

# SPACE TYPES & REQUIREMENTS



## Gymnasium

School Type:

### Functional Area Descriptions

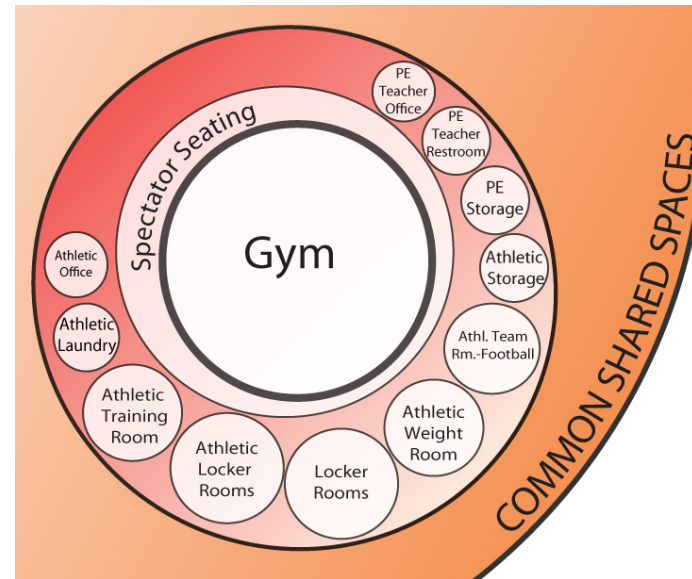
The focus of physical education has evolved to include all aspects of the healthy lifestyle of individuals. Physical education is therefore directed toward fitness and wellness through activity and theory-based instruction for nutrition and healthy lifestyle choices. Gym spaces should accommodate the evolving curriculum of physical education.

The gymnasium is an area that may be used for after-school events, so it should be able to function discretely from the remainder of the school building. Provide an interior gathering/meeting space directly adjacent to the gymnasium functions. The area should connect to both interior and exterior school circulation—it may be the common shared space, or a separate lobby area. Public restrooms should be located near the gymnasium and accessible for after school events.

### 1 Gymnasium

The gymnasium provides a dedicated space for physical education. Provide a clear ceiling height of 24 feet (7.32 m). Windows, light fixtures, and mechanical equipment must withstand the impact abuse of balls. Include recessed alcove with drinking fountains. A divider curtain is desirable to allow two activities to occur simultaneously.

Adjacency Diagram (High School)



Planning Requirements (varies - see Planning Requirements, Detailed at end of this Ed Spec)

Area Description	SF	M <sup>2</sup>	Notes
<b>Gymnasium</b>			
1 Gymnasium - ES	5,075	471	Provide two for enrollment >999
1 Gymnasium - MS	6,500	604	Provide two for enrollment >999
1 Gymnasium - HS	7,500	697	Provide two for enrollment >999
1 Spectator Seating	varies	varies	Refer to Spectator Seating table
2 Auxiliary Gym	2,500	232	For enrollment 700 - 999
3 PE Storage	varies	varies	Enrollment x 0.9, min 400
4 PE Teacher Office	100/teacher	9/teacher	Calculated in Staff Collaboration
5 PE Teacher Restroom	75	7	Provide two for enrollment >300
6 Locker Rooms - MS, HS (refer to Locker Calculations Table)	varies	varies	
<b>Athletic facilities - for enrollment &gt;199</b>			
7 Athletic Locker Rooms - HS	800	74	
8 Athletic Team Room, Football - HS	650	60	Where HS has a football team
9 Athletic Weight Room - HS	850	79	
10 Athletic Office - HS	varies	varies	100 SF (9 m <sup>2</sup> ) for every 300 students
11 Athletic Storage - HS	varies	varies	Enrollment x 0.7, min 300
12 Athletic Laundry - HS	100	9	
13 Athletic Training Room - HS	200	19	

### Elementary Schools – ES

The gymnasium at the elementary school does not require space for competition sports. The curriculum at this age is more skills-based. If basketball court markings are provided, the largest court that can be accommodated is 42 feet x 74 feet (12.8 m x 22.6 m). Six basketball goals shall be provided. At least two shall be adjustable in the 6—8 foot (1.8—2.4 m) range and two shall be adjustable in the 8—10 feet (2.4—3.1 m) range. Positioning of these goals should allow for concurrent use by small groups of students. Multiple colored activity lines shall be provided.

### Middle Schools and High Schools – MS/HS

The gymnasium at the middle school or high school level should accommodate a 50 feet x 84 feet (15.2 m x 25.6 m) basketball court and a regulation volleyball court. Provide a minimum of 10 feet (3.1 m) out-of-bounds at the ends of the court and 6 feet (1.8 m) at the sides. Six basketball goals shall be provided. There is no requirement for these goals to be adjustable. Depending on the arrangement of spectator seating, retractable goals may be required on the cross courts. Supply additional lines to accommodate the educational program.

### Spectator Seating

A small amount of seating, even in elementary school (non-competition) gymnasiums, allows for community use of the facility. A minimum of 200 seats of telescoping bleachers shall be provided in all gymnasiums. Where no additional area is provided in the Planning Requirements table, the bleachers will extend onto the court area when open. In gymnasiums intended for competition sports,

additional area for spectator seating is indicated and the bleachers may not encroach on the safety area of the court when fully extended.

### **2 Auxiliary Gym**

This space may be used for dancing classes, exercise, gymnastics, table tennis, wrestling, and other activities. For middle schools and high schools the auxiliary gym should accommodate a 38 feet x 38 feet (11.6 m x 11.6 m) wrestling mat and overhead mat storage should be provided. The ceiling should be 24 feet (7.32 m) high if possible, or a minimum of 16 feet (4.9 m).

### **3 Physical Education Storage**

The storage area provides storage for PE equipment. The room should include a pair of doors for a minimum 6-feet (1.8 m) wide opening, directly adjacent to the main gymnasium. Where possible it should also include doors to the exterior for storage of equipment used on the fields.

### **4 Physical Education Teacher Office**

This space should be near the entry to the gymnasium with a view window from the office into the gymnasium.

### **5 Physical Education Teacher Restroom**

Provide male and female teacher restrooms with showers and changing area near the gymnasium. These restrooms should be easily accessible to all staff members without entering the teacher office. Where only one PE teacher is assigned, provide one uni-sex teacher restroom with shower. If these restroom/shower facilities are accessible to all staff, they will



► Gymnasium and Athletic Seating: Grayslake North High School, FGM Architects, Grayslake, IL



► Gymnasium and Athletic Seating: St. Joseph School, FGM Architects, St. Joseph, IL

NOTE: Images shown are intended to provide real-world examples and spark design creativity.

fulfill the shower requirement for the alternative transportation LEED credit; bicycle storage and changing rooms.

### 6 Locker Rooms – MS/HS

Locker rooms provide space for students to change clothing and store personal belongings while engaging in physical education or athletic events. Provide separate facilities for male and female students. Access the locker rooms directly from the court area or a supervised corridor. The locker rooms should also provide easy access to the exterior play fields. Consider privacy as well as easy supervision in the layout of the whole space.

*The following spaces shall be provided in high schools with competitive athletic programs. Middle schools with approved athletic programs (DoDEA-Americas) may also include these athletic spaces.*

### 7 Athletic Locker Rooms – HS

A separate area for athletic lockers shall be provided adjacent to the main locker room areas. These spaces can be contiguous, but the athletic lockers should all be grouped together in one area. Provide 48 – 15 inch x 15 inch (38 cm x 38 cm) athletic lockers for boys and the same for girls.

### 8 Athletic Team Room - Football – HS

Where the school has a competitive football team, a separate team locker room shall be provided to accommodate the larger equipment required for football. This space can be accessed from the main locker room, but should be able to be secured separately. Provide 30 – 24 inch x 18 inch (61 cm x 46

cm) athletic lockers at the perimeter of three sides of the room. Provide a marker board and bulletin board on the fourth wall for use in team meetings and strategy sessions.

### 9 Athletic Weight Room - HS

The weight room contains weight lifting apparatus and fitness equipment. Weight training consists of iron weights, barbells, dumbbells, flat benches, incline benches, squat machines, and other equipment. Fitness area consists of treadmills, stationary bikes, step machines, floor mats for stretching, calisthenics and aerobics, and other equipment. Free weight training or heavy lifting is delimited apart from fitness and may be in separate spaces. Provide adequate maneuvering clearance around equipment for safety.

### 10 Athletic Office - HS

Provide a shared office space for coaching staff.

### 11 Athletic Storage – HS

This storage area provides storage for equipment used by the athletic programs. The room may be divided with wire mesh partitions for separate storage areas for different sports. Additional storage may be provided at the concession/restroom facility near the athletic fields. This storage should be easily accessible to the athletic coaches.

### 12 Athletic Laundry - HS

Provide a small laundry facility for the cleaning of towels and uniforms. This area should be separate from the locker room area.



► Fitness Area: Mason High School, VSWC Architects, Mason, OH

### 13 Athletic Training Room - HS

A training room may be provided adjacent to the locker rooms. The training room contains injury treatment facilities. This space houses the trainer's area, whirlpool, treatment table, and related items.

### Specialized Features (include as required)

#### All Schools

- Basketball hoops (6)
- Wall padding - 6 feet (1.83 m) high—main court area, auxiliary gym
- Chinning bars
- Volleyball standards
- Acoustical panels
- Gym divider curtain

NOTE: Images shown are intended to provide real-world examples and spark design creativity.

MS/HS

- Main court basketball lines
- Main court volleyball lines
- Side court basketball lines
- Side court volleyball lines
- Side court badminton
- Lockers
- Benches
- Overhead mat storage

Schools with athletic program – HS and some MS

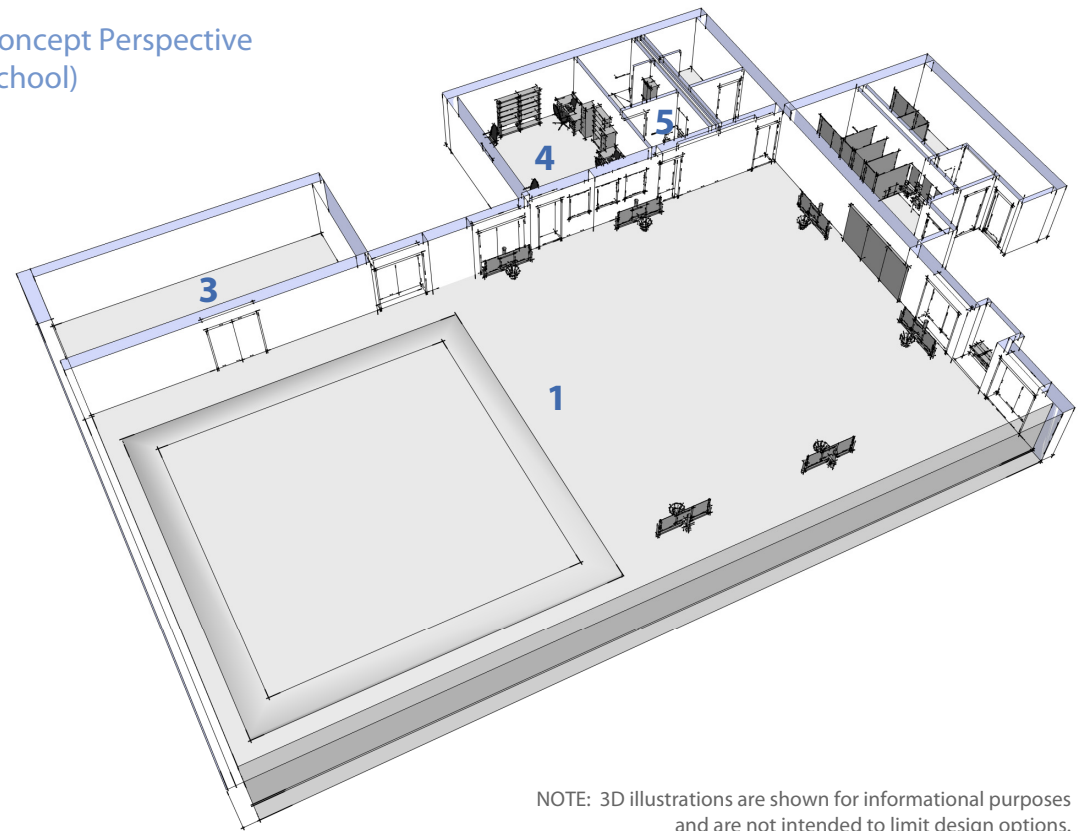
- Scoreboard (2 each min)
- Basketball shot clocks
- Hydrotherapy tubs
- Fitness equipment
- Mirrors in locker room and weight room
- Interlocking rubber tiles under weight equipment



► Professional Development/Instruction: Mason High School, VSWC Architects, Mason, OH

NOTE: Images shown are intended to provide real-world examples and spark design creativity.

Gymnasium Concept Perspective (Elementary School)

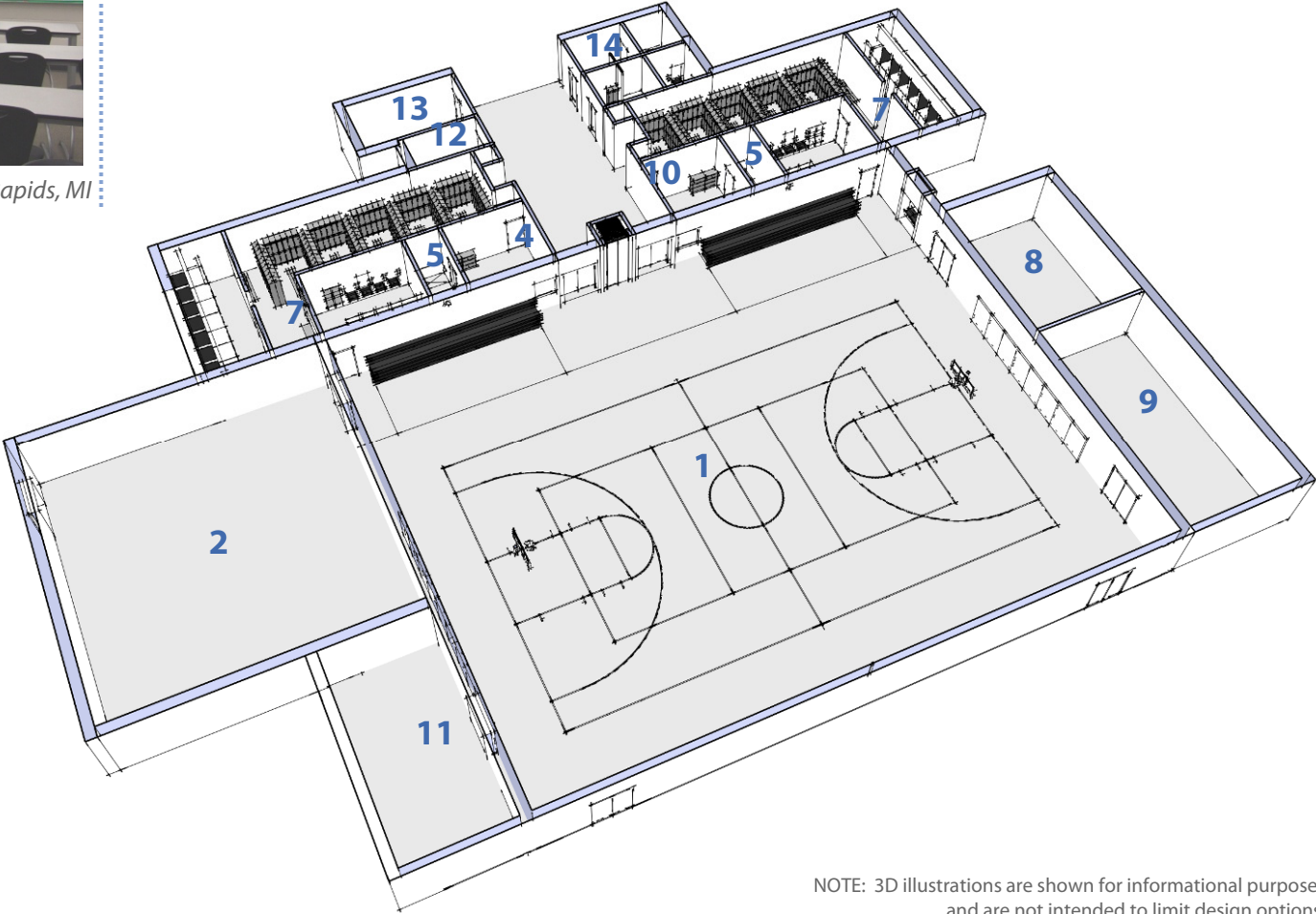


NOTE: 3D illustrations are shown for informational purposes and are not intended to limit design options.



Health Classroom: Ford Middle School, Grand Rapids, MI

Gymnasium Concept Perspective (Middle and High School)



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Planning Requirements, Detailed

Imperial (English) Units												
Spectator Seating		0-99	100-199	200-299	300-399	400-499	500-599	600-699	700-799	800-899	900-999	1000+
1	ES - Spectator Seating	-	-	-	-	-	-	-	-	-	-	-
1	MS - Spectator Seating	-	-	800	800	800	800	800	800	800	800	800
1	HS - Spectator Seating	800	800	1,200	1,600	2,000	2,400	2,800	3,200	3,600	4,000	4,400
Metric Units												
Spectator Seating		0-99	100-199	200-299	300-399	400-499	500-599	600-699	700-799	800-899	900-999	1000+
1	ES - Spectator Seating	0	0	0	0	0	0	0	0	0	0	0
1	MS - Spectator Seating	0	0	74	74	74	74	74	74	74	74	74
1	HS - Spectator Seating	74	74	111	149	186	223	260	297	334	372	409
<b>Notes:</b>												
ES - Provide telescoping bleachers for 200 students. Bleachers will extend onto the court when open. This gym is not intended for competition sports.												
MS - Provide telescoping bleachers for 200 students. Where additional area is indicated, bleachers shall not encroach on the safety area around the court when fully extended.												
HS - Minimum # of bleacher seats		200	200	300	400	500	600	700	800	900	1000	1100

enrollment range	# of lockers (single - M or F)	type of lockers	locker size	approximate room dimensions	sf/locker area (single - M or F)	tt/urinal count (single - M or F)	sf/toilet (single - M or F)	shower count (single - M or F)	sf/shower (single - M or F)	sf/locker-toilet-shower (total of shaded columns)	Single Locker Room Total (rounded up to nearest 25 sf)	Locker Room Total sf Male and Female	Locker Room Total m <sup>2</sup> Male and Female
0-99	60	30 double tier	12x12	23x8	184	2	105	2	105	394	400	800	74
100-199	120	60 double tier	12x12	23x16	368	3	145	3	150	663	675	1350	125
200-299	180	(36) 5-tier/full	(2)12x12	26x16	416	4	185	4	195	796	800	1600	149
300-399	240	(48) 5-tier/full	(2)12x12	34x16	544	5	225	5	240	1009	1025	2050	190
400-499	300	(30) 5-tier/5-tier/full	(3)12x12	33x16	528	6	265	6	285	1078	1100	2200	204
500-599	360	(36) 5-tier/5-tier/full	(3)12x12	26x24	624	8	345	8	375	1344	1350	2700	251
600-699	420	(42) 5-tier/5-tier/full	(3)12x12	33x24	792	9	385	9	420	1597	1600	3200	297
700-799	480	(48) 5-tier/5-tier/full	(3)12x12	36x24	864	10	425	10	465	1754	1775	3550	330
800-899	540	(54) 5-tier/5-tier/full	(3)12x12	39x24	936	11	465	11	510	1911	1925	3850	358
900-999	600	(60) 5-tier/5-tier/full	(3)12x12	42x24	1008	12	505	12	555	2068	2075	4150	386

Plumbing fixtures shall be provided based on applicable building codes - calculations shown are based on 1:50 of the locker count