

Design Note 5: Fitness Room





Fitness Room

The fitness room should, where possible, be adjacent to the physical education classroom.

Use

The existence of a well-equipped fitness room in a physical education department provides an environment in which pupils can focus on preparation for physical activity and on how their bodies react to this activity. The effects can be monitored in a controlled environment, lessons learned and theories tested. Used together with the classroom, it also offers opportunities to use video and other aids to help pupils appreciate, analyse and improve performance. For example, pupils may learn theory in the classroom and then test this in practice in the fitness room, or work in the fitness room can be written-up and discussed in the classroom immediately afterwards.

Community use of the fitness facilities will predominantly involve use of the equipment on an individual basis, although some programming of classes for instruction or by group (for example over 50's or women only) is also likely. Use of the facility linked to a GP exercise referral scheme is also possible.

Dimensions

For teaching purposes, a fitness room of at least 105 sq m is required. Workable proportions of such a room might be 7m by 15m. A rectangular shape is generally better than square, although the length/width ratio should not exceed 3:1. A ceiling height of 3.5m will make the space appear generous rather than cramped, avoid feelings of 'stiffness' and provide adequate clearances for equipment delivery and use.

These recommended dimensions are based on a studio with 16 pieces of equipment for educational use and the school's requirement for a relatively large area of free floor space. If community demand at peak times is likely to require more equipment than is required by the school, this extra equipment should be provided and the studio dimensions should be increased accordingly: the room should not be crammed full of equipment.

Equipment

For teaching purposes it is important that the range of equipment matches the range of investigation in the teaching programme. A balance is required between machines catering for cardiovascular or aerobic exercise and those providing resistance for body conditioning, as is a balance within those resistance machines to provide overall body conditioning.

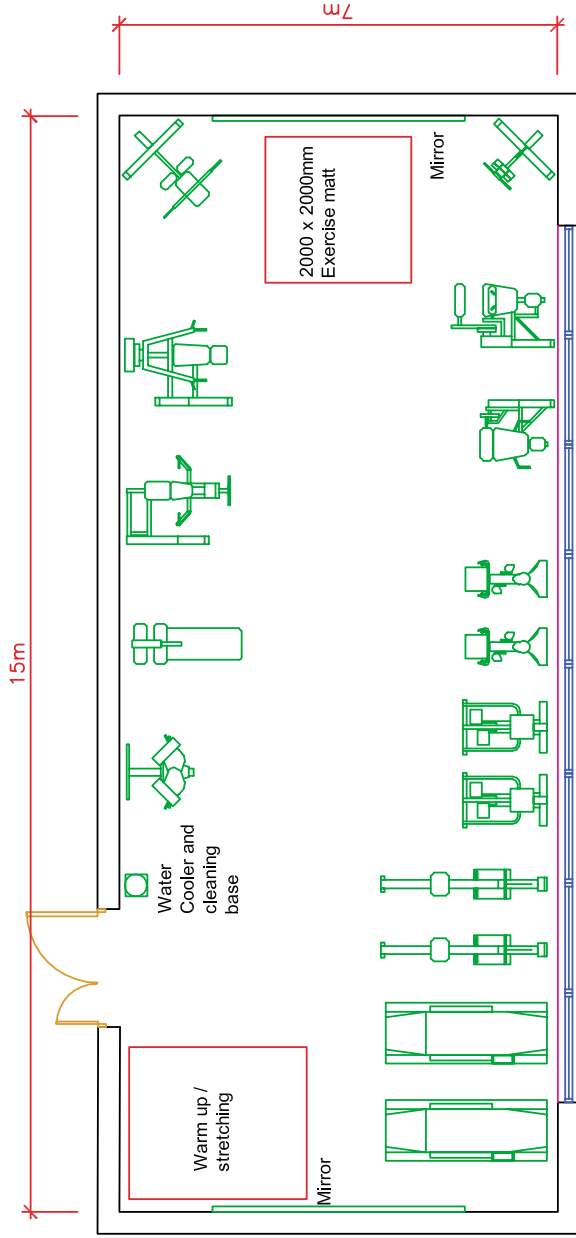
The specific balance of machines chosen can vary, but an even split between cardiovascular and resistance equipment will suit school needs. Current guidance for fitness rooms for community use, however, suggests 60% cardiovascular and 40% resistance. If providing additional equipment to meet community needs, cardiovascular equipment should therefore probably be the priority.

A drinking fountain or chilled drinking water unit should be provided, as should paper towel dispensers and disinfectant so that users may wipe down equipment after use. An integrated sound system and TV screens are recommended for community use. Power sockets for equipment should be floor mounted and sited to avoid trailing flexes.

A free weights area may be provided if there appears to be sufficient community demand. This should be a separate room. An allowance of 9 sq.m for each user is required, plus space for benches, stands and storage racks. A minimum height of 4m is recommended.



Classroom / Clubroom adjacent or nearby



Drawing 05: Fitness Room



Floor

Floor loadings must be assessed carefully: exercise machines can weigh several hundred kilograms. Shock and vibration from dropped weights and treadmills and from weight stacks coming to rest must also be considered. The sound and vibration caused by these actions can be a nuisance if transmitted to adjoining spaces, particularly any directly below.

The floor must therefore be robust and non-brittle, and its design (and the design of equipment bases) should take account of any requirements to limit noise transfer. Some items of equipment may also require floor fixing. The floor finish should be durable, non-slip and provide high traction. It must also withstand heavy cleaning and the use of cleansing agents. Hardwood or laminate flooring, cushion vinyl, carpet tiles or easy-clean carpet are suitable finishes. Free weight areas are usually covered with high density rubber matting or with laminated plywood platforms.

The use of split levels should be avoided as height changes may result in accidents and obstruct access by wheelchair users. Steps also make moving heavy equipment potentially dangerous. Activity zones can instead be denoted by the use of different floor colourings or materials. Equipment should be accessible to and suitable for disabled users wherever possible.

Walls

Walls should be easily cleaned, durable and free of projections. A view out is desirable, but the requirement for privacy requires views in to be controlled by the position or height of windows or by the use of one-way glazing. Some equipment may also require to be bolted to the wall and the relevant loadings must be considered at an early stage. Safety glass mirrors should be fitted on the walls at the warm-up areas. Door openings should be large enough to ensure the safe transportation of equipment.



Health and fitness advice, warm-up/down posters, schedules, advisory and safety notices should be displayed around the walls.



Environment

Lighting

A fitness studio should be brightly lit but with no harsh direct lights such as spot lamps shining in users' faces. An overall minimum average illuminance of 300 lux, good colour rendering and good control of glare should be provided. Lighting controls should be accessible to staff only.

Heating and Ventilation

A good ventilation system is essential in order to control temperature and humidity and maintain a comfortable environment. A temperature of around 12°C to 18°C is required. The ideal temperature for users of free weights and resistance machines is towards the higher end of this range, and towards the lower end for cardiovascular activity. These activities will normally be taking place concurrently within the fitness room and an optimum operating temperature of around 14°C to 16°C is therefore recommended. Ventilation systems for fitness

studios pose a particular design problem and must cope with considerable metabolic heat, body odours and humidity. A ventilation rate of at least 10-12 air changes per hour will be required. Temperature and humidity controls must be capable of wide variation and have the capacity to react swiftly.

Acoustic Considerations

The space must have good acoustic characteristics to allow teachers to communicate clearly with a class. Noise transmission to other activity spaces from the sound system and impact of weights must be avoided.

Control Desk

In some cases, it may be appropriate for a desk or staff station to be provided to store cleaning equipment, activity schedules and the like. This may also be used for managing use of the space and perhaps environmental and audio system controls.



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