- Provision of adequate artificial lighting, preferably fluorescent luminaries (para. 3.2.2 c. (ii));

(f) Comfort requirements

- Orientation to the North and South is preferable to avoid direct sunlight on students;
- The room should be located away from noisy areas.

4.1.2 SPECIALIZED ROOMS

(SEE V2 ANNEX 02 SHEET U02 AND R02)

(a) Activities

The main activities of the specialized classroom are including:

- Teaching of specific subjects as defined in the official curriculum such as geography history and other subjects;
- Lectures, demonstrations, using sometimes audiovisual tools, oral and written exercises, corrections on the chalkboard....
- Working in groups, interactive courses...

(b) Lay out and capacity

The layout of the specialized classrooms is very similar to that of the ordinary classroom. However, additional clear space is given for the students to gather around the teacher's desk and a row of additional cupboards will be provided at the back of the classroom to store pedagogical materials such as maps, globes, charts...

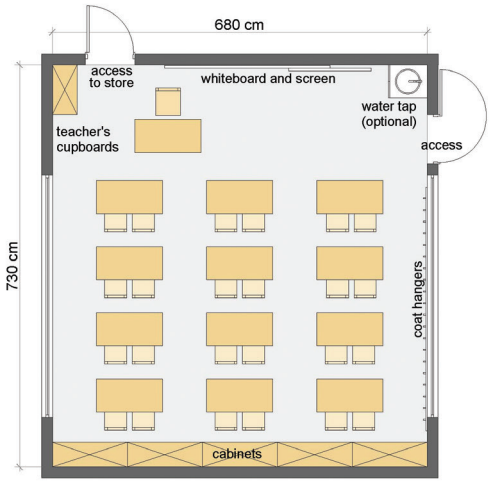
(c) Finishes

- Resilient flooring;
- Painted plasterboard shock resistant walls;
- Ceilings made of acoustic tiles to give a low reverberation time;
- Mid-tone colors to help reduce contrast and glare with sufficient reflection factor; and

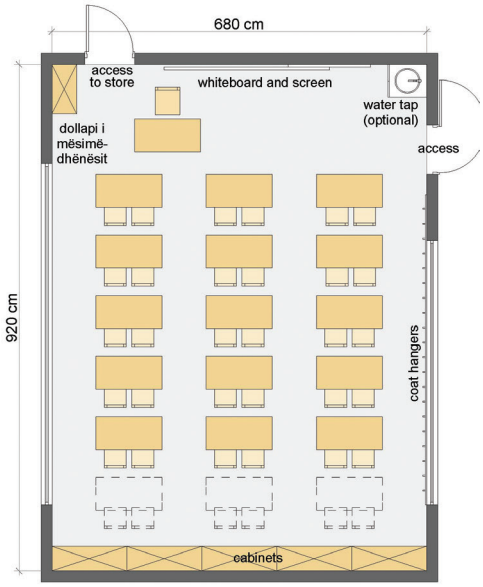
(d) Equipment and furniture

The two-student table unit with independent chairs would be preferably adopted. If the one-student table unit could be considered for upper secondary schools, rows of three students should be avoided.

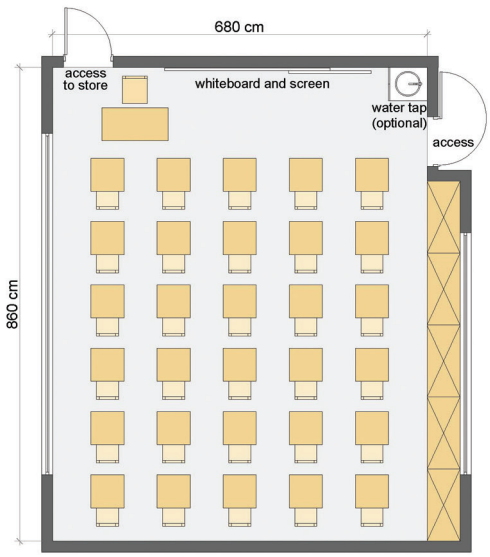
- 18 two-student tables for urban areas and 12 two-student tables for rural areas;
- Possibly 36 one-student tables for upper secondary schools;
- One chalkboard (possibly in three mobile panels) in front of the students with a clear minimum space of 2.0 m in front of the first row. If needed, a second chalkboard can be placed at the back of the students.
- Screen roll for audio-visual equipment could be located at the top of the chalkboard;
- One table and chair for teaching staff;



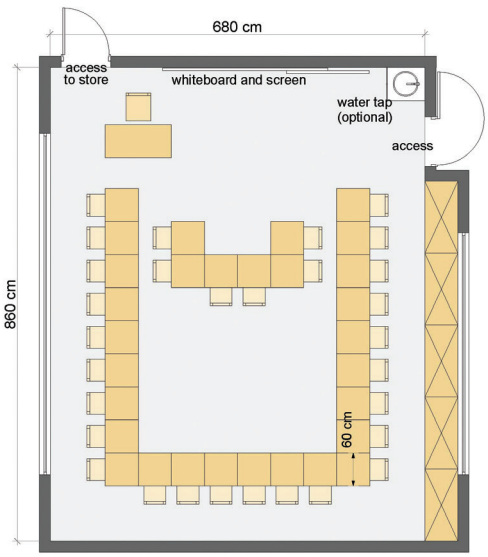
SPECIALIZED CLASSROOM
Two-student table unit, 24 students



SPECIALIZED CLASSROOM
Two-student table unit, 30 and 36 students



SPECIALIZED CLASSROOM
One-student table unit, 30 and36 students
Frontal teaching



SPECIALIZED CLASSROOM
One-student table unit, 30 and36 students
workshop teaching

FIG. 2-4.2

- One cupboard for pedagogical equipment and material (or built-in cupboard); and
  - Three cabinets for pedagogical equipment and materials..

(e) Lighting

- Adequate number of windows to ensure sufficient amount of natural light. The total surface of windows should be a minimum 12 % of the floor surface (para. 3.2.2 c. (i));
- Avoid contrast and brightness coming directly from the sun;
- Provision of adequate artificial lighting, preferably fluorescent luminaries (para. 3.2.2 c. (ii));

(f) Comfort requirements

- Orientation to the North and South is preferable to avoid direct sunlight on students;
- The room should be located away from noisy areas.

4.1.3 LANGUAGE LABORATORY

(SEE V2 ANNEX 02 SHEET U03 AND R03)

(a) **Activities**

The Language Laboratory contains special audio-visual equipment to help students learn foreign languages by listening to tapes or CDs, watching videos, recording themselves, etc. Students are provided with opportunities to practice by listening to the audio programs and watching the video clips.

Technically, a language lab is an instructional technology tool consisting of a source unit that can disseminate audio, audio-visual, and/or written materials to students at individual seats or carrels, with a wide variety of potential feedback mechanisms between the students and the teacher.

The advantages of such a system include:

- Proficiency in pronunciation, accent and language flow that can be attained in an effective manner;
- Facility for setting the lessons, batches and sessions in advance for the entire academic year;
- Students can automatically receive lessons from master source while logging in and can use these lessons for personal practice;
- Options for listening to a particular student independently and to listen either the student's voice or the original voice which is being practiced;
- Individual attention for each student, without disturbing the rest;
- While a confident student is free to move ahead of schedule, in consultation with the teacher, a weaker student may stay with a lesson till he or she feels sure.

4.1.4 SCIENCE LABORATORIES

(SEE V2 ANNEX 02 SHEET U04 AND R04)

The science department of the secondary schools comprises Sciences rooms, Laboratories and Preparation/ storage rooms all of which have the same technical and safety requirements.

(a) Activities

- Teaching of sciences subjects (physics, biology and chemistry) as defined in the official curriculum;
- Lectures, demonstration courses, using sometimes audiovisual tools, oral and written exercises, corrections on the chalkboard...
- Practical works in half groups (12 or 15 to 18 students).

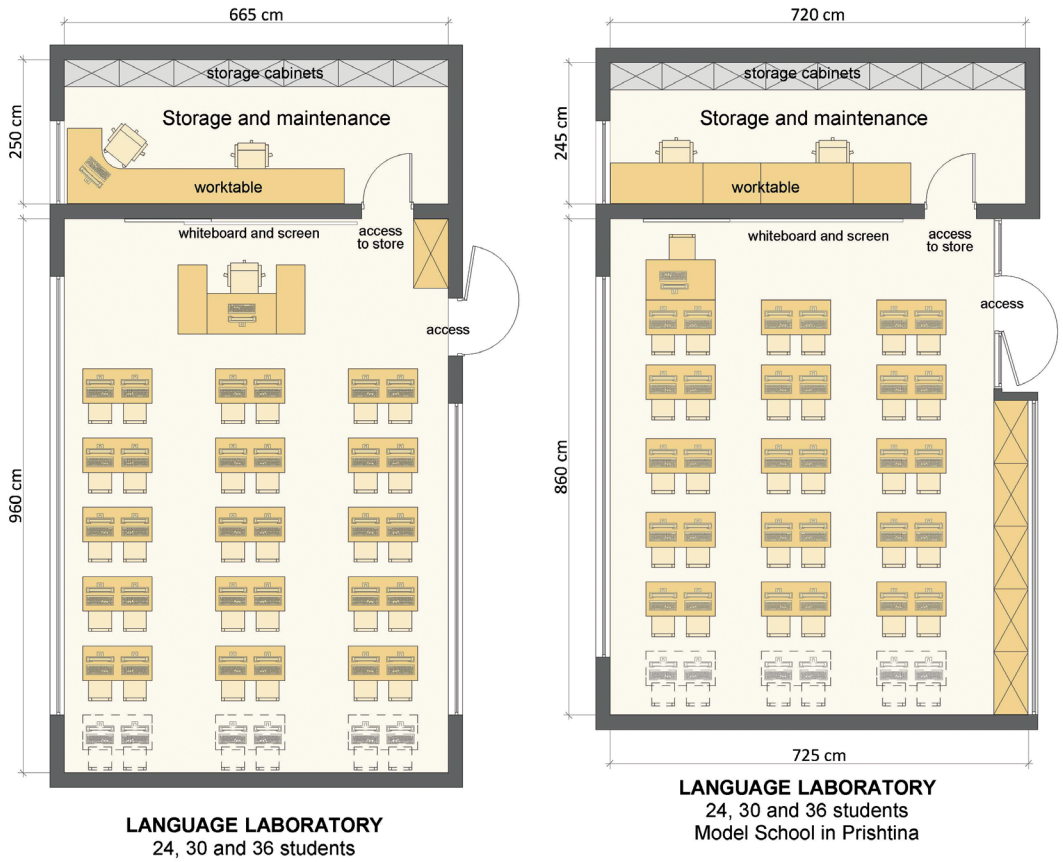


FIG. 2-4.3

(b) Layout and capacity

Sciences laboratories will be designed so that they can be used by (i) full student groups of 30 to 36 or 24 students for demonstration courses; and by half groups of 15 to 18 or 12 students to carry out practical works and experiments in sub groups of 2 to 4 students.

For technical and practical reasons, it is recommended that the workbenches be installed along side walls (and possibly along back wall) of the laboratory. This type of layout would allow for both demonstration and practical works and, in addition, it will avoid the laying of networks in or under the floor. Such benches should be equipped with sinks, outlets for water, gas, electricity and UPS.

- **Students' workbenches** should be designed for groups of 2 to 4 students working together. The top will be resistant to abrasive solutions (acids), to fire, to shocks and it should not be conductor. Computers are used sometimes to simulate experiences. The lower part of the benches could be used as cupboards with shelves;
- **Teacher's workbench** will have the same specifications as above. Used by the teachers for demonstrations, it should be placed in front of the chalkboard and have enough free space

around it. Minimum size of the teacher's bench is 0.8 m x 2.0 m;

- **Chalkboard / whiteboard** should be installed on the front wall and possibly on the back wall. Provision should be made for a projection screen;
- **The door** of science laboratories should be 1.0 m wide and it should open outside the room. A second door located at the back of the laboratory, of the same width, is advisable for the larger standards (18/36 students) to ensure evacuation out of the laboratory in case of emergency. Another door will be installed between the laboratory and the preparation/ storage room, close to the teacher's workbench.
- A **fume hood** capable of preventing the buildup of and decreasing exposure to toxic, flammable and explosive vapors and particulate resulting from laboratory analytical and testing procedures. It must provide good chemical resistance with excellent durability and resistant to heat fumes and vapors.

(c) Architectural requirements

The location of laboratories on the school campus will comply with either one of the following alternatives:

- The science laboratories are located in separate block and provided with external doors that open on the school campus for fast evacuation emergencies; and
- For security reasons, the science laboratory may be located on the top floor as precautions against fire spreading and isolation from noise.

(d) Comfort requirements

- Good ventilation is particularly important for climatic comfort and for evacuation of odours, gases and fumes;
- Control of light with curtains, stores, shutters or shades is needed in order to allow precision work and experiments needing darkness (optical, electrical...);
- Height of window sills should be sufficient to prevent glare on workbenches located along the windows (and to allow for water taps on top of benches);
- Noise from numerous movements of students and shifting of furniture should be minimized with the help of smooth flooring and gum tips under the stool and table legs.
- Minimum height should be 3 meters.

(e) Safety requirements

Spaces where high risk material are stored or high risk activities take place (handling of flammable products, acids, toxic materials, sharp instruments and tools, etc.) require special attention to protect persons and goods from fire and accidents:

(iii) All laboratory premises are high risk zones and should be protected **against fire**:

- The laboratory layout should be designed so that the teacher can easily and closely supervise students' experiments;
- Storage of combustible materials should be located away from workbenches
- Fume evacuation should be provided by high or transom windows or by mechanical ventilation in addition to the fume hood;
- Fire extinguishing equipment (mainly fire extinguishers) should be provided in laboratories and preparation rooms (in addition to the other equipments installed in the circulation areas);

(iv) Protection against the **risk of accident** is also an important consideration in laboratories:

- For easy maintenance, electrical network,

water and gas conduits could be installed on walls, under benches with an efficient protection of built in sheathing.

- A minimum distance of 1.0 m should be maintained between water sources (taps) and electricity outlets;
- The electrical distribution board should be easily accessible, installed on the wall behind the teacher (or in the preparation room) and closed in a locked box. An independent shut off switch should be added with an emergency stop.
- Emergency shower and eye-washing stations that could be located in preparation rooms; and
- Provide emergency lights to avoid accidents in case of power cuts during experiments.

(f) Technical requirements

(i) Surface finishes

- For experiments, handling of chemicals and ease of cleaning, it is recommended to lay ceramic cladding on walls up to 2.1 m, with oil paint to cover the rest of the wall;
- Sinks should be made of easily washable and be resistant to acids material; and
- Workbenches should be protected with countertops resisting to chemicals and shocks.

(ii) Conduits

- Avoid as much as possible built in conduits and allow easy access for maintenance and repair; and
- Discharge conduits should be ventilated, resistant to acid products and have a slope of 1 to 2% for easy evacuation.

(iii) Electrical supply

- Wiring should be protected by a sheath;
- The supply system should allow for future extension of the power needs for new equipments.

(g) Furniture and equipment

Items specific to the sciences laboratories are:

- Tables with protected top surfaces (polyurethane resin should be used for surfaces where experiments and demonstrations are performed);
- Stools and chairs for students and teacher;
- Display cupboards;
- Storage cabinets with sliding doors to be used for white boards;
- Trolley tables;
- Fire extinguishers and first aid kit;
- Computers and related equipment;
- Multimedia equipment;
- Laboratory scientific equipment.

4.1.5 PREPARATION AND STORAGE ROOM

(SEE V2 ANNEX 02 SHEET U05, U06, R05 AND R06)

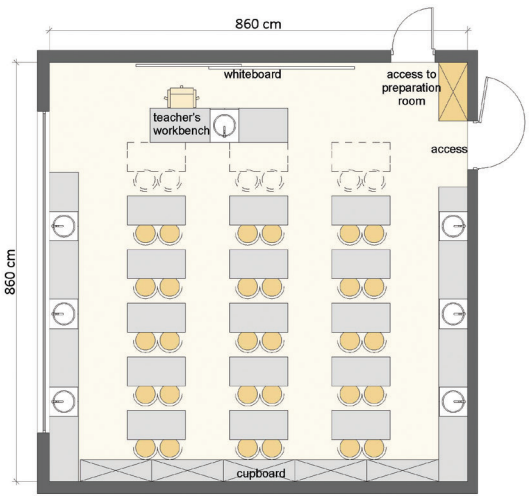
(a) **Lay out and activities**

The preparation room should be adjacent to the science laboratories. It is used for teachers' preparations and storage of equipment, bulk supply and consumable products. Whenever possible the same preparation room, if located between two laboratories can be used by the two concerned teachers. In this case the surface area must be larger, the workbench must have two sinks and there must be two computer workstations.

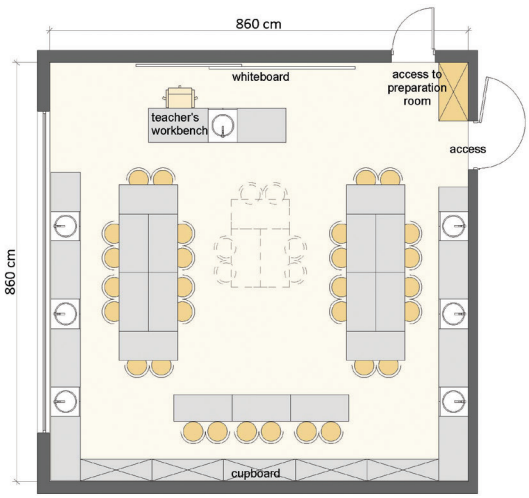
The activities include the preparation of demonstrations, practical works and experiments that will be presented in the laboratory, the repair of materials and equipment and the storage of materials as well as fragile or dangerous equipments.

In addition to its direct access (or accesses) from the laboratories, this room must have a separate access door from the corridor.

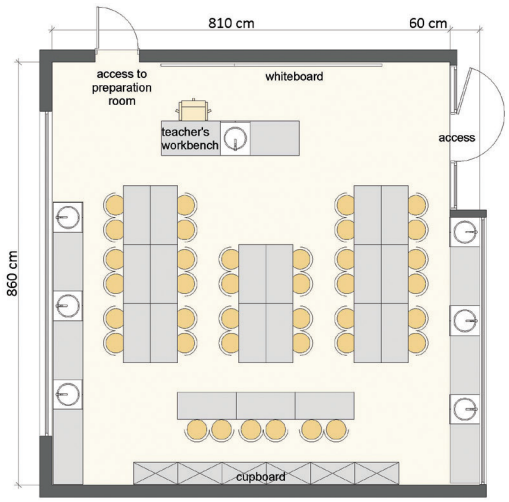
(b) **Comfort requirements**



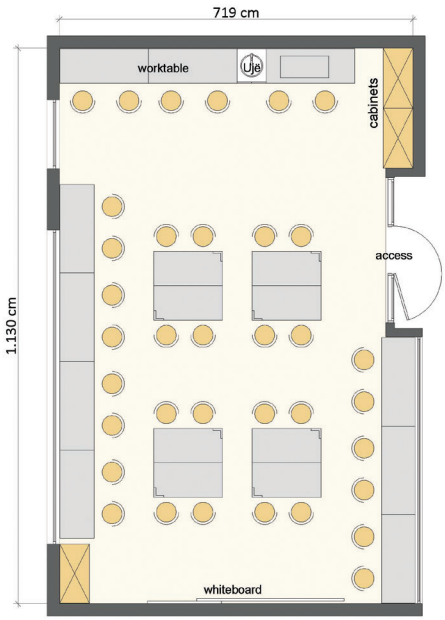
SCIENCE LABORATORY
30 - 36 and 15 -18 students
Demonstration courses



SCIENCE LABORATORY
30 - 36 and 15 -18 students
Practical works



SCIENCE LABORATORY
30 - 36 and 15 -18 students
Practical works



HANDCRAFT
30 - 36 dhe 15 -18 students
Practical works - Model School

FIG 2-4.4

- Good ventilation is essential for protection and conservation of equipments and products as well as for the evacuation of odors, gases and fumes; and
- Sufficient light both natural and artificial is requested for a good visibility.

(c) **Security requirements**

Measures should be taken to protect the room from fire, biologic agents, theft and vandalism. This includes:

- High quality safe doors;
- Protection grids on windows;
- Installation of fire extinguishers;
- Good waterproofing of supply and evacuation ducts.

(d) **Special equipment**

- Ventilation hood (see details in Laboratory para. 5.1.3 (c));
- Special ventilation closet for toxic and volatile solutions; and
- Cabinets for microscopes and other delicate instruments.

4.1.6 ARTS AND DESIGN ROOM

(SEE V2 ANNEX 02 SHEET U07 AND R07)

(a) **Activities**

The design and art room is supporting (i) individual activities such as modeling, painting, drawing...etc.; and (ii) arts workshops in groups for students and possibly for local community members after school working hours.

(b) **Layout and capacity**

For an efficient management of this activity and to save on required equipment it is recommended to design this room for half groups. In addition, for small schools where the rate of occupancy is low, this room could be combined with the music room.

(i) **Flexibility:** the design should be flexible and adaptable to several type of activities such as pottery, ceramics, painting, modeling...)

(ii) A **display area** should be set up for finished artwork and crafts;

(iii) A minimum **one sink** with small bench should be installed; and

(iv) A **store room** with shelves and cupboards should be considered.

(c) **Comfort requirements**

(i) Lighting and electrical outlet: lateral windows should provide enough natural light. Possibility to darken the room with curtains, shades or shutters is requested. Spotlights and projectors should be added to the regular ceiling luminaries.

(ii) Acoustics: ceiling and walls should be soundproofed; and

(iii) Natural ventilation could be obtained through high windows along lateral sides.

(d) **Finishes**

(i) **floor**: resilient flooring, vinyl flooring is recommended for the general arts area while terrazzo tiles are suggested for the modeling area; and

(ii) **wall** finishes should be resistant and washable;

(iii) **ceilings**: acoustic tiles to give a low reverberation time

(iv) **colors**: light, neutral colors and off-whites to maintain good light and not detract from the work. Possibility to use color accents from students' work displays and information graphics.

(e) **Security requirements**

(i) Access: easy access from the outside and con-

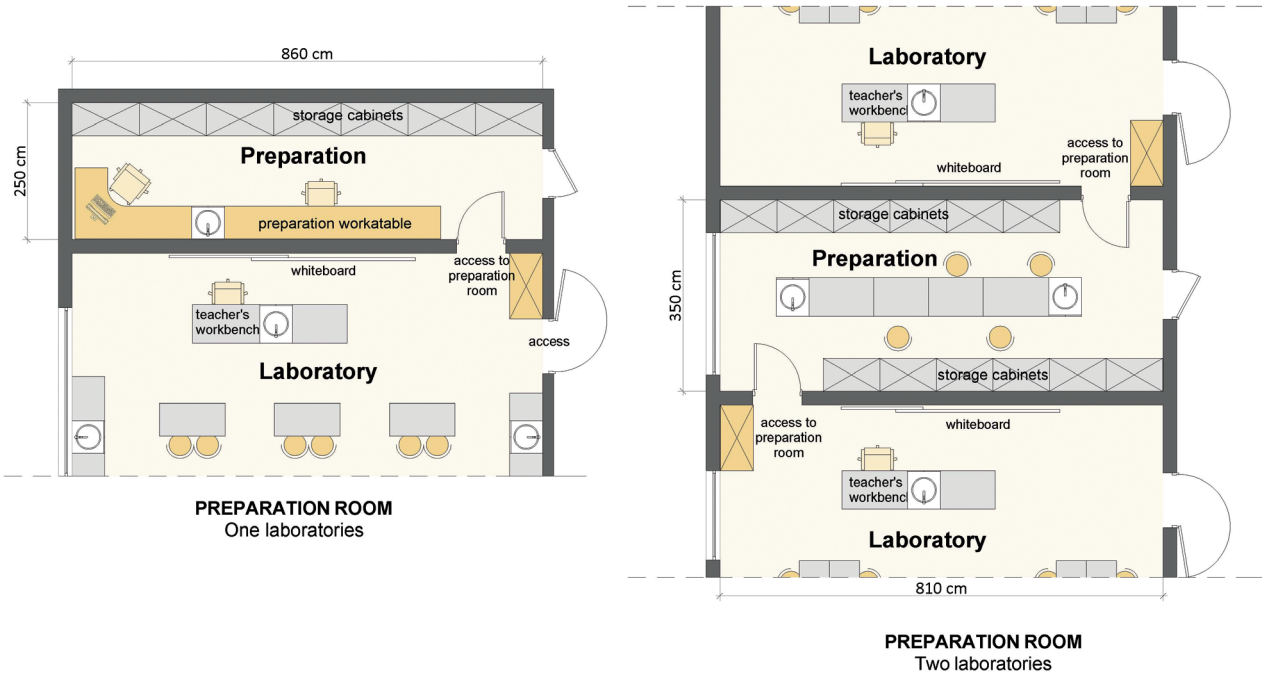


FIG. 2-4.5

trolled access from the rest of the school;

(ii) Protection against thefts with high quality security doors.

(f) **Equipment and furniture**

Ergonomically and anthropometrically appropriate furniture:

- Stackable chairs
- Stools and trestle tables and trays;
- Curtains and shutters;
- Chalkboard and whiteboards
- Drawing and painting equipment
- Modeling and handicraft equipment.

4.1.7 MUSIC ROOM

(SEE V2 ANNEX 02 SHEET U08 AND R08)

(a) **Activities**

The music room will receive various sized performance groups for individual practice, small ensemble repetitions and possibly small orchestra and choir groups. However, this room is mainly intended for instruction, not for performance. It shall support the following activities:

- Instrumental and vocal music;
- Music appreciation and listening
- Correlated activities (rhythm, dance)
- Music theory and history
- Possibly, music courses for community members after school hours.

(b) **Layout and capacity**

For an efficient management of this activity and to save on required equipment it is recommended to design this room for half groups. In addition, for small schools where the rate of occupancy is low, this room could be combined with the Art and design room or the Multipurpose hall.

The recommended location of this room would be on the ground floor, if possible near the multipurpose hall and/or the Arts and design room as they have complementary activities.

(i) **Flexibility**: a flexible design is required to offer several layout possibilities;

(ii) An **instrument storage** should be planned next to the Music Room so that students could easily collect their instruments.

(c) **Technical requirements**

Acoustics: the acoustic design should be carried out by an acoustics expert.

The **sound quality** should aim for an optimum sound reverberation time and an even sound distribution using special materials for sound reflecting and echo absorption. **Sound insulation** of walls, doors and ceiling is required to avoid disturbing other classrooms. The store room can be used as a sound transmission buffer.

(d) **Finishes**

- **floors:** resilient flooring, carpet (depending on acoustic requirements);
- **walls**: painted plasterboard with pin-ups, panels of different materials, such as profiled timber or perforated plywood, may be appropriate to enhance the acoustics;
- **ceilings**: painted plasterboard to give required reverberation, some absorbent finishes, e.g., acoustic tiles or timber slats with acoustic absorbent backing can be placed to achieve the required acoustics;
- **color:** mid-tone colors usually help to reduce contrast and glare with small areas of dark, highly saturated colors for variety.

(e) **Equipment and furniture**

- ergonomic desks and chairs as for classrooms;
- special ergonomic factors apply to chairs and stools for seated musicians;
- adjustable music stands;
- Closet, cabinet and shelves
- Audiovisual equipment
- Whiteboard.

4.1.8 COMPUTER (IT) ROOM

(SEE V2 ANNEX 02 SHEET U09 AND R09)

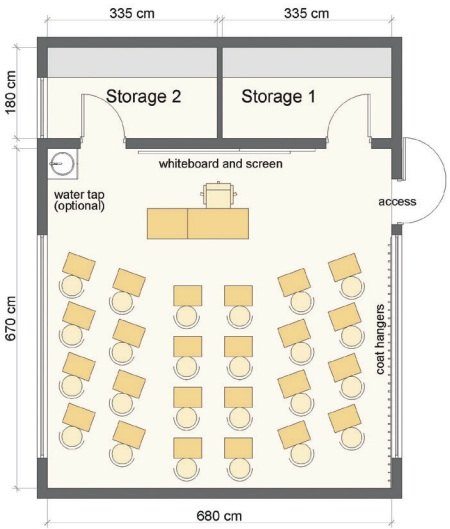
Many classrooms have computers and, in the future, all new schools will have dedicated computer rooms.

(a) Activities

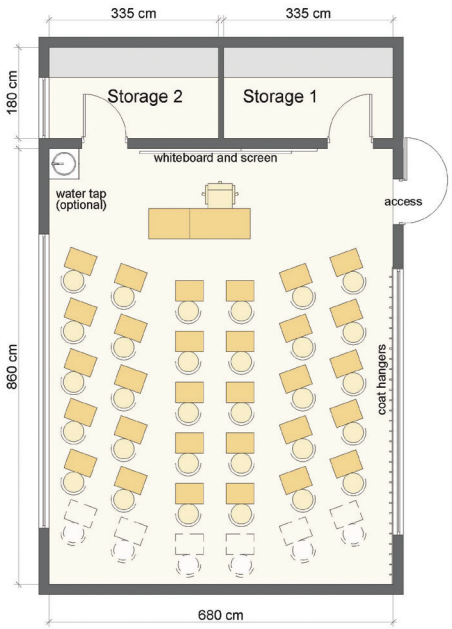
- Introduce students to the computer and its language;
- Teach students to type, draw, use internet...
- Eventually, provide computer assisted courses open to the public after school hours.

(b) Layout and capacity

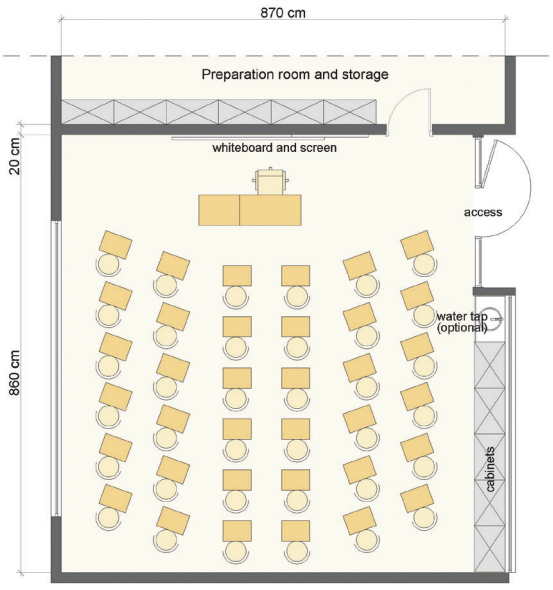
- For efficient teaching and to save on required equipment, it is advisable to design the room for half groups 15 to 18 students in urban areas, 12 students in rural areas
- Workstations can be installed along the two sides, facing the chalkboard or in two rows facing each other in the middle of the room.
- Sufficient power and LAN outlets should be installed in the floor or in special gutters designed for maintenance purpose, and provide



MUSIC ROOM
24 students

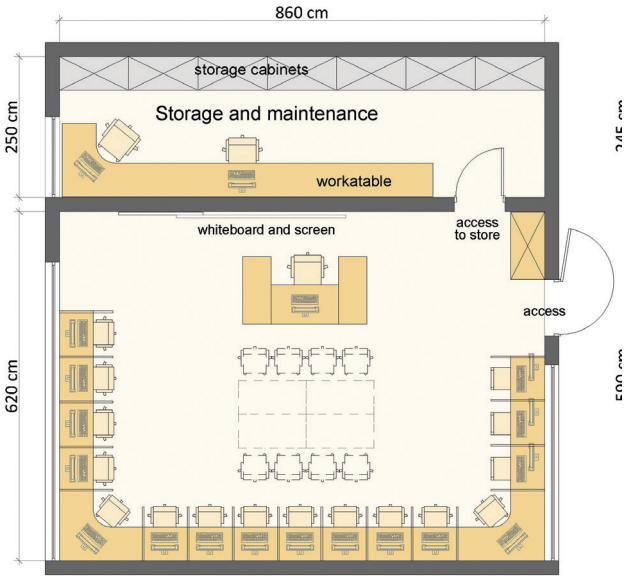


MUSIC ROOM
30 and 36 students

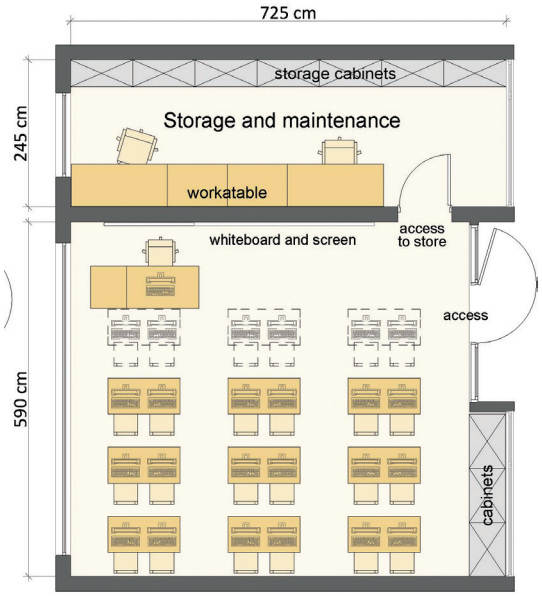


MUSIC ROOM
30 and 36 students
Model School in Prishtina

FIG. 2-4.6



COMPUTER ROOM
15 and 24 students



COMPUTER ROOM
15 and 24 students
Model School in Prishtina

FIG. 2-4.7

plugs for the projector to be installed in the ceiling.
- Avoid glare from windows

(c) Finishes
- Floors: resilient flooring;
- painted plasterboard shock resistant walls;
- ceilings made of acoustic tiles to give a low reverberation time;
- mid-tone colors to help reduce contrast and glare; and

(d) Equipment and furniture

Students who spend periods working on computers in the wrong posture are at risk. Poor posture can cause pain and other symptoms in the back, neck and shoulders, hands and wrists, eyes. There is no single 'ideal' (upright) sitting posture for using a keyboard. The ideal is to provide adjustable chairs, desks and workstations to make movement easy and provide good support for the body.
- Each workstation will have a computer station equipped with a drawer, small case for the computer and sliding shelve for the keyboard;
- Student chairs must be movable, adjustable and comfortable;
- The front board will be equipped with a white-board to avoid chalk dust. Possibly a second white board may be installed on the back wall;
- The teacher's table should be equipped with a computer networking cable system, modem, printer with all necessary electrical and UPS system network and plugs;
- Notice boards, pin up boards..;
- Clothe hanger on the wall.

(e) Lighting
- Installation of curtains, blinds or shutters on windows is recommended to avoid glare on the screens and to protect the equipment;
- Each station should be equipped with an individual light, movable in three directions and lateral to the computer; and the rest of the school
- Computer screen should be preferably placed perpendicular to the windows.

(f) Comfort requirements
- Orientation to the North is preferable to avoid direct sunlight on screens;
- The room should be located away from noisy areas;
- Computers should be placed under tables for noise reduction.
- Anti-static carpeting, wall coverings and upholstered seating may be considered for noise reduction purposes
- Minimum required height is 3 meters.

(g) Technical requirements
- The room(s) will have an autonomous electrical supply and heating, operating independently from the rest of the school, after school regular hours, if needed. Two electrical outlets, one phone outlet should be installed at each station (including the teacher's). The cables should be protected for a maximum security.
- Regular room temperature and adequate ventilation should be maintained, if possible with an air conditioning or heat pump system to ensure the proper functioning of the computers.

(h) Security requirements

The computer room and its expensive equipment must be protected against theft and vandalism. However it should be accessible to the public for night courses.
- A storage room with cupboards and open shelves should be adjacent to the computer

room with one common door between them;
- Access point should be limited to one unit with highly secure lock(s).
- Windows must be designed to prevent unauthorized entry. On ground floors, security grills will be installed at each window.

4.1.9 LIBRARY AND MEDIA CENTRE

(SEE V2 ANNEX 02 SHEET U10 AND R10)

(a) Activities

Education systems in many countries are changing traditional libraries into media centres, adapting to new technology, as well as to other issues such as comfort, flexibility, and maximum use of space. In addition, school curricula are increasingly based on collaborative and group projects. As a result, there is less and less emphasis on traditional, individual study settings. Instead, school libraries are developing learning centres, which provide group study rooms and settings, well-supported by access to electronic information resources, hardware tools, and associated productivity software

Appropriate space planning for present needs and future expansion/adaptation of libraries is imperative during the school programming phase. Computer and video technology, in addition to other forms of media including print material, is an important part of education. Use of technology in the library must include design aspects that support learning, including adjustable lighting, ample electrical connections, sound control, and space for expansion. School library space must also accommodate computer learning that is separated from quiet reading, group study, circulation, reference work, and other learning activities.

The activities to be sheltered in the library and media centre are: (i) reading individual works by students and teachers; (ii) educational activities in small groups (collective research and studies, book appreciation...); (iii) internet access; (iv) loaning of books; (v) labeling, shelving, distribution and lending of books; and (vi) possible opening to the public (local community) after school hours.

(b) Layout and capacities

(i) **Design and lay out**

For the most effective learning to occur, the facility must address the needs of the students, school and library staff. Ease of access to print and non-print resources, comfortable work and study spaces for individual students or multiple classes of students and sufficient workspace to meet current and future technology needs are all basics.

Flexibility in design is essential to allow multiple activities and to accommodate future curriculum and technological changes. The design should also provide for easy librarian and teachers' supervision while recognizing efficient flow of traffic, to minimize disturbances. Control of exits is also important: the minimum number of exits required for safety and smooth traffic flow is recommended.

The library is an active, learning centre and should be able to accommodate multiple instructional activities at the same time. Specific areas of the library would include:

- An entrance area with:
  - a reception area with sufficient space for bags and sacks;
  - small librarian office with a reception desk;
  - bibliographical and general references;
- The storage and shelving area:
  - book storage with shelving and processing workroom;
  - shelves for equipment;
  - display area;
- The reading area and media centre
  - quiet study/recreational reading spaces for students and teachers;
  - audio-visual space (TV, DVD etc.)

FUCTIONAL DIAGRAM OF A LIBRARY AND MEDIA CENTER

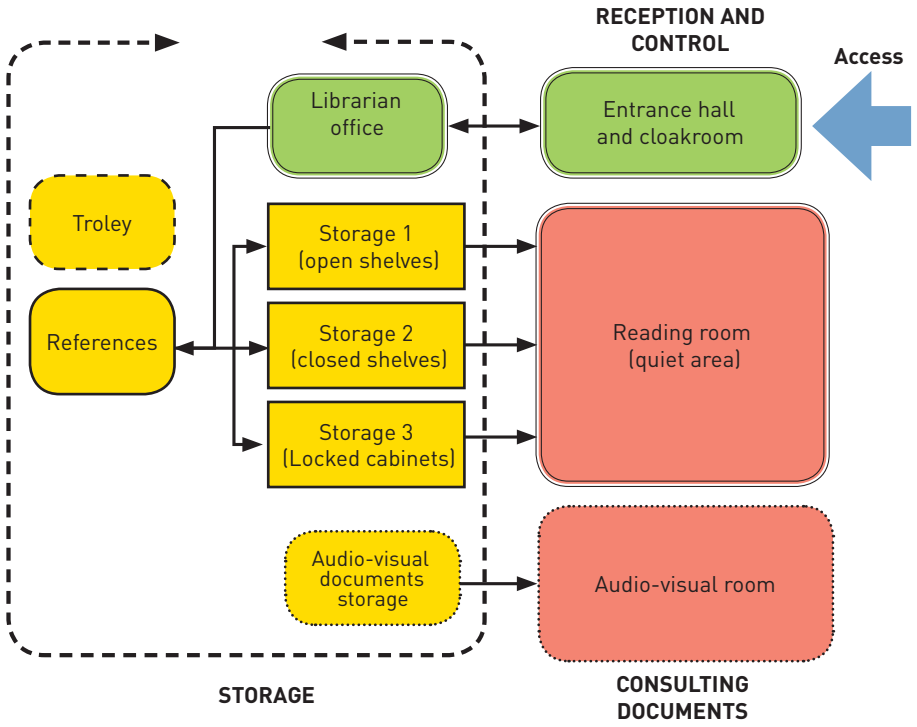


FIG. 2-4.5

- computer/technology area;
- a multimedia production area;

(ii) . **Location, capacity and size**

- the library should be located in the central part of the facility in order to be more attractive for the students, on the ground floor, near the computer room(s) and oriented towards North;
- the number of books to be shelved in the store room will be defined by the MEST, on the basis of standard collections of school libraries (i.e. the usual average ratio for upper secondary is between 10 and 15 title per school student place);
- the capacity of the library and media center has been calculated on 20% of the total number of students (users), attending the library in specific time and the unit surface area is 1.4 m2 per place;

(c) Finishes

- floors: carpet and/or resilient flooring;
- painted shoc resistant plasterboard wall;
- ceilings: acoustic tiles to give a low reverberation time;
- color: warm, bright colors.

(d) Equipment and furniture

- shelves and stacks for books and periodic;
- librarian counter and shelves for brochures, flyers, forms...
- card index box (small drawers)
- the issues/periodic display desk carefully designed with hard-wearing surfaces, bright colors and scaled to suit the size of the students;
- comfortable low chairs and low tables are appropriate for casual reading;
- computers for students, teachers and librarian, positioned to avoid glare;
- adjustable workstations with writing platforms for note-taking;
- IT equipment including scanner, printers...
- audiovisual equipment (DVD, LCD, TV, overhead projector, screen...etc).
- photocopier

(e) Security requirements

(i) **Theft and vandalism:** measures should be taken to protect both documents and equipment. This includes:

- only one access/ exit through a strong door with highly secure lock;
- easy surveillance of entrance and interior spaces;
- shelves for school bags deposit at the entrance;

(ii) **Protection of documents** should be ensured with:

- Insulation against wind and dust;
- Ventilation to counteract degrading effects of humidity;
- Protection against sunlight: if the North orientation is not possible, shutters, curtains and shades should be installed on windows;

4.1.10 MULTIPURPOSE HALL

SEE PARAGRAPH 2.2.6 AND DIAGRAM 2-2.6 FOR MULTIPURPOSE HALLS OF THE PRIMARY LEVEL

4.1.11 SPORT HALL

(SEE V2 ANNEX 02 SHEET U11 AND R11)

(a) Activities

The sports hall supports a range of physical activities including basketball, volleyball, gymnastics, rhythmic dancing and others.

(b) Layout and capacity

(i) **Capacity and area:** the sport hall should be able to shelter two classes simultaneously and the average net area of the gymnasium part per student is 8 m2.

(ii) **Layout:** the gymnasium shall be of rectangular shape and as a minimum, it should house a basket ball court (26 x 14 m) and its surroundings (2 to 3 m on each of the four sides). The minimum height is 7.0 m. The end walls should be left blank for ball games and doorways should be kept as much as possible to the sides. Annex rooms will include:

- changing rooms with showers/toilets (minimum two blocks);
- equipment store(s);
- physical education teacher's office with toilet/ shower and changing space; and
- space for spectators possibly in tribunes (optional).

(c) Comfort requirements

(i) **Lighting**: Homogeneous light is needed all over the gymnasium which can be obtained through high level and full length windows on at lest one side of the gymnasium. Likewise, artificial lighting is needed with a uniform repartition of intensity.

(ii) **Heating**: the gymnasium should be at a comfortable temperature at all time. In winter a minimum temperature of 13°C must be maintained and heating system with exposed pipes and radiators should be avoided;

(iii) **Natural ventilation** through high windows and artificial ventilation;

(iv) **Acoustics:** Because of the high noise level sound absorbent material should be used on ceiling, sidewalls and on the floor.

(d) **Finishes**

All finishes of the sports hall must be robust and washable:

- **floors:** resilient finishes e.g.: foam-backed resilient sheet, timber strip on battens, purpose-built sprung sports floors;
- **walls:** plywood, timber boarding, particle-board, painted fiber-cement, tiles with holes for acoustic absorption;
- ceilings with wood wool panels, timber battens with gaps and acoustic absorbent backing, perforated metal with acoustic absorbent backing
- **colours:** natural materials and neutral tones punctuated by strong bright color accents

(e) **Security requirements**

- Access to the gymnasium should be direct to a paved area for a possible evacuation with an ambulance;
- Glazed doors should be avoided to minimize harmful accidents;
- Lighting fixtures should be covered with security grids;

(f) **Equipment**

The sports hall must be provided with:

- sport and gymnastic equipment;
- wall fixtures for ropes, basketball panels, volleyball net, etc.
- floor mats, gymnastic mats and sets of hurdles;
- special storage devices for balls, ropes; and

4.2 ADMINISTRATIVE SPACES

4.2.1 GENERAL LAY OUT

The administrative area is receiving the public including administrative authorities, suppliers and parents. Therefore it is recommended it is recommended to locate it in the vicinity of the school main entrance. Its layout should allow an easy access of the public and an easy control of entrances and exits.

The circulation and waiting spaces should be designed to facilitate the access of users and visitors, but they should be separated from the classroom circulations to avoid disturbing both students and school administrative staff.

4.2.2 OFFICES

(a) Administrative activities are including school management, administrative works, staff meetings, reception and meetings with parents, duplication of documents, classification and filing.

(b) Layout: The offices and rooms included in this area are the director's office, the deputy director's, the secretariat with the reception desk, the accountant's office, a teachers' room, a community organization room, a professional orientation room, a storage room, an archive room, a waiting area, staff and visitors' toilets. The secretariat location should be directly in relation with the waiting area, the director's office and its deputy's office.

(c) Security requirements: the administration offices require a good protection against thefts and vandalism including:

- Solid doors with high quality locks;
- Window protections with metal grids;
- Closets, cabinets and cupboards with sturdy locks;

FUCTIONAL DIAGRAM OF A SPORT HALL

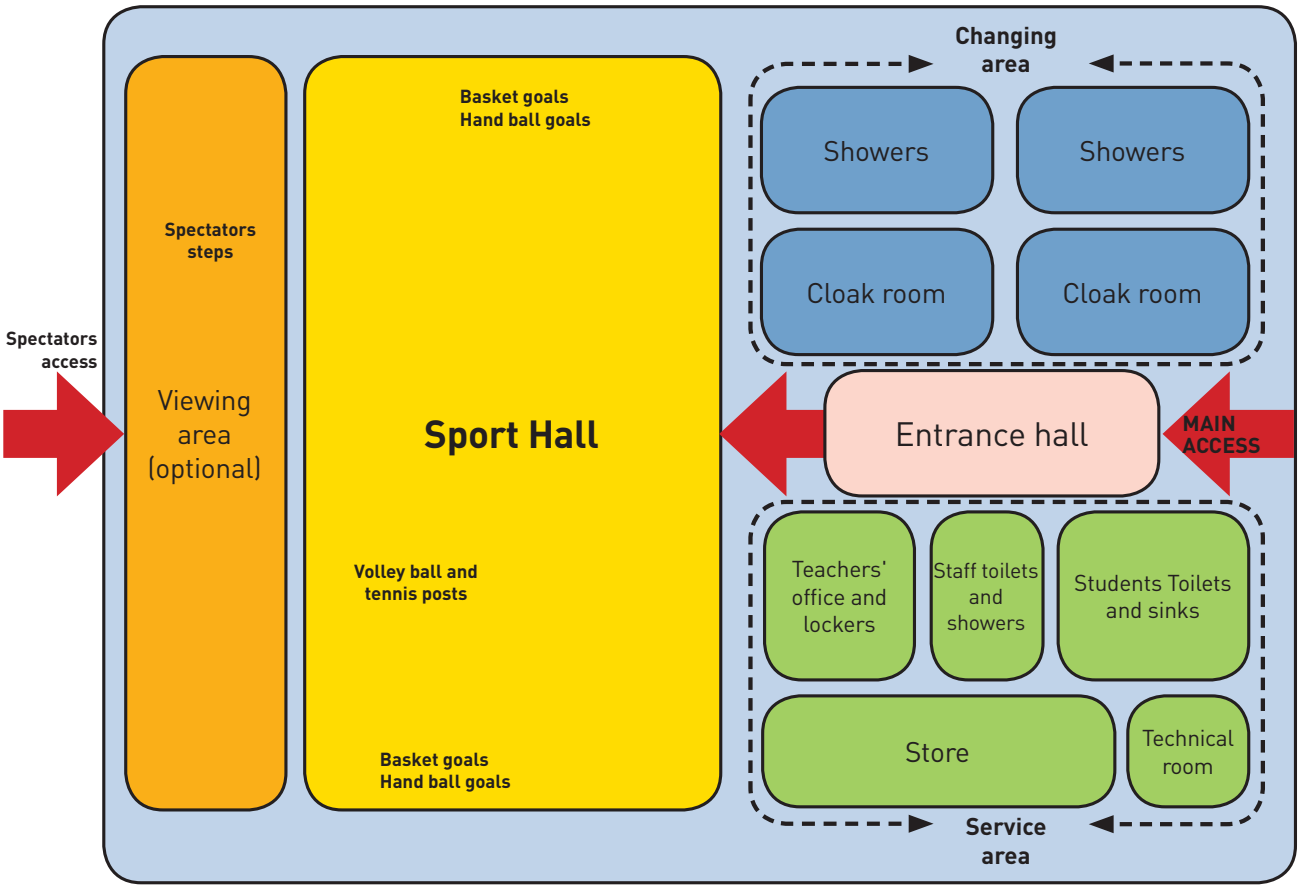


FIG. 2.4.9

(d) Furniture and equipment:

- Computer, internet access, networking cable and/or wi-fi system, scanner, printers;
- Bookcases, filling cabinets, cupboards, shelves;
- Desks, armchairs, chairs,
- Safe for important documents;
- Telephone network (interior and exterior lines, fax machine);
- Photocopier

4.2.3 TEACHERS' ROOM

SEE PARAGRAPH 2.2.4 ABOVE FOR TEACHERS' ROOMS OF THE PRIMARY LEVEL

4.2.4 FIRST AID ROOM (OR MEDICAL ROOM)

(a) **Activities**

The primary activities and functions of the First Aid Room are:

ADMINISTRATION FUNCTIONAL DIAGRAM

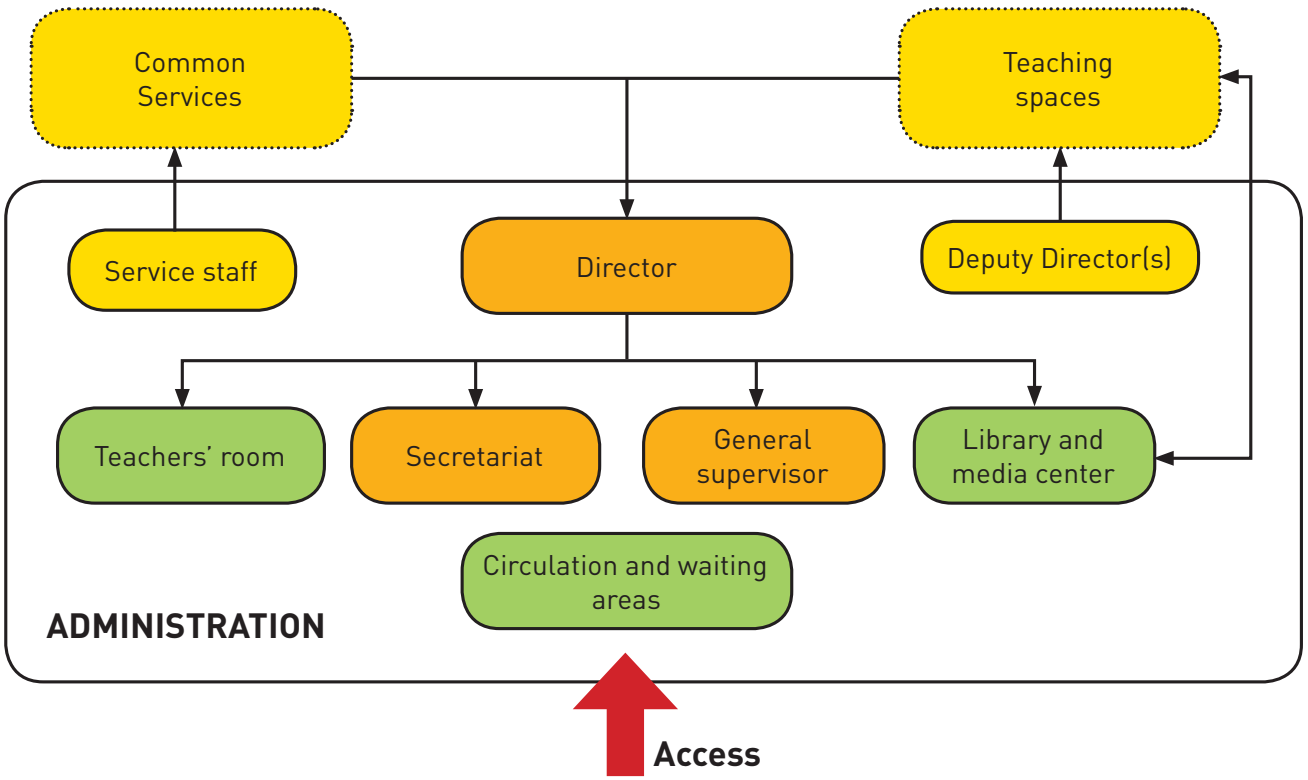


FIG. 2-4.10

(i) Regular medical inspections;
(ii) Regular dental inspection;
(iii) Temporary care of students who feel sick or hill during the school day;
(iv) Emergency room for accidents.

(b) **Layout and area**

The space should be divided in three areas including a waiting area, a changing room and a space for medical inspection and care with a sink and a small workbench..

The total area of the first aid room is 16 m2.

(c) **Location**

The first aid room should be located away from noisy areas and adjacent to an accessible waiting space.

(d) **Equipment and furniture**

Equipment and furniture shall include (i) a medical examination table, (ii) a cupboard for drugs with a secure lock; (iii) First aid supply and equipment; (iv) Testing equipment; (v) a writing table, chairs and filling cabinet for records; and (vi) curtains and shutters.

4.2.5 STATIONARY STORE, ARCHIVES

(a) **Activities**

(i) The stationary store provides space for all stationary to be used by the administration and teachers;

(ii) He archives are providing space both for reproducing documents and for archiving documents.

(b) **Area and layout**

The area of these two rooms varies according to the type and size of school.

(i) The stationary room should be located next to or in the administration block with a direct access; it should have fixed shelving and minimum natural light.

(ii) The archive room should be located adjacent to the secretariat with direct access, it should have sufficient space to accommodate a worktable, one or two photocopy machine and fixed shelving.

(c) **Security requirement**

Measures should be taken to protect both rooms from theft and vandalism with particular attention to the photocopy machine. In addition these rooms should be protected against sun rays (minimum opening with transom windows), humidity, against insects, small animals and dust.

4.3 COMMON AND SUPPORT FACILITIES

The **common facilities** are those necessarily provided for the occupants and users of the school buildings, comprising the staff and students, apart from those dedicated to teaching or administration. These facilities include toilets for student and visitor use, and those specifically provided for staff in the administrative area, together with the circulation areas. **Support facilities** house those activities and services that complement the teaching and administrative parts of the school buildings, e.g. a cleaner's room and store, a guard room, general storage, water tanks, plant rooms including an electrical control room and external services such as the sewage and foul water treatment and disposal system.

The critical numbers, areas and capacities of the main facilities required are set out below and in the accommodation schedules (Volume 1, annexes 06 and 07).

4.2.6 SANITARY FACILITIES

SEE PARAGRAPH 2.2.7 AND DIAGRAM 2.2.7 FOR PRIMARY LEVEL ABOVE

4.2.7 CIRCULATION AREAS

SEE PARAGRAPH 2.2.6 AND TABLE 2.1 FOR PRIMARY LEVEL ABOVE

4.2.8 MAINTENANCE WORKSHOP

(a) Activities

(i) Maintenance and repair of school building elements, furniture and equipment;

(ii) Storage of broken items, tools and spare parts.

(iii) Storage of tools and consumables for gardening.

(b) Layout and area

(i) The maintenance workshop will be divided in two parts:

- The maintenance workshop itself with a workbench shelves and cupboards;
- The separated and locked storage area with shelves and cupboards.

(c) Security requirements: the maintenance workshop should be protected against thefts and vandalism with a strong door security locks and security grids on windows.

4.2.9 SCHOOL CANTEEN

(a) **Activities**

The canteen facilities will support the following types of activities:

- Preparing and cooking food for students' and staff lunch;
- Serving lunch in several services (or with a self service system) to students and school staff;
- Conservation of perishable and non perishable goods;
- Storage of kitchen tools, cutlery and plates;
- Washing and drying of cutlery and plates;
- Preparing recipes;
- Managing the purchase of goods as well as refuse disposal and discharge;

To decrease the cost of such facilities, it is proposed that the kitchen remains optional leaving the possibility to school administrations to outsource readymade meals. In this case, the only parts of the kitchen remaining in the designs would be the store rooms, the washing area and the cooks' office.

(b) **Layout and capacities**

- Students' dining hall. The capacity of the dining hall is calculated for three services, on the basis of 1/3 of the total school capacity. The dining room capacity is therefore proportional to the school size;
- An area with washbasins and drinking fountains for users;
- Food serving counter, especially for self service system;
- Teachers' and staff dining area (within the main dining room);
- Storage area with three main compartments
- Kitchen itself divided in three areas: preparation, cooking and washing
- Kitchen office and garbage store;
- One staff toilet with washbasin;
- An external service area with a direct link to the secondary entrance of the school campus.
- Placement of catering area close to the multipurpose area, or to be a part of it.

(c) **Finishes**

Finishes of the canteen facilities should hygienic should be made of robust surfaces and be easily washable. They should resist to oil and heat.

(i) **floors:**

- slip-resistant resilient sheet;
- slip-resistant ceramic tiles (for cooking areas);
- concrete with an industrial slip-resistant finish (note that while slip-resistant finishes are safer they are more difficult to clean);

(ii) **walls:**

- pre-finished fibre-cement sheets;
- ceramic wall tiles behind cooking areas;

(iii) **ceilings:**

- plasterboard with sound absorbent;
- perforated panels to reduce reverberation time;

(iv) **Colour**

- light, neutral colours and off-whites to maintain good light

(d) **Technical requirements**

(i) Temperature: acceptable temperature and adequate ventilation should be maintained in the Kitchen to ensure proper functioning. An air conditioning may have to be provided.

(ii) Electricity: the kitchen and store area shall have an autonomous electrical supply and

heating, operating independently from the rest of the school, before and after schools regular hours.

(iii) Strict respect of the fire protection rules, especially in the kitchen area.

(iv) Special treatment of oily wastewaters with oil and grease traps (cf. para. 3.3.2).

(e) **Security requirements**

The kitchen and its annexes are sensitive areas with expensive equipment and therefore, it must be protected against theft and vandalism with:

- Locked closets and cupboards;
- Locked storage rooms with secured locks;
- Limited access points with strong doors and highly secured locks;
- Safe windows (in special cases protected with security grids).

(f) **Furniture**

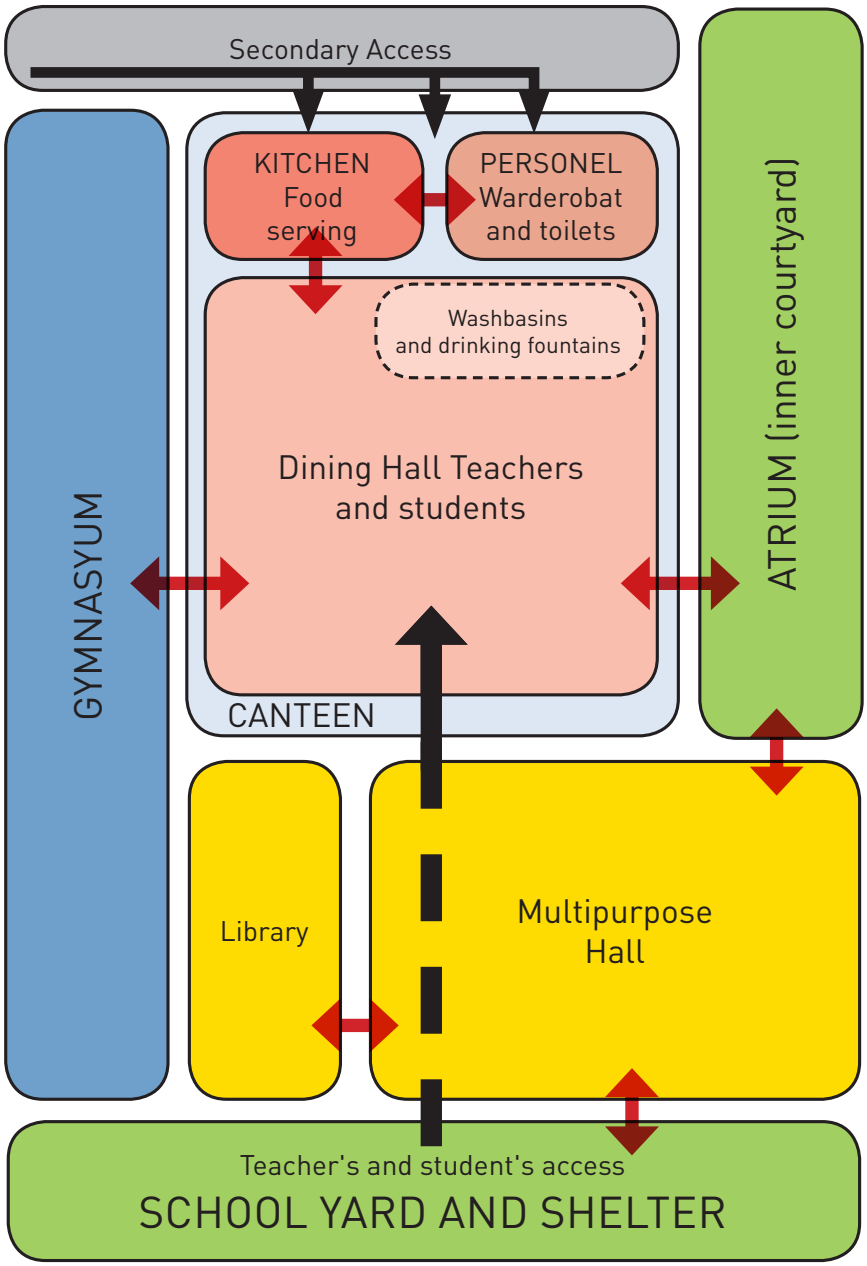
(i) Dining hall

- Ergonomically correct and hygienic dining tables and chairs;
- Food servicing counter.

(ii) Kitchen and stores

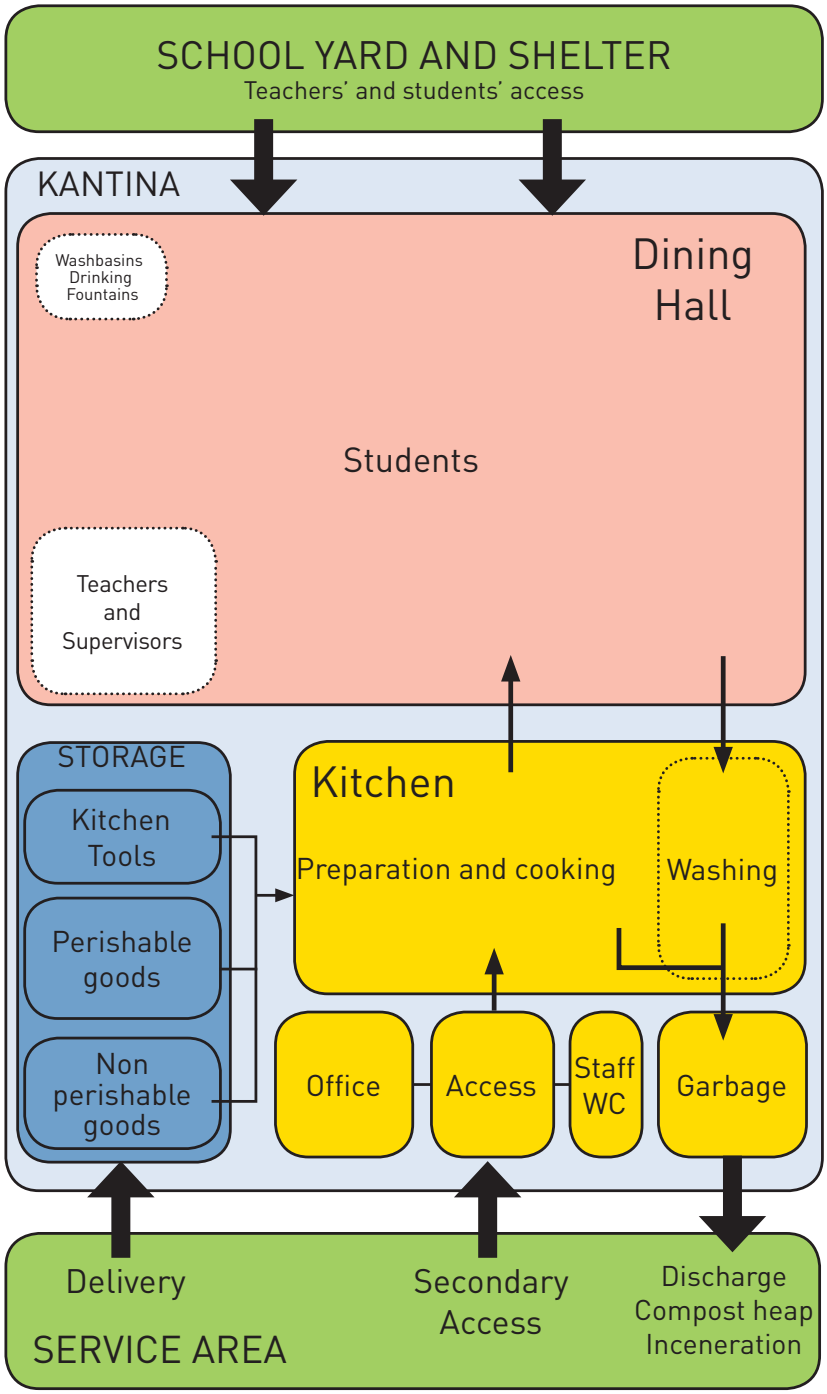
- Workbenches with sinks;
- Worktables resistant to shocks;
- Open shelves, cabinets and cupboards;
- Desk, armchair, chairs and computer in the office;
- Kitchen equipment, instruments and tools.

CANTEEN FUNCTIONAL DIAGRAM



A) CANTEEN WITH KITCHEN FOR FOOD PREPARATION
FIG. 2-4.11

CANTEEN FUNCTIONAL DIAGRAM



B) CANTEEN WITH KITCHEN FOR FOOD PREPARATION
FIG. 2-4.11

5

5. DESIGN OF EXTERNAL SPACES

The external spaces around the buildings merit careful design consideration. They are the spaces that link the built part of the school site to the edge of the site and beyond to the outside world.. The design considerations are principally the surface, planting and shade, the shape of area on plan and relation to buildings and boundaries.

In volume 01, annex 04 and its summary in paragraph 2.2.4 (table 2.9 and 2.10) give the minimum outside spaces that should be followed by designers for a given number of students to accommodate various forms of physical and recreational activities. These calculations are based on a summary distribution with three areas: (i) recreation and sports, (ii) circulations and parking; and (iii) plantations.

However, no specific target areas are defined for the detailed distribution of external spaces, but the table 4.1 below gives possible uses and activities with dimensions where applicable.

DISTRIBUTION OF SCHOOL EXTERNAL SPACES

Designation	Area / m^2	Comments
Playground	2.7 – 4.0 m2 per pupil	Recommended minimum
Assembly area	0.5 m2 / student	West of buildings mass In shade at 08.00
Landscaping and vegetation		As landscape design
Volleyball court	14 m x 26 m 12 m x 24 m	
Basketball court		According to the designer recommendations
Shaded and planted areas	1 car parking space for each staff member and 8 visitors	
Parking area		
Boundary walls		See site layout
Flag podium		Within the assembly area
Board sign		At the Entrance

TABLE 4.1.

5.1 PLAYGROUNDS AND SHELTERS

5.1.1 PLAYGROUND AND COURTYARDS

(i) **Activities and area:** the primary activity of the playgrounds and the covered yards is recreation.

(ii) **Design:**
- Playgrounds must be well defined and adequately proportioned spaces;
- Unwanted leftover areas cannot be considered as playgrounds.
- It is suggested to also plan the running course around the school premises. It is recommended that the running course is a closed line.

(iii) **Comfort requirements:**
- Protection against sunlight, winds and rain is important (trees, covered yard). The design must provide combinations of sunny/shaded areas;
- Noise control: the playgrounds should be oriented as much as possible towards the blind walls of the buildings
- Noise and wind barriers can be created with buffer zones of trees, walls and circulation space.

(iv) **Materials**
- Suitable surfaces for playgrounds are tar macadam covered with recycled tire granules, soft and porous material;
- The ground finishes should dry quickly after rainfalls;
- The surface of playgrounds must be easily marked out for games.

5.1.2 COVERED YARD

(i) **Activities**: the covered yard is used as:
- outdoor playground during inclement weather;
- space for large group activities and assemblies.

(ii) **Location**:
- the covered yard should be located next to the educational facilities.
- if it is separated from the class buildings, the access should be protected (covered galleries);

(iii) **Area**: the surface area varies according to the size and number of students of the school (about 0.6 m per student);

(iv) **Design**: the materials used for the roofing of the covered yard could be either "heavy" material (concrete slab) or "light" material (polycarbonate, steel sheets...)

5.2 SPORT AREAS

(a) **Activities**

The sport areas are used for athletics, gymnastics, ball games, after school sport activities and recreation.

(b) **Location and area**

The sport areas are covering a large, open, multipurpose space with noisy activities. The minimum distance to the building is 15.0 m for reasons of acoustic comfort and safety.

The main court should be located in proximity of the sanitary block of the sport facilities (changing rooms, showers).

(c) **Layout**
- Different colors should be used to mark the courts of different sports.
- If the space allocated is insufficient to have all sport courts, the same court could be used for several activities.
- The following is usually considered for secondary schools:
  - Handball court and mini football (40 x 20 m)

- Basketball (26 x 14 m)
- Volleyball (18 x 9 m)
- Athletics with 100 m races (7 x 115 m), long jump (50x 2.5 m), high jump (about 300 m2), weight throw (about 450 m2 in half circle);
- Terraces for spectators.

(d) **Comfort requirements**

- A north-South orientation of courts is required to avoid direct sunlight in the students' eyes;
- A stand - delineating green fence of trees on the periphery can provide protection against direct sunlight, winds and excessive noise. Delineating green fence should be planned for both sides of the court in order to provide shade.
- Two or three level bleachers, in line with the concept of organizing the school yard.

(e) **Technical requirements**

- The courts should be well drained terrain covered with semi-permeable material or hard porous rolled chippings over graded site material;
- The surface should be as smooth as possible and should have no rough spots.

5.3 GARDENS AND LANDSCAPING

In addition to the trees planted along the perimeter wall, small green areas could be planned and planted wherever possible in the outside spaces of the school. If the school facility is located close to a high frequency of traffic road, two lines of trees should be planted, and it should be planned to plant to lines of trees with capacity to absorb smoke, dust and noise.

Planted and landscaped areas will have imported topsoil to support surface cover vegetation, with pits filled with soil and drainage material for trees and shrubs, as directed by the landscape member of the design team.

Trees with heavy roots should not be planted close to sports fields or courses.

No plants that cause allergic reactions shall be used.

Outside outlets with water taps for watering plantations will be needed for each green space.

5.3.1 MICRO-URBAN ELEMENTS

- Outside outlets with water taps for watering plantations will be needed for each green space.
- All water taps should be accessible for people with special needs.
- Bins for recycling garbage should be provided
- Also garbage containers should provide the recycling option. They should be placed in a visible position in order to promote the culture of recycling.
- One side of the container site should be provided with green area. Drainage canal should also be provided by the designer.

5.4 EXTERNAL CIRCULATIONS AND PARKING AREAS

External areas for waiting and circulation should be planned to facilitate the mass arrival and departure of relatively large numbers of students. Provision should be made for both vehicle and pedestrian traffic. Upon planning of access roads and pathways in the school facility, due attention should be paid to the calm area (instruction area) and the noisy area (vehicle traffic).

5.4.1 ROADS

Internal roads for vehicles (cars and buses) should be strictly limited to the needs of the school.

Safety devices such as guardrails should make these roadways safer for both students and drivers and speed bumps would discourage drivers to speed up inside the school compound;

5.4.2 PATHWAYS

Pedestrian walkways should extend through the green spaces and should be accessible in all weather. They should be equipped with benches and lighted at night. Measures for draining rainwater must be provided to preserve the conditions of the walkways.

Pedestrian paths, approaches to entrances and other external circulation shall be paved. Paving will be by natural stone or precast concrete slabs, on screed over blinding concrete and hardcore.

5.5 FENCES

5.5.1 SCHOOL COMPOUND FENCE

The fence surrounds the school campus to protect the school against intrusions, thefts and vandalism and to prevent the unauthorized absence of students. In addition, the perimeter wall and the trees planted along it act as a sound buffer zone, mainly towards nearby crossing traffic and as a wind barrier for playgrounds and sport areas.

The designer will choose the most appropriate solution for the school boundary walls and gates. This would include various materials such as: (i) masonry walls of stones, bricks or cement blocks; (ii) precast products; or (iii) mixed solutions with low masonry walls combined with metallic barriers (ornamental steel or aluminum barriers, iron railing...) that can be used for the front enclosure wall.

In addition, a special attention will be given to the technical solutions that should be well adapted to the type of soil and topography of the school site.

5.5.2 SCHOOL COMPOUND GATES

School gates control corridor traffic for regular school activities. They also limit the main traffic flow, especially during after-school sporting events and other activities and they create a sturdy blockade from unwanted access.

The designer will have to choose the most adapted gate configurations for the main entrance (pedestrians and vehicles) and for secondary accesses. He will decide the gate locations, sizes and types: (i) single gate for pedestrians; (ii) double gates for cars (symmetric or asymmetric gates); (iii) type of materials (heavy duty steel or aluminum); (iv) decorative aspect in relation with enclosure fences and barriers; (iv) it is recommended to pull the door inside in order to provide an area for students to assemble, that prevents them from exiting straight on the street.

6

6. ATTACHMENTS

TECHNICAL SUMMARY OF CLASS ROOMS BY EDUCATION LEVEL AND TYPE OF SCHOOL FACILITY (SCHOOL FACILITIES PLANNED FOR HIGH DENSITY POPULATION AND LOW DENSITY POPULATION);

ANNEX 1: Class room/pre-primary education/high density population

ANNEX 2: Class room/primary education/high density population

ANNEX 3: Natural sciences laboratory/primary education/high density population

ANNEX 4: Preparatory room (science laboratory)/ primary education: High density education

ANNEX 5: Class room/pre-primary education/low density population

ANNEX 6: Classroom/primary education: Low density education

ANNEX 7: Natural sciences laboratory/primary education/low density population

ANNEX 8: Preparatory room (science laboratory)/ primary education: Low density education

ANNEX 9: Class room/ lower and upper secondary education: High density education

ANNEX 10: Specialized class room/ lower and upper secondary education: High density education

ANNEX 11: Language laboratory/ lower and upper secondary education: High density education

ANNEX 12: Science laboratory/ lower and upper secondary education: High density education

Preprimary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	PP
	Play area and classroom			Subject	TPS
	Area:	High density	Room: 1.1	Sheet	U01

1. FUNCTIONS

1.1	Room Name	Play area and classroom					
1.2	Cycle / level	Preprimary		Years	0		
1.3	Subjects	Music, painting, calculation, reading, games..					
1.4	Weekly load	36 Hours		Utilization rate	n.a %		
1.5	Capacity	30 to 36	Places	Teacher(s)	1		

2. DIMENSIONS

2.1	Net area (M2)	82.8 M2 (net)		Gross area	87.35 M2 (gross)		
2.2	Height under ceiling	3.00 M		Volume	248.4 M3		
2.3	Shape(s) / dimensions	Polygonal		Length (M)	Variable	Width (M)	Variable
2.4	Net area /student seat	2.3-2.7 M2 (net)					

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	8	Lux (on tables)	350	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type			
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Evantual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature (calculation)			-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	Yes		
4.2	Electrical supply	Lamp/ Neon light	8	Sockets	3	Plugs	8
4.3	Lighting type	Ceiling lamp	0	Neon tubes	6	Wall lighting	4
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Comput. network	PO	Computer plugs	1	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

5.1	Students	Double Tables	18	Chair	36	Single tables	18
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	4	Library	0	Book shelves	6

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	1	Screen	1
6.3	Workbench	Teacher	0	Student	0	Preparartion room	
6.4	Sanitary equipment	Sink	2	Washbasin	0	Shower	0
6.5	Built in cupboard	High cupboard	2	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Quiet room	Adjacent	Yes	In vicinity	No	Direct acces	Yes
7.2	Veranda	Adjacent	Yes	In vicity	No	Direct acces	Yes

Primary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	PR
	Ordinary classroom			Subject	TPS
	Area:	High density	Room: 1.2	Sheet	U02

1. FUNCTIONS

1.1	Room Name	General teaching classroom					
1.2	Cycle / level	Primary		Years	1 to 5		
1.3	Subjects	Mother tongue, mathematics, civic education					
1.4	Weekly load	36 Hours		Utilization rate	80 to 90 %		
1.5	Capacity	30 to 36	Places	Teacher(s)	1		

2. DIMENSIONS

2.1	Net area (M2)	58.48 M2 (net)		Gross area	61.70 M2 (gross)		
2.2	Height under ceiling	3.00 M		Volume	175.44 M3		
2.3	Shape(s) / dimensions	Rectangular		Length (M)	8.60	Width (M)	6.80
2.4	Net area /student seat	1.6-1.9 M2 (net)					

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	6	Lux (on tables)	350	Lux (blackboard)	450
3.3	Occultation	Curtains	No	Type			
3.4	Natural ventilation	Unilateral	No / yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Evantual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lamp/ Neon light	6	Sockets	2	Plugs	8
4.3	Lighting type	Ceiling lamp	0	Neon tubes	6	Wall lighting	0
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Comput. network	Yes	Computer plugs	4	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

5.1	Students	Double Tables	18	Chair	36	Stool	0
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	0
6.3	Workbench	Teacher	0	Student	0	Preparartion room	
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboard	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In vicinity	No	Direct acces	No
7.2	Preparation room	Adjacent	No	In vicity	No	Direct acces	No

Primary Education	TEACHING AND PEDAGOGICAL SUPPORT Natural science laboratory				Cycle	PR
					Subject	TPS
	Area:	High density	Room	1.5	Sheet	U03

1. FUNCTIONS

1.1	Room Name	Physics Laboratory; Chemistry laboratory; Biology Laboratory.					
1.2	Cycle / level	Primary		Years		1 to 5	
1.3	Subjects	Science demonstration courses					
1.4	Weekly load	36	Hours	Utilization rate		60 to 80	%
1.5	Capacity	30 to 36	Places	Teacher(s)		1	

2. DIMENSIONS

2.1	Net area (M2)	58.48	M2 (net)	Gross area	61.70	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	175.44	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	8.60	Width (M)	6.80
2.4	Net area /student seat	1.6-1.9	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	6	Lux (on tables)	400	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type		Black curtains	
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature (calculation)			-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	6	Sockets	2	Plugs	22
4.3	Lighting type	Ceiling lamp	0	Neon tubes	6	Wall lighting	0
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer networ	Yes	Computer plug	1	Cicuit breaker	0
4.6	Internet connection	Server hub	0		0	Wifi	0

5. FURNITURE

* for chemistry only

5.1	Students	Double Table	18	Chair	36	Stool	0
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	1
6.3	Workbench	Teacher	1	Student	0	Preparartion room	
6.4	Sanitary equipment	Sink	1	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	0	Low cubboard	1	Under bench	2
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct acces	No
7.2	Preparation room	Adjacent	Yes	In the vicinity	No	Direct acces	Yes

Primary Education	TEACHING AND PEDAGOGICAL SUPPORT Preparation room			Cycle	L/U SC
				Subject	TPS
	Area:	High density	Room: 1.6	Sheet	U06

1. FUNCTIONS

1.1	Room Name	Preparation room					
1.2	Cycle / level	Lower/Upper secondary		Year		0	
1.3	Subjects	Preparation of science practical works and demonstration courses					
1.4	Weekly load	36	Hours	Utilization rate		n.a	%
1.5	Capacity	0	Places	Teacher(s)		2	

2. DIMENSIONS

2.1	Net area (M2)	9.5	M2 net	Gross area		10.0225	M2 gross
2.2	Height under ceiling	3.00	M	Volume		28.5	M3
2.3	Shape(s) / dimensions	Rectangular / polygonal		Length (M)	3.80	Width (M)	2.50
2.4	Net area /student seat	n.a	M2 net				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	2	Lux (on tables)	450	Lux (blackboard)	n.a
3.3	Occultation	Curtains	No	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Eventual	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature (calculation)			-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	2	Sockets	2	Plugs	4
4.3	Lighting type	Ceiling lamp	0	Neon tubes	2	Wall lighting	2
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer networ	No	Computer plug	2	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

5.1	Students	Double Table	0	Chair	0	Stool	0
5.2	Teaching staff	Table	1	Chair	2	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	1	Book shelves	1

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Triptic	0
6.3	Workbench	Teacher	1	Student	0	Preparartion room	1
6.4	Sanitary equipment	Sink	1	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	2	Low cubboard	0	Under workbench	2
6.6	Coat hangers	Students	0	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct access	No
7.2	Preparation room	Adjacent	n.a	In the vicinity	n.a	Direct access	n.a

Preprimary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	PP
	Play area and classroom			Subject	TPS
	Area: Low density		Room: 1.1	Sheet	R01

1. FUNCTIONS

1.1	Room Name	Play area and classroom				
1.2	Cycle / level	Preprimary		Years	0	
1.3	Subjects	Music, painting, calculation, reading, games..				
1.4	Weekly load	36	Hours	Utilization rate	n.a	%
1.5	Capacity	24	Places	Teacher(s)	1	

2. DIMENSIONS

2.1	Net area (M2)	60	M2 (net)	Gross area	63.30	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	180	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	Variable	Width (M)	Variable
2.4	Net area /student seat	2.50	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	6	Lux (on tables)	350	Lux (blackboard)	450
3.3	Occultation	Curtains	No	Type			
3.4	Natural ventilation	Unilateral	No / yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	Yes		
4.2	Electrical supply	Lamp/ Neon ligh	6	Sockets	2	Plugs	6
4.3	Lighting type	Ceiling lamp	0	Neon tubes	4	Wall lighting	4
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Comput. network	Yes	Computer plugs	1	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

5.1	Students	Double Tables	12	Chair	24	Singla tables	12
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	3	Library	0	Book shelves	4

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	1	Screen	1
6.3	Workbench	Teacher	0	Student	0	Preparartion room	
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboard	High cupboard	1	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	24	Teacher	2		

7. ADDITIONAL SPACES

7.1	Quiet room	Adjacent	Yes	In vicinity	No	Direct acces	Yes
7.2	Veranda	Adjacent	Yes	In vicity	No	Direct acces	Yes

Primary Education	TEACHING AND PEDAGOGICAL SUPPORT Ordinary classroom			Cycle	PR
				Subject	TPS
	Area:	Low density	Room: 1.2	Sheet	R02

1. FUNCTIONS

1.1	Room Name	General teaching classroom				
1.2	Cycle / level	Primary		Years	1 to 5	
1.3	Subjects	Mother tongue, mathematics, civic education				
1.4	Weekly load	36 Hours		Utilization rate	80 to 90 %	
1.5	Capacity	24	Places	Teacher(s)	1	

2. DIMENSIONS

2.1	Net area (M2)	45.56 M2 (net)		Gross area	48.07 M2 (gross)	
2.2	Height under ceiling	3.00 M		Volume	136.68 M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	6.80	Width (M) 6.70
2.4	Net area /student seat	1.90 M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	4	Lux (on tables)	350	Lux (blackboard)	450
3.3	Occultation	Curtains	No	Type			
3.4	Natural ventilation	Unilateral	No / yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lamp/ Neon ligh	4	Sockets	2	Plugs	6
4.3	Lighting type	Ceiling lamp	0	Neon tubes	6	Wall lighting	0
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Comput. network	Yes	Computer plugs	4	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

5.1	Students	Double Tables	12	Chair	24	Stool	0
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	0
6.3	Workbench	Teacher	0	Student	0	Preparartion room	
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboard	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	24	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In vicinity	No	Direct acces	No
7.2	Preparation room	Adjacent	No	In vicity	No	Direct acces	No

Primary Education	TEACHING AND PEDAGOGICAL SUPPORT Natural science laboratory				Cycle	PR
					Subject	TPS
	Area:	Low density	Room	1.5	Sheet	R03

1. FUNCTIONS

1.1	Room Name	Physics Laboratory; Chemistry laboratory; Biology Laboratory.				
1.2	Cycle / level	Primary		Years	1 to 5	
1.3	Subjects	Science demonstration courses				
1.4	Weekly load	36	Hours	Utilization rate	60 to 80	%
1.5	Capacity	24	Places	Teacher(s)	1	

2. DIMENSIONS

2.1	Net area (M2)	45.56	M2 (net)	Gross area	48.07	M2 (gross)
2.2	Height under ceiling	3.00	M	Volume	136.68	M3
2.3	Shape(s) / dimensions	Rectangular		Length (M)	6.80	Width (M) 6.70
2.4	Net area /student seat	1.90	M2 (net)			

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	4	Lux (on tables)	400	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	4	Sockets	2	Plugs	16
4.3	Lighting type	Ceiling lamp	0	Neon tubes	4	Wall lighting	0
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	Yes	Computer plug	1	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

* for chemistry only

5.1	Students	Double Table	12	Chair	24	Stool	0
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	1
6.3	Workbench	Teacher	1	Student	0	Preparartion room	
6.4	Sanitary equipment	Sink	1	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	0	Low cubboard	1	Under bench	2
6.6	Coat hangers	Students	24	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct acces	No
7.2	Preparation room	Adjacent	Yes	In the vicinity	No	Direct acces	Yes

Primary Education	TEACHING AND PEDAGOGICAL SUPPORT Preparation room				Cycle	L SC
					Subject	TPS
	Area:	Low density	Room:	1.6	Sheet	R06

1. FUNCTIONS

1.1	Room Name	Preparation room					
1.2	Cycle / level	Lower/Upper secondary		Year		0	
1.3	Subjects	Preparation of science practical works and demonstration courses					
1.4	Weekly load	36	Hours	Utilization rate		n.a	%
1.5	Capacity	0	Places	Teacher(s)		1	

2. DIMENSIONS

2.1	Net area (M2)	9.5	M2 net	Gross area		10.0225	M2 gross
2.2	Height under ceiling	3.00	M	Volume		28.5	M3
2.3	Shape(s) / dimensions	Rectangular / polygonal		Length (M)	3.80	Width (M)	2.50
2.4	Net area /student seat	n.a	M2 net				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	2	Lux (on tables)	450	Lux (blackboard)	n.a
3.3	Occultation	Curtains	No	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Eventual	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	2	Sockets	2	Plugs	4
4.3	Lighting type	Ceiling lamp	0	Neon tubes	2	Wall lighting	1
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	No	Computer plug	2	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

5.1	Students	Double Table	0	Chair	0	Stool	0
5.2	Teaching staff	Table	1	Chair	2	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	1	Book shelves	1

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Triptic	0
6.3	Workbench	Teacher	1	Student	0	Preparartion room	1
6.4	Sanitary equipment	Sink	1	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	2	Low cubboard	0	Under workbench	2
6.6	Coat hangers	Students	0	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct access	No
7.2	Preparation room	Adjacent	n.a	In the vicinity	n.a	Direct access	n.a

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Ordinary classroom			Cycle	L/U SC
				Subject	TPS
	Area:	High density	Room: 1.1	Sheet	U01

1. FUNCTIONS

1.1	Room Name	General teaching classroom					
1.2	Cycle / level	Lower/Upper secondary		Years		0	
1.3	Subjects	Mother tongue, mathematics, civic education					
1.4	Weekly load	36	Hours	Utilization rate		n.a	%
1.5	Capacity	30 to 36	Places	Teacher(s)		1	

2. DIMENSIONS

2.1	Net area (M2)	58.48	M2 (net)	Gross area	61.70	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	175.44	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	8.60	Width (M)	6.80
2.4	Net area /student seat	1.7-2.0	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	6	Lux (on tables)	350	Lux (blackboard)	450
3.3	Occultation	Curtains	No	Type			
3.4	Natural ventilation	Unilateral	No/Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Evantual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lamp/ Neon ligh	6	Sockets	2	Plugs	8
4.3	Lighting type	Ceiling lamp	0	Neon tubes	6	Wall lighting	0
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Comput. network	Yes	Computer plugs	4	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	0	Wifi	0

5. FURNITURE

5.1	Students	Double Tables	18	Chair	36	Stool	0
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	0
6.3	Workbench	Teacher	0	Student	0	Preparartion room	
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboard	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In vicinity	No	Direct acces	No
7.2	Preparation room	Adjacent	No	In vicity	No	Direct acces	No

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	L/U SC
	Specialized classroom			Subject	TPS
	Area:	High density	Room: 1.2	Sheet	U02

1. FUNCTIONS

1.1	Room Name	History and geography room				
1.2	Cycle / level	Lower/Upper secondary	Years	6 to 9 / 10 to 12		
1.3	Subjects	History and Geography				
1.4	Weekly load	36 Hours	Utilization rate	70 to 90 %		
1.5	Capacity	30 to 36 Places	Teacher(s)	1		

2. DIMENSIONS

2.1	Net area (M2)	62.56 M2 (net)	Gross area	66.00 M2 (gross)		
2.2	Height under ceiling	3.00 M	Volume	187.68 M3		
2.3	Shape(s) / dimensions	Rectangular	Length (M)	9.20	Width (M)	6.80
2.4	Net area /student seat	1.7-2.0 M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	6	Lux (on tables)	350	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Possibly
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lighting points	6	Sockets	2	Plugs	12
4.3	Lighting type	Ceiling lamp	0	Neon tubes	6	Wall lighting	0
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	Yes	Computer plugs	4	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

5.1	Students	Double Table	18	Chair	36	Stool	2
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	3	Library	0	Book shelves	0

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	1
6.3	Workbench	Teacher	0	Student	0	Prepararion room	n.a
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In vicinity	No	Direct acces	No
7.2	Preparation room	Adjacent	No	In vicinity	No	Direct acces	No

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	L/U SC
	Language laboratory			Subject	TPS
	Area:	High density	Room: 1.4	Sheet	U03

1. FUNCTIONS

1.1	Room Name	Language laboratory					
1.2	Cycle / level	Lower/Upper secondary		Years		6 to 9 / 10 to 12	
1.3	Subjects	Languages					
1.4	Weekly load	36	Hours	Utilization rate		60 to 85	%
1.5	Capacity	30 to 36	Places	Teacher(s)		1	

2. DIMENSIONS

2.1	Net area (M2)	62.56	M2 (net)	Gross area	66.00	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	187.68	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	9.20	Width (M)	6.80
2.4	Net area /student seat	1.7-2.0	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Possibly
3.2	Artificial light	Lamps /neon ligh	8	Lux (on tables)	400	Lux (Whiteboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	Yes
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Possibly
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature	(calculation)		-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lighting points	8	Sockets	2	Plugs	20
4.3	Lighting type	Ceiling lamp	0	Neon tubes	6	Wall lighting	4
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	Yes	Computer plug	19	Cicuit breaker	Yes
4.6	Internet connection	Server hub	Yes		0	Wifi	Possibly

5. FURNITURE

5.1	Students	Single Table*	36	Chair	36	Stool	0
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

* Computer tables

6.1	Chalkboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	2	On feet	1	Screen	1
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	Eventual	In the vicinity	Yes	Direct acces	Eventual
7.2	Preparation room	Adjacent	No	In the vicinity	No	Direct acces	No

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Science laboratory			Cycle	L/U SC
				Subject	TPS
	Area:	High density	Room: 1.5, 1.7, 1.8	Sheet	U04

1. FUNCTIONS

1.1	Room Name	Physics Laboratory; Chemistry laboratory; Biology Laboratory.					
1.2	Cycle / level	Lower/Upper secondary		Years		6 to 9 / 10 to 12	
1.3	Subjects	Science demonstration courses and practical works					
1.4	Weekly load	36	Hours	Utilization rate		60 to 80	%
1.5	Capacity	30 to 36	18 Places	Teacher(s)		1	

2. DIMENSIONS

2.1	Net area (M2)	74.82	M2 (net)	Gross area	78.94	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	224.46	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	8.60	Width (M)	8.70
2.4	Net area /student seat	2.08 4.16	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	8	Lux (on tables)	400	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	8	Sockets	2	Plugs	22
4.3	Lighting type	Ceiling lamp	0	Neon tubes	8	Wall lighting	0
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	Yes	Computer plug	1	Cicuit breaker	0
4.6	Internet connection	Server hub	0		0	Wifi	0

5. FURNITURE

* for chemistry only

5.1	Students	Double Table	18	Chair	36	Stool	18
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	1
6.3	Workbench	Teacher	1	Student	0	Prepararion room	
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct acces	No
7.2	Preparation room	Adjacent	Yes	In the vicinity	No	Direct acces	Yes

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Preparation room (2 laboratories)			Cycle	L/U SC
				Subject	TPS
	Area: High density		Room: 1.6	Sheet	U05

1. FUNCTIONS

1.1	Room Name	Preparation room					
1.2	Cycle / level	Lower/Upper secondary		Year		6 to 9 / 10 to 12	
1.3	Subjects	Preparation of science practical works and demonstration courses					
1.4	Weekly load	36	Hours	Utilization rate		n.a	%
1.5	Capacity	0	Places	Teacher(s)		2	

2. DIMENSIONS

2.1	Net area (M2)	23.80	M2 net	Gross area		25.11	M2 gross
2.2	Height under ceiling	3.00	M	Volume		71.4	M3
2.3	Shape(s) / dimensions	Rectangular / polygonal		Length (M)	6.80	Width (M)	3.50
2.4	Net area /student seat	n.a	M2 net				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	4	Lux (on tables)	450	Lux (blackboard)	n.a
3.3	Occultation	Curtains	Non	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Eventual	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	4	Sockets	2	Plugs	4
4.3	Lighting type	Ceiling lamp	0	Neon tubes	2	Wall lighting	2
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	No	Computer plug	2	Cicuit breaker	0
4.6	Internet connection	Server hub	0		0	Wifi	0

5. FURNITURE

5.1	Students	Double Table	0	Chair	0	Stool	0
5.2	Teaching staff	Table	1	Chair	2	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	1	Book shelves	2

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Triptic	0
6.3	Workbench	Teacher	1	Student	0	Preparartion room	1
6.4	Sanitary equipment	Sink	2	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	6	Low cubboard	0	Under bench	4
6.6	Coat hangers	Students	0	Teacher	4		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct access	No
7.2	Preparation room	Adjacent	n.a	In the vicinity	n.a	Direct access	n.a

ATTACHMENTS

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Preparation room (1 laboratory)			Cycle	L/U SC
				Subject	TPS
	Area: High density		Room: 1.9	Sheet	U06

1. FUNCTIONS

1.1	Room Name	Preparation room					
1.2	Cycle / level	Lower/Upper secondary		Year		6 to 9 / 10 to 12	
1.3	Subjects	Preparation of science practical works and demonstration courses					
1.4	Weekly load	36	Hours	Utilization rate		n.a	%
1.5	Capacity	0	Places	Teacher(s)		2	

2. DIMENSIONS

2.1	Net area (M2)	36.04	M2 net	Gross area		38.02	M2 gross
2.2	Height under ceiling	3.00	M	Volume		108.12	M3
2.3	Shape(s) / dimensions	Rectangular / polygonal		Length (M)	6.80	Width (M)	5.30
2.4	Net area /student seat	n.a	M2 net				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	4	Lux (on tables)	450	Lux (blackboard)	n.a
3.3	Occultation	Curtains	No	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Eventual	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	4	Sockets	2	Plugs	4
4.3	Lighting type	Ceiling lamp	0	Neon tubes	2	Wall lighting	2
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	No	Computer plug	2	Cicuit breaker	0
4.6	Internet connection	Server hub	0		0	Wifi	0

5. FURNITURE

5.1	Students	Double Table	0	Chair	0	Stool	0
5.2	Teaching staff	Table	1	Chair	2	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	1	Book shelves	2

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Triptic	0
6.3	Workbench	Teacher	1	Student	0	Prepararion room	1
6.4	Sanitary equipment	Sink	2	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	4	Low cubboard	0	Under workbench	4
6.6	Coat hangers	Students	0	Teacher	4		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct access	No
7.2	Preparation room	Adjacent	n.a	In the vicinity	n.a	Direct access	n.a

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Arts and design room			Cycle	L/U SC
				Subject	TPS
	Area:	High density	Room: 1.10	Sheet	U07

1. FUNCTIONS

1.1	Room Name	Arts and craft					
1.2	Cycle / level	Lower/Upper secondary			Years	6 to 9 / 10 to 12	
1.3	Subjects	Arts and drawing					
1.4	Weekly load	36	Hours		Utilization rate	60 to 80	%
1.5	Capacity	30 to 36	Places		Teacher(s)	1	

2. DIMENSIONS

2.1	Net area (M2)	75.05	M2 (net)		Gross area	79.18	M2 (gross)
2.2	Height under ceiling	3.00	M		Volume	225.15	M3
2.3	Shape(s) / dimensions	Polygonal/ Rectangular			Length (M)	9.50	Width (M) 7.90
2.4	Net area /student seat	2.08	2.50	M2 (net)			

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Possibly
3.2	Artificial light	Lamps /neon ligh	8	Lux (on tables)	400	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Possibly
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature (calculation)			-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	8	Sockets	2	Plugs	12
4.3	Lighting type	Ceiling lamp	8	Neon tubes	0	Wall lighting	4
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwo	Yes	Computer plug	1	Cicuit breaker	0
4.6	Internet connection	Server hub	0		0	Wifi	0

5. FURNITURE

5.1	Students	Single Table*	36	Chair	18	Stool	36
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

* Special drawing tables

6.1	Blackboard	Fixed	2	On feet	1	Tryptic	0
6.2	White board	Fixed	1	On feet	1		
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	2	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	3	Low cubboard	0	Under workbench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct acces	No
7.2	Preparation room	Adjacent	No	In the vicinity	No	Direct acces	No

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Music room			Cycle	L/U SC
				Subject	TPS
	Area:	High density	Room: 1.11	Sheet	U08

1. FUNCTIONS

1.1	Room Name	Music room					
1.2	Cycle / level	Lower/Upper secondary		Years		6 to 9 / 10 to 12	
1.3	Subjects	Music					
1.4	Weekly load	36	Hours	Utilization rate		60 to 80	%
1.5	Capacity	30 to 36	Places	Teacher(s)		1	

2. DIMENSIONS

2.1	Net area (M2)	75.05	M2 (net)	Gross area	79.18	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	225.15	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	9.50	Width (M)	7.90
2.4	Net area /student seat	2.08 2.50	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Eventual
3.2	Artificial light	Lamps /neon ligh	8	Lux (on tables)	400	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	Yes	Walls	Yes	Ceiling	Yes
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lighting points	8	Sockets	2	Plugs	12
4.3	Lighting type	Ceiling lamp	0	Neon tubes	6	Wall lighting	4
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	Yes	Computer plug	1	Cicuit breaker	0
4.6	Internet connection	Server hub	0		0	Wifi	0

5. FURNITURE

5.1	Students	Single Table*	36	Chair	36	Stool	18
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	2	Library	0	Book shelves	0

6. FIXED EQUIPMENT

* Special drawing tables

6.1	Blackboard	Fixed	2	On feet	1	Tryptic	0
6.2	White board	Fixed	1	On feet	1	Screen	1
6.3	Workbench	Teacher	0	Student	0	Prepararion room	n.a
6.4	Sanitary equipment	Sink	2	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	3	Low cubboard	0	Under workbench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct acces	No
7.2	Preparation room	Adjacent	No	In the vicinity	No	Direct acces	No

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	L/U SC
	Computer room			Subject	TPS
	Area:	High density	Room: 1.12	Sheet	U09

1. FUNCTIONS

1.1	Room Name	Computer room					
1.2	Cycle / level	Lower/Upper secondary		Years		6 to 9 / 10 to 12	
1.3	Subjects	Information technology					
1.4	Weekly load	36	Hours	Utilization rate		60 to 80	%
1.5	Capacity	15 to 18	Places	Teacher(s)		1	

2. DIMENSIONS

2.1	Net area (M2)	42.16	M2 (net)	Gross area	44.48	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	126.48	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	6.80	Width (M)	6.20
2.4	Net area /student seat	2.3-2.8	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Eventual
3.2	Artificial light	Lamps /neon ligh	8	Lux (on tables)	400	Lux (Whiteboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	Yes
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature (calculation)			-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lighting points	8	Sockets	2	Plugs	20
4.3	Lighting type	Ceiling lamp	0	Neon tubes	4	Wall lighting	4
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	Yes	Computer plug	20	Cicuit breaker	Yes
4.6	Internet connection	Server hub	Yes		0	Wifi	Eventual

5. FURNITURE

5.1	Students	Single Table*	36	Chair (turning)	18	Stool	0
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

* Computer tables

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	2	On feet	1		
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	18	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct acces	No
7.2	Preparation room	Adjacent	No	In the vicinity	No	Direct acces	No

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Library and media center			Cycle	L/U SC
				Subject	TPS
	Area:	High density	Room: 1.13 to 1.15	Sheet	U10

1. FUNCTIONS

1.1	Room Name	Library and media center					
1.2	Cycle / level	Lower and Upper secondary			Years	6 to 9 / 10 to 12	
1.3	Subjects	Reading, research, group study					
1.4	Weekly load	48	Hours	Utilization rate		Variable	%
1.5	Capacity	20% of st.no	Places	Librarian		1	

2. DIMENSIONS

2.1	Net area (M2)	Variable	M2 (net)	Gross area	Variable	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	Variable	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)		Width (M)	
2.4	Net area /student seat	1.40	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Eventual
3.2	Artificial light	Lamps /neon ligh	Variable	Lux (on tables)	400	Lux (Whiteboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	Yes
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lighting points	Variable	Sockets	Variable	Plugs	20
4.3	Lighting type	Ceiling lamp	0	Neon tubes	Variable	Wall lighting	4
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	Yes	Computer plug	Variable	Cicuit breaker	Yes
4.6	Internet connection	Server hub	Yes		0	Wifi	Eventual

5. FURNITURE

5.1	Students	Single Table	Variable	Chair	Variable	Stool	0
5.2	Staff	Table	1	Chair	2	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	Variable	Book shelves	Variable

6. FIXED EQUIPMENT

* Computer tables

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	2	On feet	3	Screen	2
6.3	Workbench	Teacher	0	Student	0	Prepararion room	n.a
6.4	Sanitary equipment	Sink	0	Washbasin	1	Shower	0
6.5	Built in cupboards	High cupboard	3	Low cubboard	0	Under workbench	0
6.6	Coat hangers	Students	Variable	Librairian	2	Teachers	Variable

7. ADDITIONAL SPACES

7.1	Book Store	Adjacent	Yes	In the vicinity	No	Direct acces	Yes
7.2	Librarian office	Adjacent	Yes	In the vicinity	No	Direct acces	Yes

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Sport hall			Cycle	L/U SC
				Subject	TPS
	Area:	High density	Room: 1.17 to 1.21	Sheet	U11

1. FUNCTIONS

1.1	Room Name	Library and media center					
1.2	Cycle / level	Lower and Upper secondary		Years		6 to 9 / 10 to 12	
1.3	Subjects	Reading, research, group study					
1.4	Weekly load	48	Hours	Utilization rate		60 to 80	%
1.5	Capacity	72	Places	Teacher(s)		2	

2. DIMENSIONS

2.1	Net area (M2)	576	M2 (net)	Gross area	607.68	M2 (gross)	
2.2	Height under ceiling	7.00	M minimum	Volume	4032	M3 minimum	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	32.00	Width (M)	18.00
2.4	Net area /student seat	8.00	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Eventual
3.2	Artificial light	Lamps /neon ligh	Variable	Lux (on floor)	250	Lux (Whiteboard)	n.a
3.3	Occultation	Curtains	No	Type	n.a		
3.4	Natural ventilation	Unilateral	No	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	Yes	Walls	No	Ceiling	No
3.7	Heating	Inside Temp.	+15°	Outside minimum temperature (calculation)			-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	Variable	Sockets	Variable	Plugs	Variable
4.3	Lighting type	Ceiling lamp	Variable	Neon tubes	Variable	Wall lighting	Variable
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	No	Computer plug	No	Cicuit breaker	No
4.6	Internet connection	Server hub	No		0	Wifi	No

5. FURNITURE

5.1	Students	Single Table	No	Chair	No	Stool	0
5.2	Staff	Table	1	Chair	2	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	No	Book shelves	No

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	0
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	0	Washbasin	2	Shower	0
6.5	Built in cupboards	High cupboard	2	Low cubboard	0	Under workbench	0
6.6	Coat hangers	Students	36	Teacher	2	Teachers	

7. ADDITIONAL SPACES

7.1	Sanitary block with showers	Adjacent	Yes	In the vicinity	No	Direct acces	Yes
7.2	Teacher's office	Adjacent	Yes	In the vicinity	No	Direct acces	Yes

Lower Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT				Cycle	L SC
	Ordinary classroom				Subject	TPS
	Area:	Low density	Room:	1.1	Sheet	R01

1. FUNCTIONS

1.1	Room Name	General teaching classroom			
1.2	Cycle / level	Lower/Upper secondary	Years	6 to 9	
1.3	Subjects	Mother tongue, mathematics, civic education			
1.4	Weekly load	36 Hours	Utilization rate	80 to 90 %	
1.5	Capacity	24 Places	Teacher(s)	1	

2. DIMENSIONS

2.1	Net area (M2)	45.56 M2 (net)	Gross area	48.07 M2 (gross)	
2.2	Height under ceiling	3.00 M	Volume	136.68 M3	
2.3	Shape(s) / dimensions	Rectangular	Length (M)	6.80	Width (M) 6.70
2.4	Net area /student seat	1.90 M2 (net)			

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital No
3.2	Artificial light	Lamps /neon ligh	6	Lux (on tables)	350	Lux (blackboard) 450
3.3	Occultation	Curtains	No	Type		
3.4	Natural ventilation	Unilateral	No / yes	Bilateral	Yes	Volume/ Hour 1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation) -5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No	
4.2	Electrical supply	Lamp/ Neon light	4	Sockets	2	Plugs 6
4.3	Lighting type	Ceiling lamp	0	Neon tubes	6	Wall lighting 0
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm No
4.5	Information technology	Comput. network	Yes	Computer plugs	4	Cicuit breaker 0
4.6	Internet connection	Server hub	0	LAN	1	Wifi 0

5. FURNITURE

5.1	Students	Double Tables	12	Chair	24	Stool 0
5.2	Teaching staff	Table	1	Chair	1	Cupboard 1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves 0

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic 0
6.2	White board	Fixed	1	On feet	0	Screen 0
6.3	Workbench	Teacher	0	Student	0	Prepararion room
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower 0
6.5	Built in cupboard	High cupboard	0	Low cubboard	0	Under bench 0
6.6	Coat hangers	Students	24	Teacher	2	

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In vicinity	No	Direct acces No
7.2	Preparation room	Adjacent	No	In vicity	No	Direct acces No

Lower Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	L SC
	Specialized classroom			Subject	TPS
	Area:	Low density	Room: 1.2	Sheet	R02

1. FUNCTIONS

1.1	Room Name	History and geography room				
1.2	Cycle / level	Lower/Upper secondary		Years	6 to 9	
1.3	Subjects	History and Geography				
1.4	Weekly load	36	Hours	Utilization rate	70 to 90	%
1.5	Capacity	24	Places	Teacher(s)	1	

2. DIMENSIONS

2.1	Net area (M2)	49.64	M2 (net)	Gross area	52.37	M2 (gross)
2.2	Height under ceiling	3.00	M	Volume	148.92	M3
2.3	Shape(s) / dimensions	Rectangular		Length (M)	7.30	Width (M) 6.80
2.4	Net area /student seat	2.07	M2 (net)			

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	4	Lux (on tables)	350	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Possibly
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lighting points	4	Sockets	2	Plugs	8
4.3	Lighting type	Ceiling lamp	0	Neon tubes	4	Wall lighting	0
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer networ	Yes	Computer plugs	2	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

5.1	Students	Double Table	12	Chair	24	Stool	2
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	3	Library	0	Book shelves	0

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	1
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	24	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In vicinity	No	Direct acces	No
7.2	Preparation room	Adjacent	No	In vicinity	No	Direct acces	No

Lower Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	L SC
	Language laboratory			Subject	TPS
	Area:	Low density	Room: 1.4	Sheet	R03

1. FUNCTIONS

1.1	Room Name	Language laboratory					
1.2	Cycle / level	Lower/Upper secondary		Years		6 to 9	
1.3	Subjects	Languages					
1.4	Weekly load	36	Hours	Utilization rate		60 to 85	%
1.5	Capacity	24	Places	Teacher(s)		1	

2. DIMENSIONS

2.1	Net area (M2)	49.64	M2 (net)	Gross area	52.37	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	148.92	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	7.30	Width (M)	6.80
2.4	Net area /student seat	2.07	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Possibly
3.2	Artificial light	Lamps /neon ligh	6	Lux (on tables)	400	Lux (Whiteboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	Yes
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Possibly
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lighting points	8	Sockets	2	Plugs	20
4.3	Lighting type	Ceiling lamp	0	Neon tubes	4	Wall lighting	4
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer networ	Yes	Computer plug	13	Cicuit breaker	Yes
4.6	Internet connection	Server hub	Yes	LAN	1	Wifi	Possibly

5. FURNITURE

5.1	Students	Single Table*	36	Chair	36	Stool	0
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

* Computer tables

6.1	Chalkboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	2	On feet	1	Screen	1
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	Eventual	In the vicinity	Yes	Direct acces	Evantual
7.2	Preparation room	Adjacent	No	In the vicinity	No	Direct acces	No

Lower & Upper Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	L SC
	Science laboratory			Subject	TPS
	Area:	Low density	Room: 1.5, 1.7, 1.8	Sheet	R04

1. FUNCTIONS

1.1	Room Name	Physics Laboratory; Chemistry laboratory; Biology Laboratory.					
1.2	Cycle / level	Lower/Upper secondary			Years	6 to 9 / 10 to 12	
1.3	Subjects	Science demonstration courses and practical works					
1.4	Weekly load	36		Hours	Utilization rate	60 to 80	%
1.5	Capacity	24	12	Places	Teacher(s)	1	

2. DIMENSIONS

2.1	Net area (M2)	57.62	M2 (net)		Gross area	60.79	M2 (gross)
2.2	Height under ceiling	3.00	M		Volume	172.86	M3
2.3	Shape(s) / dimensions	Rectangular			Length (M)	8.60	Width (M) 6.70
2.4	Net area /student seat	2.40	4.80	M2 (net)			

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	6	Lux (on tables)	400	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature (calculation)			-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	8	Sockets	2	Plugs	16
4.3	Lighting type	Ceiling lamp	0	Neon tubes	8	Wall lighting	0
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer networ	Yes	Computer plug	1	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

* for chemistry only

5.1	Students	Double Table	12	Chair	24	Stool	12
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	1	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	1
6.3	Workbench	Teacher	1	Student	0	Preparartion room	
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	24	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct acces	No
7.2	Preparation room	Adjacent	Yes	In the vicinity	No	Direct acces	Yes

Lower Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	L SC
	Preparation room (2 laboratories)			Subject	TPS
	Area:	Low density	Room: 1.6	Sheet	R05

1. FUNCTIONS

1.1	Room Name	Preparation room					
1.2	Cycle / level	Lower/Upper secondary		Year		6 to 9	
1.3	Subjects	Preparation of science practical works and demonstration courses					
1.4	Weekly load	36	Hours	Utilization rate		n.a	%
1.5	Capacity	0	Places	Teacher(s)		2	

2. DIMENSIONS

2.1	Net area (M2)	23.80	M2 net	Gross area		25.11	M2 gross
2.2	Height under ceiling	3.00	M	Volume		71.4	M3
2.3	Shape(s) / dimensions	Rectangular / polygonal		Length (M)	6.80	Width (M)	3.50
2.4	Net area /student seat	n.a	M2 net				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	4	Lux (on tables)	450	Lux (blackboard)	n.a
3.3	Occultation	Curtains	No	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Eventual	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	4	Sockets	2	Plugs	4
4.3	Lighting type	Ceiling lamp	0	Neon tubes	2	Wall lighting	2
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer networ	No	Computer plug	2	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

5.1	Students	Double Table	0	Chair	0	Stool	0
5.2	Teaching staff	Table	1	Chair	2	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	1	Book shelves	2

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Triptic	0
6.3	Workbench	Teacher	1	Student	0	Prepararion room	1
6.4	Sanitary equipment	Sink	2	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	6	Low cubboard	0	Under bench	4
6.6	Coat hangers	Students	0	Teacher	4		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct access	No
7.2	Preparation room	Adjacent	n.a	In the vicinity	n.a	Direct access	n.a

Lower Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Preparation room (1 laboratory)			Cycle	L SC
				Subject	TPS
	Area:	Low density	Room: 1.9	Sheet	R06

1. FUNCTIONS

1.1	Room Name	Preparation room					
1.2	Cycle / level	Lower/Upper secondary		Year		6 to 9	
1.3	Subjects	Preparation of science practical works and demonstration courses					
1.4	Weekly load	36	Hours	Utilization rate		n.a	%
1.5	Capacity	0	Places	Teacher(s)		1	

2. DIMENSIONS

2.1	Net area (M2)	17.00	M2 net	Gross area		17.94	M2 gross
2.2	Height under ceiling	3.00	M	Volume		51	M3
2.3	Shape(s) / dimensions	Rectangular / polygonal		Length (M)	6.80	Width (M)	2.50
2.4	Net area /student seat	n.a	M2 net				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	No
3.2	Artificial light	Lamps /neon ligh	2	Lux (on tables)	450	Lux (blackboard)	n.a
3.3	Occultation	Curtains	No	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Eventual	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	2	Sockets	2	Plugs	4
4.3	Lighting type	Ceiling lamp	0	Neon tubes	2	Wall lighting	1
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer networ	No	Computer plug	2	Cicuit breaker	0
4.6	Internet connection	Server hub	0		0	Wifi	0

5. FURNITURE

5.1	Students	Double Table	0	Chair	0	Stool	0
5.2	Teaching staff	Table	1	Chair	2	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	1	Book shelves	1

6. FIXED EQUIPMENT

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Triptic	0
6.3	Workbench	Teacher	1	Student	0	Preparartion room	1
6.4	Sanitary equipment	Sink	1	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	2	Low cubboard	0	Under workbench	2
6.6	Coat hangers	Students	0	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct access	No
7.2	Preparation room	Adjacent	n.a	In the vicinity	n.a	Direct access	n.a

Lower Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	L SC
	Arts and design room			Subject	TPS
	Area:	Low density	Room: 1.10	Sheet	R07

1. FUNCTIONS

1.1	Room Name	Arts and craft					
1.2	Cycle / level	Lower/Upper secondary		Years		6 to 9	
1.3	Subjects	Arts and drawing					
1.4	Weekly load	36	Hours	Utilization rate		60 to 80	%
1.5	Capacity	24	Places	Teacher(s)		1	

2. DIMENSIONS

2.1	Net area (M2)	55.08	M2 (net)	Gross area	58.11	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	165.24	M3	
2.3	Shape(s) / dimensions	Polygonal/ Rectangular		Length (M)	8.10	Width (M)	6.80
2.4	Net area /student seat	2.30	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Possibly
3.2	Artificial light	Lamps /neon ligh	8	Lux (on tables)	400	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Possibly
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	6	Sockets	2	Plugs	8
4.3	Lighting type	Ceiling lamp	6	Neon tubes	0	Wall lighting	2
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	Yes	Computer plug	1	Cicuit breaker	0
4.6	Internet connection	Server hub	0		0	Wifi	0

5. FURNITURE

5.1	Students	Single Table*	24	Chair	12	Stool	24
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

* Special drawing tables

6.1	Blackboard	Fixed	1	On feet	1	Tryptic	0
6.2	White board	Fixed	1	On feet	1		
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	2	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	3	Low cubboard	0	Under workbench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct acces	No
7.2	Preparation room	Adjacent	No	In the vicinity	No	Direct acces	No

Lower Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Music room			Cycle	L SC
				Subject	TPS
	Area:	Low density	Room: 1.11	Sheet	R08

1. FUNCTIONS

1.1	Room Name	Music room			
1.2	Cycle / level	Lower/Upper secondary	Years	6 to 9	
1.3	Subjects	Music			
1.4	Weekly load	36 Hours	Utilization rate	60 to 80 %	
1.5	Capacity	24 Places	Teacher(s)	1	

2. DIMENSIONS

2.1	Net area (M2)	55.08	M2 (net)	Gross area	58.11	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	165.24	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	8.10	Width (M)	6.80
2.4	Net area /student seat	2.30	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Eventual
3.2	Artificial light	Lamps /neon ligh	6	Lux (on tables)	400	Lux (blackboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	Yes	Walls	Yes	Ceiling	Yes
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lighting points	6	Sockets	2	Plugs	8
4.3	Lighting type	Ceiling lamp	0	Neon tubes	4	Wall lighting	2
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer networ	Yes	Computer plug	1	Cicuit breaker	0
4.6	Internet connection	Server hub	0	LAN	1	Wifi	0

5. FURNITURE

5.1	Students	Single Table*	24	Chair	24	Stool	12
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

* Special drawing tables

6.1	Blackboard	Fixed	1	On feet	1	Tryptic	0
6.2	White board	Fixed	1	On feet	1	Screen	1
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	2	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	3	Low cubboard	0	Under workbench	0
6.6	Coat hangers	Students	36	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct acces	No
7.2	Preparation room	Adjacent	No	In the vicinity	No	Direct acces	No

Lower Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT			Cycle	L SC
	Computer room			Subject	TPS
	Area:	Low density	Room: 1.12	Sheet	R09

1. FUNCTIONS

1.1	Room Name	Computer room				
1.2	Cycle / level	Lower/Upper secondary		Years	6 to 9	
1.3	Subjects	Information technology				
1.4	Weekly load	36	Hours	Utilization rate	60 to 80	%
1.5	Capacity	12	Places	Teacher(s)	1	

2. DIMENSIONS

2.1	Net area (M2)	32.3	M2 (net)	Gross area	34.08	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	96.9	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	6.80	Width (M)	4.75
2.4	Net area /student seat	2.69	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Eventual
3.2	Artificial light	Lamps /neon ligh	4	Lux (on tables)	400	Lux (Whiteboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation		No	Ceiling Fans	No	Air conditioning	Yes
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lighting points	4	Sockets	2	Plugs	20
4.3	Lighting type	Ceiling lamp	0	Neon tubes	4	Wall lighting	2
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	Yes	Computer plug	13	Cicuit breaker	Yes
4.6	Internet connection	Server hub	Yes	LAN	1	Wifi	Eventual

5. FURNITURE

5.1	Students	Single Table*	12	Chair (turning)	12	Stool	0
5.2	Teaching staff	Table	1	Chair	1	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	0	Book shelves	0

6. FIXED EQUIPMENT

* Computer tables

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	2	On feet	1		
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	0	Washbasin	0	Shower	0
6.5	Built in cupboards	High cupboard	0	Low cubboard	0	Under bench	0
6.6	Coat hangers	Students	12	Teacher	2		

7. ADDITIONAL SPACES

7.1	Store	Adjacent	No	In the vicinity	Yes	Direct acces	No
7.2	Preparation room	Adjacent	No	In the vicinity	No	Direct acces	No

Lower Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Library and media center			Cycle	L SC
				Subject	TPS
	Area:	Low density	Room: 1.13 to 1.15	Sheet	R10

1. FUNCTIONS

1.1	Room Name	Library and media center					
1.2	Cycle / level	Lower and Upper secondary			Years	6 to 9	
1.3	Subjects	Reading, research, group study					
1.4	Weekly load	48	Hours	Utilization rate		Variable	%
1.5	Capacity	20% of st.	Places	Librarian		1	

2. DIMENSIONS

2.1	Net area (M2)	Variable	M2 (net)	Gross area	Variable	M2 (gross)	
2.2	Height under ceiling	3.00	M	Volume	Variable	M3	
2.3	Shape(s) / dimensions	Rectangular		Length (M)		Width (M)	
2.4	Net area /student seat	1.40	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Eventual
3.2	Artificial light	Lamps /neon ligh	Variable	Lux (on tables)	400	Lux (Whiteboard)	450
3.3	Occultation	Curtains	Yes	Type	Black curtains		
3.4	Natural ventilation	Unilateral	Yes	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	Yes
3.6	Accoustic insulation	Floors	No	Walls	No	Ceiling	Eventual
3.7	Heating	Inside Temp.	+19°	Outside minimum temperature (calculation)			-5°C

4. UTILITIES

4.1	Water supply	Cold	No	Hot	No		
4.2	Electrical supply	Lighting points	Variable	Sockets	Variable	Plugs	20
4.3	Lighting type	Ceiling lamp	0	Neon tubes	Variable	Wall lighting	4
4.4	Low voltage electr.	Telephone	Yes	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer networ	Yes	Computer plug	Variable	Cicuit breaker	Yes
4.6	Internet connection	Server hub	Yes	LAN	1	Wifi	Eventual

5. FURNITURE

5.1	Students	Single Table	Variable	Chair	Variable	Stool	0
5.2	Staff	Table	1	Chair	2	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	Variable	Book shelves	Variable

6. FIXED EQUIPMENT

* Computer tables

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	2	On feet	3	Screen	2
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	0	Washbasin	1	Shower	0
6.5	Built in cupboards	High cupboard	3	Low cubboard	0	Under workbench	0
6.6	Coat hangers	Students	Variable	Librairian	2	Teachers	Variable

7. ADDITIONAL SPACES

7.1	Book Store	Adjacent	Yes	In the vicinity	No	Direct acces	Yes
7.2	Librarian office	Adjacent	Yes	In the vicinity	No	Direct acces	Yes

Lower Secondary Education	TEACHING AND PEDAGOGICAL SUPPORT Sport hall			Cycle	L SC
				Subject	TPS
	Area:	Low density	Room: 1.17 to 1.21	Sheet	R11

1. FUNCTIONS

1.1	Room Name	Library and media center					
1.2	Cycle / level	Lower and Upper secondary			Years	6 to 9	
1.3	Subjects	Recreation and sport activities					
1.4	Weekly load	48	Hours	Utilization rate		60 to 80	%
1.5	Capacity	48	Places	Teacher(s)		2	

2. DIMENSIONS

2.1	Net area (M2)	480	M2 (net)	Gross area	Variable	M2 (gross)	
2.2	Height under ceiling	7.00	M minimum	Volume		M3 minimum	
2.3	Shape(s) / dimensions	Rectangular		Length (M)	30.00	Width (M)	16.00
2.4	Net area /student seat	10.00	M2 (net)				

3. COMFORT LEVEL

3.1	Natural light	Unilateral	Yes	Bilateral	Yes	Zenital	Eventual
3.2	Artificial light	Lamps /neon ligh	Variable	Lux (on floor)	250	Lux (Whiteboard)	n.a
3.3	Occultation	Curtains	No	Type	n.a		
3.4	Natural ventilation	Unilateral	No	Bilateral	Yes	Volume/ Hour	1
3.5	Artificial ventilation			Ceiling Fans	No	Air conditioning	No
3.6	Accoustic insulation	Floors	Yes	Walls	No	Ceiling	No
3.7	Heating	Inside Temp.	+15°	Outside minimum temperature		(calculation)	-5°C

4. UTILITIES

4.1	Water supply	Cold	Yes	Hot	No		
4.2	Electrical supply	Lighting points	Variable	Sockets	Variable	Plugs	Variable
4.3	Lighting type	Ceiling lamp	Variable	Neon tubes	Variable	Wall lighting	Variable
4.4	Low voltage electr.	Telephone	No	Safety lighting	Yes	Alarm	No
4.5	Information technology	Computer netwoı	No	Computer plug	No	Cicuit breaker	No
4.6	Internet connection	Server hub	No		0	Wifi	No

5. FURNITURE

5.1	Students	Single Table	No	Chair	No	Stool	0
5.2	Staff	Table	1	Chair	2	Cupboard	1
5.3	Both students and staff	Cupboard	1	Library	Variable	Book shelves	Variable

6. FIXED EQUIPMENT

* Computer tables

6.1	Blackboard	Fixed	0	On feet	0	Tryptic	0
6.2	White board	Fixed	1	On feet	0	Screen	0
6.3	Workbench	Teacher	0	Student	0	Preparartion room	n.a
6.4	Sanitary equipment	Sink	0	Washbasin	2	Shower	0
6.5	Built in cupboards	High cupboard	2	Low cubboard	0	Under workbench	0
6.6	Coat hangers	Students	Variable	Librairian	2	Teachers	

7. ADDITIONAL SPACES

7.1	Sanitary block with showers	Adjacent	Yes	In the vicinity	No	Direct acces	Yes
7.2	Teacher's office	Adjacent	Yes	In the vicinity	No	Direct acces	Yes

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