

## LODI UNIFIED SCHOOL DISTRICT

## LEARNING SPACES DESIGN STANDARDS

**JANUARY 2018** 



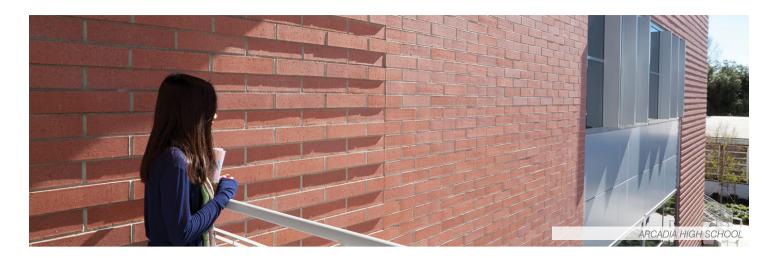
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## BACKGROUND

There is a recognition at the State level that school design, as we know it, requires revisioning. There is also acknowledgment that the Title 5 Education Code may restrict the new form that school designs may take to support 21st Century learners. CDE's requirement for the Plan Summary Form, provided by the local education agency, allows for dialogue about what is needed to support educational programs for today's and tomorrow's learners. Ultimately the development of a lasting and sustainable vision that supports the goals of the District's educational program, depends upon a well thought out Educational Vision.



## CONTENTS

Provided in this section are space programs for the Elementary, Middle and High Schools. The space programs identify the square footages that are intended for use in future campus development.

The purpose of the space programs is to provide a guideline for new construction or reconfiguration. The programs are based on an assumed school size in order to determine the adequate size of the core spaces such as the Kindergarten, and other support spaces. The square footages shown with the diagrams are <u>net areas only</u>.

One of the main purposes of these program enhancements is to describe clearly and concisely the various learning activities in each space, the spatial relationships, and the special features to support these activities.

The following categories for each space program component are described here in:

Provides a description of the functional goals of the space.

Describes the types of activities and user needs.

ACTIVIT

PROGRAM

Describes how the program is delivered.

Describes specific room characteristics, general shape and feel of the space.

Correlates the qualities of the space with specific program activities.

ADJACENCY DIAGRAMS

Shows a graphic representation of the spaces and how they could be organized as a group. Describes possible room features such as furniture, finishes and equipment that help support program functions.

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## **CDE REQUIREMENTS**

In 1994, California Department of Education (CDE) formalized regulations governing standards on the design and construction of new school facilities. Included in these regulations are requirements for the submittal of educational specifications (Facility Standards / Design Guidelines) – see California Code of Regulations, Title 5, Section 14034. The requirements are delineated in the Education Code Section 39101(c) and California Code of Regulations, Title 5, Section 14030(a). Specific school design standards are contained in the California Code of Regulations, Title 5, Section 14001, 14010 and 14030.

In 2009, CDE added a Plan Summary form for those projects applying for new construction funds from the State Allocation Board for a new school or additions to an existing school. In July 2010, all Educational Specifications (Facility Standards / Design Guidelines) were required to be approved by the District's Governing Board and submitted to CDE as part of any application for funding.

## IMPLEMENTATION

Even though this document represents a District-wide guideline, it is important that when these guidelines are implemented, that the administrators, faculty, students and community at each site are allowed to participate in the process and express their sitespecific program needs. Suggestions on how to improve or tailor this document for site-specific needs are critical as specific implementation plans are developed. It is understood that the degree of consistency between the site-specific solutions and the District-wide educational specifications may vary from site to site. Adjacencies shown in the space program diagrams following are suggested program placement but may vary from site to site based on existing conditions or program-specific solutions.

Once projects are authorized to proceed into the next phase of design, the impact of site specific constraints and program specific needs will be assessed. This analysis may result in solutions that deviate from the educational design standards described in this document. It is expected that as the District's vision changes over time, this document would be updated to reflect the changes, while maintaining the overall guiding principles of the Educational Vision and the Facilities Master Plan.



The purpose of design guidelines is to ensure the following:

A Common Baseline

To guide a consistent approach in developing each school site master plan and its proposed improvements.

Common Goals

PURPOS

DOCUMENT

To engage District stakeholders in a participatory process in developing the vision.

• Focused Outcome

To serve to document educator's intent for program delivery and goals.

Equitable Quality

To be used for assessing existing facilities and budgeting for a long term financial plan.

Continuous Improvement

As a tool for the reevaluation, adjustment and measurement of the plan over time.





## SAFETY & SECURITY

It is LUSD's goal to design and build safe school campuses while maintaining an inviting environment. Students and teachers should feel safe anywhere in the school buildings and on the campus grounds. A secure environment is one that creates opportunities for natural surveillance and provides clearly defined and controlled access. Security technology can be used to enhance passive security strategies.

The organization of a building should always take into consideration supervision and circulation. For example, restrooms accessed from the outside should be easily supervised from the hardcourts and/or playfields. Evaluate and design areas in which students can line up and/or congregate before they enter their classrooms; make supervision easy by limiting visual obstacles. Provide easy entry and access to classrooms.

Adequate lighting at parking and exterior circulation areas allow for safe, after-hours staff and maintenance access. Lighting shall be considered as part of the family of site furnishings and relate to the architectural style. Metal poles, if appropriate, or fixtures mounted to canopy structures can be considered.

SIGNAGE

Provide a system of covered walkways between buildings where interior circulation is not provided.

## **ARRIVAL SEQUENCE**

Pedestrian and vehicular points of entry to the campus provide visitors the first look at a school site. These spaces are the 'face' of the school to the surrounding community and provide the initial impression of the overall campus character.

FOOT

Entry points create a sense of arrival through open views to the campus at key locations. The vehicular arrival should be from a main roadway connecting the campus to the immediate community. The entry shall includes clear signage that leads students, staff and visitors to the appropriate parking or drop-off areas.

Pedestrian arrival shall be enhanced at key locations of entry to the site. These μ Π include student dropoff locations, entry to playground areas where students will gather prior to entering their classes, multipurpose facilities, and shared field space. Community use of these facilities after hours may require wayfinding signage. In addition to signage used for pedestrian and vehicular approach, appropriate signage should be provided to direct towards major program elements in the school. In particular, visitors and new students will require clear wayfinding to the Administration buildina.

Consider using key landscape and/or building features to aid in wayfinding and orientation of visitors as well as staff and students.

DESIGN

#### SITE ELEMENTS | ARRIVAL & PARKING 6 LEARNING SPACES DESIGN STANDARDS

## PARKING

Parking lots hold a support function to the campus. Parking lot locations provide staff and visitors a final destination for vehicles, before the users enter the campus on foot.

Visitor parking lots should be directly connected to buildings or areas that have short-term visitors, such as Administration and Kindergarten or Child Care.

Adequate shade for cooling of autos and pavement can be achieved by providing approximately one tree for every 4-10 stalls.

Limit pedestrian and vehicular crossing points.

Parking lot designs should follow local requirements for stall width, drive aisle width and shade. Provide a wheel stop for each parking stall where stalls are head-on to pedestrian areas, fencing, wall, building and planting areas or other obstructions. Consider speed bumps and/or speed tables in parking areas where driveways exist to protect pedestrians crossing aisles.

A secured bicycle and skateboard storage area should be accommodated. This area should be located near highly visible areas, to deter vandalism. Racks should be provided to allow locking of these transportation devices. Provide lockable racks for 10% of the student population.

## **DROP-OFF**

The site should have an on-site area to accommodate parent drop-off with a pass lane, at a minimum of 200 feet in drop-off length. Lanes and drop-off should be clearly labeled with appropriate pavement markings and/ or signage to avoid confusion. In addition, to alleviate onsite congestion, the site should be ideally surrounded on three sides by public streets in order to provide multiple safe drop-off areas or zones.

The drop-off areas will tend to have high traffic during morning drop-off and afternoon pick-up times, and therefore circulation and safety is of utmost importance. Limit pedestrian and vehicular crossing points, utilizing appropriate barriers and make sure pedestrian walk areas are identified with unobstructed visibility.

A separate drop-off with visitor parking for Kindergarten and Child Care is ideal. This dedicated drop-off shall have direct and visible access to the Kinder play area which is adjacent to their respective classrooms. The configuration should allow parents to either drop off and watch their child enter the campus or park and walk their child in.





## **BUILDING ORIENTATION & LUNCH SHELTERS**

Place buildings to optimize natural daylight and reduce solar heat gain on the building's mechanical heating and cooling systems. The design of the buildings should consider the impact of prevailing wind and solar patterns relative to the overall building energy performance.

The lunch area is used primarily for eating and socializing. The space may also be used for informal teaching or gathering throughout the school day.

A sheltered structure is required for optimum use of this exterior space during inclement weather. It should protect from rain as well as provide shade. The shelter or building component should fit within its architectural context.

Tables and seating shall be durable and appropriate for large groups and sustained use, vandal-resistant and comply with the Division of the State Architect's (DSA) accessibility requirements for seating.



## **CONTEXTUAL DESIGN**

The built environment should be integrated within its natural context in a way that promotes harmony between mechanical and natural systems as well as the users that will inhabit the space. Designing in this way will provide increased efficiencies and user wellbeing, ultimately leading to the longevity of the overall facility.

Playfields shall include space to support the physical education (PE) program. Provide direct access to hardcourts and playfields from the indoor/outdoor eating areas and any Fitness Rooms. The grass area shall accommodate a variety of sports activities including soccer. Utilize landscaping to provide areas of shade.

Paved hardcourt areas shall include striping for a variety of

- COURTS age-appropriate games including circles, four-square, basketball, handball, hopscotch, tether ball, etc.
  - Exterior drinking fountains shall be located throughout. Exterior access to restroom facilities, located in a visible and easily supervised area, shall be made available.

An age-appropriate play structure, adequate in size to accommodate its users, shall allow for climbing, sliding, walking, and hanging activities. Safe, recycled rubberized surfacing shall be placed underneath this play area. Shade should be provided either by landscaping or shade structure(s).

PLAY

## SITE ELEMENTS | SUPPORT SPACES LEARNING SPACES DESIGN STANDARDS

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## **SERVICE AREAS**

Service areas are high traffic areas for heavy machinery and equipment, including areas for the storage and removal of trash and recycling. Service areas may be spread throughout the campus, as they should be adjacent to the buildings they serve. Adequate lighting is required for early morning and evening deliveries.

The design of these service areas shall anticipate maintenance service points, limiting the quantity of access in order to promote student and staff safety. Service locations should be accessible to staff at the front of the school and limit circulation interruptions.

Provide an adequate quantity of durable and easily serviceable trash and recycling containers adjacent to heavy-use areas (e.g. at exit and entry points, fields and large assembly areas).

## **CONSIDERATIONS**

Provide service areas that accommodate the appropriate amount of storage spaces, parking for District vehicles and maintenance equipment, food service delivery, support delivery, and waste / recycling enclosures as needed for the campus.



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RECYCLE

Recycling collection stations should be incorporated at the ends of classroom/building wings to facilitate student recycling efforts and allow for easy pick up by maintenance staff at the end of the day. Bins should be well placed and should have covers so that odors will not permeate into other areas.

Service areas require covered space that can accommodate storage of maintenance equipment. These areas are to be sheltered and screened from the campus core as they often require large vehicle circulation for waste pick-up and delivery of food and supplies.

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Waste and recycling enclosures shall be covered and shall contain a can wash area. This can wash shall have a curb enclosed drain complete with a hose bib. Provide drainage for the entire enclosure. Use sturdy vehicular concrete pavement and/or asphalt concrete pavement for the entire length of access to the enclosure for stability. Wide access ramps shall lead from the parking area to the delivery door of the Food Service building.



## **CUSTODIAL SPACES**

Place custodial closets in various locations throughout the campus for convenience of access to equipment and supplies.

## Finishes:

DETAILS

- Floors: Sealed concrete
- Walls: FRP panels (minimum height to top of faucet), painted gypsum board
- Ceiling: Painted gypsum board

#### Equipment & Accessories:

- Shelving with 4 foot depth
- Mop and broom hangers

#### Electrical:

- Dedicated circuit to GFI receptacle
- All electrical fixtures, sprinklers, etc. protected by metal cage

#### Plumbing:

- Hot and cold water at sinks
- All electrical fixtures, sprinklers, etc. protected by metal cage

## RESTROOMS

Adequate restrooms for student and staff shall be placed in various locations throughout the campus. Furnish restrooms with durable finishes that are easy to clean and maintain.

Restroom locations and plumbing fixture counts should meet code requirements as well as the following requirements:



#### Finishes:

DETAIL

- Floors: Epoxy coating; slope to drain with trap primers
- Walls: Large format ceramic/porcelain tile
- Ceiling: Painted gypsum board

#### Equipment & Accessories:

- Solid phenolic partitions, floor & wall mount
- Single mirrors per each lavatory sink
- No recessed trash receptacles
- Jumbo roll toilet paper dispensers, except at ADA and staff
- Soap dispensers at each lavatory sink
- Women's restrooms to have napkin dispensers and napkin disposal (staff); HS (staff & student)
- Men's & Women's staff stalls to have toilet seat cover dispensers
- Electric hand dryers (student)
- Paper towel dispensers (staff)
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## SITE ELEMENTS | SUPPORT SPACES LEARNING SPACES DESIGN STANDARDS

#### Electrical:

- Dedicated circuit to GFI receptacles
- Electric hand dryers to be push button only, no IR sensors

#### Plumbing:

- Recessed hose bib with locking cover
- Clean out above all urinals
- Hot and cold water at all lavatories/ sinks, per code
- All restrooms to have ball valve shutoff (in recessed areas provide access panel)
- Low-flow plumbing fixtures
- 1 pint urinals

## **OUTDOOR LEARNING ENVIRONMENTS**

Outdoor spaces adjacent to classrooms can function for small group sessions. They can be utilized by teachers and students as an extension of the indoor learning environment, for activities including 'hands-on' art and science activities, reading, discussion, other collaborative activities and even outdoor play.

Include spaces for both active group and passive, individual learning to support various learning styles. Spaces should allow "messy" multipurpose areas for student experimentation, dependent upon age group.

Shade shall be provided by utilizing adjacent buildings, trees, shade structure(s) and/or other design features in order to maximize the use of the space.

Environmental considerations should include drought resistant plants/vegetation.

The spaces should be inviting and engaging – utilize different floor materials and vegetation opportunities to design the passive and active spaces.

Classrooms within the vicinity may be affected by noise levels while the learning court is in use, therefore screen buffer planting may be useful in alleviating noise transfer to other spaces.



## ACTIVITIES

- · Instructional lessons, group and individual work
- Independent exploration and hands-on projects including: arts and crafts, science labs, etc.
- Social gathering

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Furniture should vary. Include a variety of types to allow for flexible use of the space. Include group tables and individual type furniture to accommodate different densities of students and purposes. 2 Outdoor areas need to be monitored

- and have visual boundaries, but
- should allow children to experience the space freely. Some spaces will
- The space freely. Some spaces will rely on vegetation for designation of space. Include open green space, as well as hard space, for children to experience individual activity/ playtime.

# EQUIPMENT

enhanced with shade trees, and buffered by planting. Include projection and writable surfaces to enable group work and presentation.

These areas are typically low-

tech spaces with limited seating,

The outdoor teaching areas can be themed to relate to areas of study. For example, a space with sundials and angular, concrete seat walls could be used by a math class to study geometry.



## **ELEMENTARY SCHOOLS**





## ELEMENTARY SCHOOLLEARNING SPACES DESIGN STANDARDS

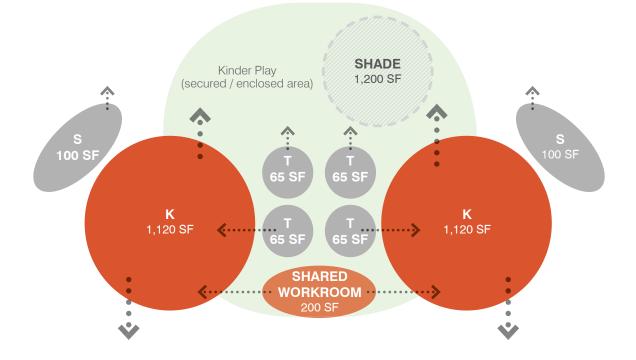
## **KINDERGARTEN**

## ACTIVITIES

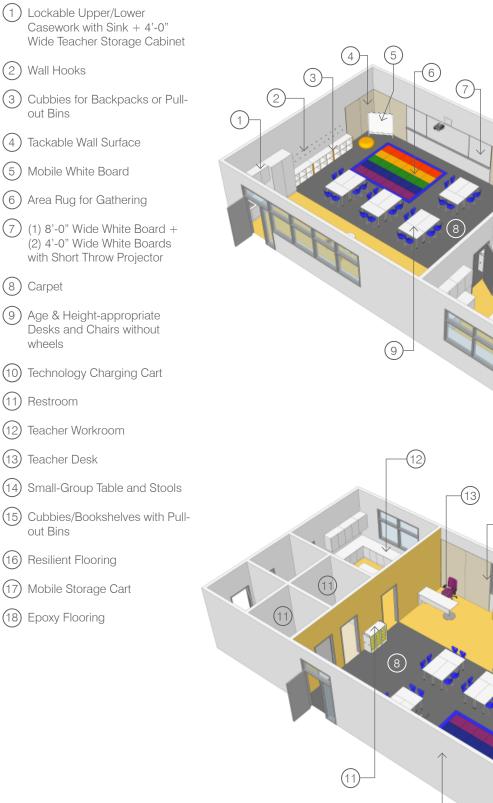
- Instructional lessons, group and individual work with active and passive spaces supporting a variety of student learning styles
- Project art/craft space and stations for students to explore independent learning, including outdoor exploration

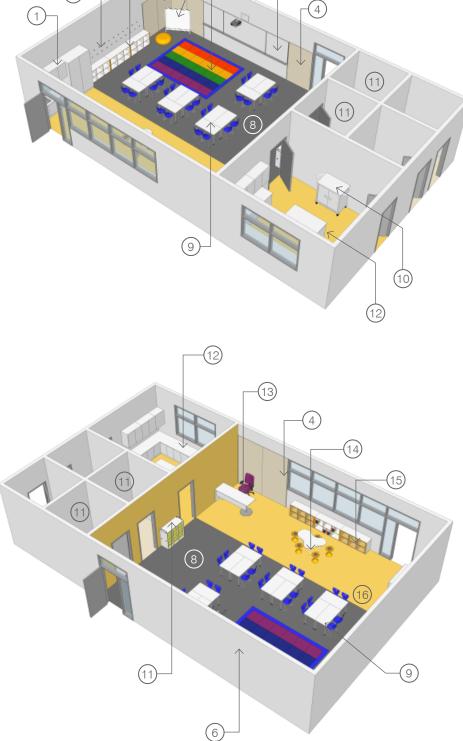
## **DESIGN OBJECTIVES & CHARACTERISTICS**

- The campus organization should group Kindergarten classrooms together with Transitional Kindergarten and Preschool, located near administration and the front of school.
- Provide easy access to outdoor play, including shade when possible.
- Collaboration spaces intended for student use should have good visibility for ease of monitoring by the teacher.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Mobile technology use should be supported through a multitude of electrical outlets and a combination of data port locations, with wireless internet access available and able to expand capacity in the future.
- Integrated technology (audio systems and wireless access) should be uniformly provided.



## LEGEND





## **SPATIAL FEATURES**

### CEILINGS

• Ceilings should be primarily acoustically absorptive material. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

### FURNITURE

- Furniture scaled for young children should be the focus, with consideration for the weight and ease of mobility based on age. Desks and chairs should not have wheels.
- A minimum of one kidney-type table should be provided for small group work. Include stools or different type of chair to encourage mobility and choice.
- Mobile whiteboards as a furniture solution may be provided to support small group instruction.
- Organized mobile shelving or cubbies with small pull-out bins should be provided for student supplies and book storage. Student age and height should be considered when determining locations and shelf height.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.

#### CASEWORK

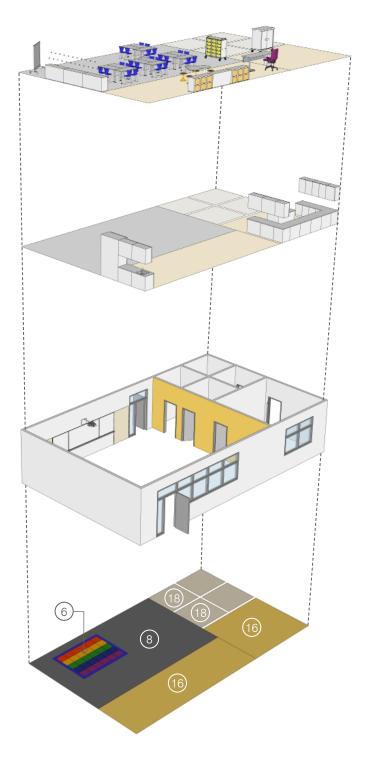
- Lockable storage for teacher supplies and materials should be provided, primarily in the Teacher Workroom. Cubbies should be provided for backpacks below the wall hooks.
- A sink should be provided at the main entrance to the room.

#### WALLS, DOORS & WINDOWS

- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should be considered.
- Wall hooks should be provided for student use, one for each student at a minimum. Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

#### **FLOORING**

- Resilient flooring should be provided at 'wet' areas and project-based activity areas, approximately one-third of the room.
- Carpet should be provided for the remaining twothirds of the room.
- A rug should be provided at the main class gathering area.
- Resilient flooring should be provided in the Teacher Workroom.





## ELEMENTARY SCHOOLLEARNING SPACES DESIGN STANDARDS

## **TYPICAL 1ST - 3RD GRADE CLASSROOM**

## ACTIVITIES

- Exploration and active learning
- Project-based learning for students to explore independent learning, group and team learning, including outdoor exploration

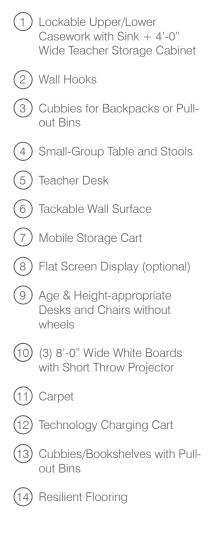
## **DESIGN OBJECTIVES & CHARACTERISTICS**

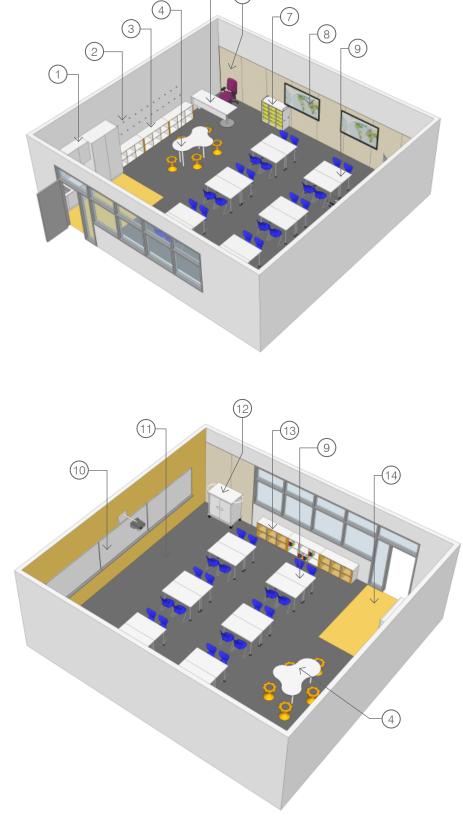
- The campus organization should group classrooms together with adjacencies to the dedicated Creativity Lab(s), Science Labs and Electives, where applicable, with acoustical separation as necessary. Clusters of learning pods will encourage instructor collaboration.
- Provide easy access to outdoor commons, including shade.
- Collaboration spaces intended for student use should have good visibility for ease of monitoring by the teacher.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Mobile technology use should be supported through a multitude of electrical outlets and a combination of data port locations, with wireless internet access available and able to expand capacity in the future.





## LEGEND





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## **SPATIAL FEATURES**

### CEILINGS

• Ceilings should be primarily acoustically absorptive material. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

### FURNITURE

- Furniture scaled for young children should be the focus, with consideration for the weight and ease of mobility based on age. Desks and chairs should not have wheels.
- A minimum of one kidney-type table should be provided for small group work. Include stools or different type of chair to encourage mobility and choice.
- Mobile whiteboards as a furniture solution may be provided to support small group instruction.
- Organized mobile shelving or cubbies with small pull-out bins should be provided for student supplies and book storage. Student age and height should be considered when determining locations and shelf height.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.

#### CASEWORK

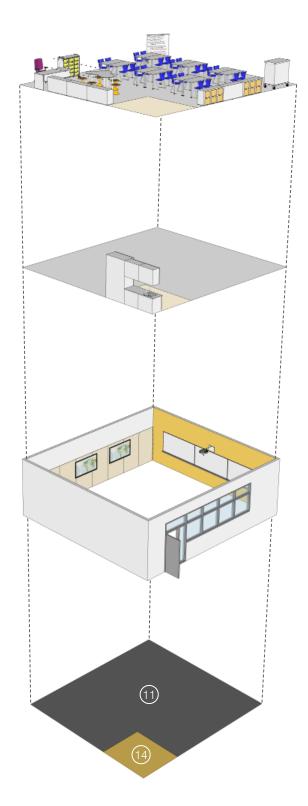
- A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.
- A sink should be provided at the main entrance to the room.
- Cubbies should be provided for backpacks below the wall hooks.

#### WALLS, DOORS & WINDOWS

- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should also be considered.
- Wall hooks should be provided for student use, one for each student at a minimum.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

#### **FLOORING**

- Resilient flooring should be provided at the 'wet' entry area.
- Carpet should be provided for the remainder of the room.



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## 22 ELEMENTARY SCHOOL LEARNING SPACES DESIGN STANDARDS

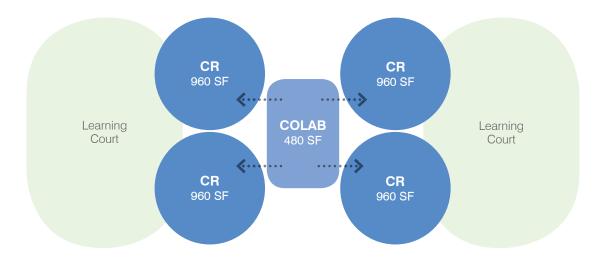
## **TYPICAL 4TH - 6TH GRADE CLASSROOM**

## ACTIVITIES

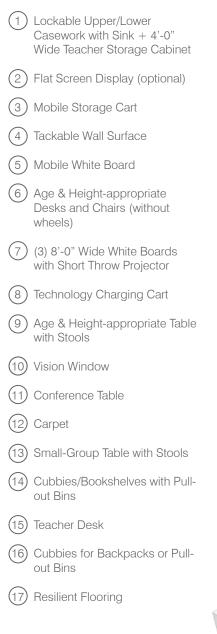
- Exploration and active learning
- Project-based learning for students to explore independent learning, group and team learning, including outdoor exploration

## **DESIGN OBJECTIVES & CHARACTERISTICS**

- The campus organization should group classrooms together with adjacencies to the dedicated Creativity Lab(s), Science Labs and Electives, where applicable, with acoustical separation as necessary. Clusters of learning pods will encourage instructor collaboration.
- Provide easy access to outdoor commons, including shade.
- Collaboration spaces intended for student use should have good visibility for ease of monitoring by the teacher.
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- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Mobile technology use should be supported through a multitude of electrical outlets and a combination of data port locations, with wireless internet access available and able to expand capacity in the future.



## LEGEND





## ELEMENTARY SCHOOL LEARNING SPACES DESIGN STANDARDS

## **SPATIAL FEATURES**

### CEILINGS

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### FURNITURE

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- Mobile whiteboards as a furniture solution may be provided to support small group instruction.
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## CASEWORK

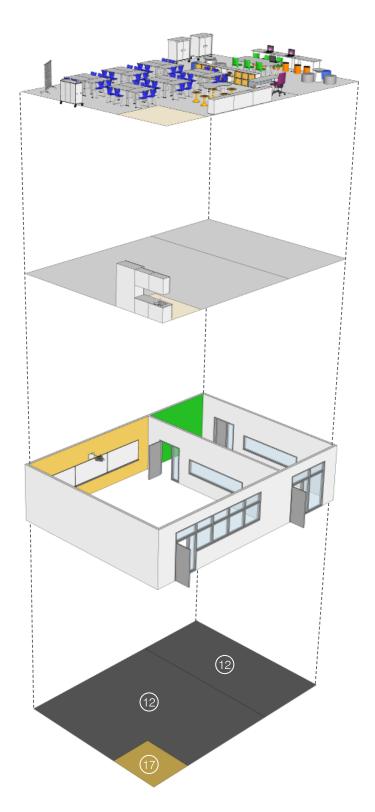
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- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should also be considered.
- Wall hooks should be provided for student use, one for each student at a minimum.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

#### FLOORING

- Resilient flooring should be provided at the 'wet' entry area.
- Carpet should be provided for the remainder of the room.





## <sup>26</sup> ELEMENTARY SCHOOL LEARNING SPACES DESIGN STANDARDS

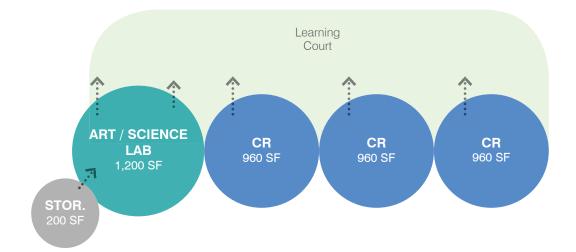
## **ART/SCIENCE LAB**

## ACTIVITIES

- Learner-centered instruction
- Hands-on, introductory science lab experimentation, investigation and demonstration
- Small group projects and work sessions
- Creative exploration
- Showcase and presentation of student work
- Technology-based lessons and work, ability to film project process and create a digital presentation of projects and ideas

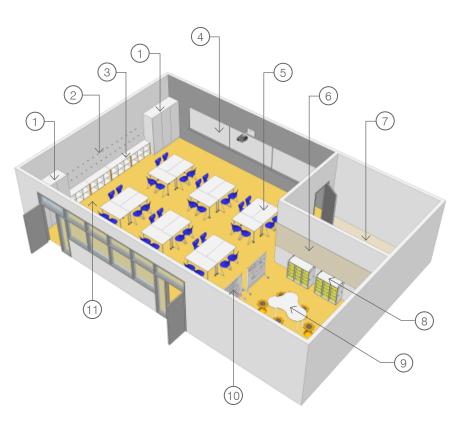
## **DESIGN OBJECTIVES & CHARACTERISTICS**

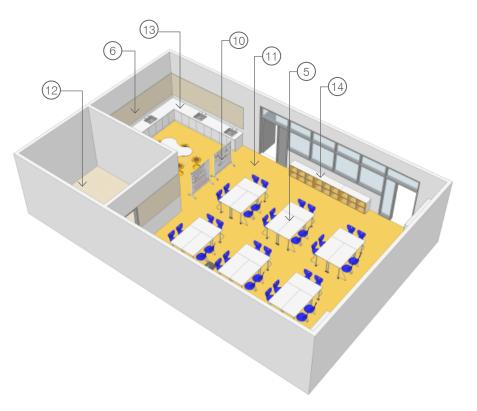
- Support collaboration opportunities through collocation, and diverse shared support spaces.
- Spaces should be representative of the exploration and experimentation processes.
- Create opportunities to use the building as a teaching tool.
- Art/ Science Lab adjacent to a Learning Garden/ Courtyard.
- Visibility across classroom space to outdoor spaces for supervision.
- Dedicated space for display of student work.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Adapt to changing technologies with flexible solutions such as pull-down power cord reels from the ceilings, and infrastructure to allow expandable utility access to power, data, wireless data, and water.
- Consider acoustic treatment to support multiple concurrent activities in the space.



## LEGEND

- 1 Lockable 6'-0" Wide Storage Cabinets
- (2) Wall Hooks
- 3 Cubbies for Backpacks or Pullout Bins
- (4) (3) 8'-0" Wide White Boards with Short Throw Projector
- 5 Age & Height-appropriate Desks and Chairs without wheels
- (6) Tackable Wall Surface
- (7) Storage Room
- (8) Mobile Storage Cart
- (9) Small-Group Table and Stools
- (10) Mobile White Board
- (11) Resilient Flooring
- (12) Epoxy Flooring
- (13) Lockable Lower Casework with(4) Sinks
- (14) Cubbies/Bookshelves with Pullout Bins





#### **SPATIAL FEATURES**

#### CEILINGS

- Ceilings should include acoustically absorptive material, with indirect/direct lighting. Areas of the ceiling can be open to the structure above to provide learning opportunities.
- Retractable power cord reels.

#### **FURNITURE**

- Furniture that has flexibility in scale but appropriate for elementary age children should be the focus, with consideration for the weight and ease of mobility.
- Furniture surfaces should be durable and easily cleanable to support 'messy' activities.
- Move-able, adjustable work tables (with wheels) and chairs (without wheels) that will support arts, crafts and science project experimentation at seated and standing heights.
- Apron and project storage should be provided.
- Movable whiteboards as a furniture solution may be provided to support small group instruction.
- Organized mobile shelving or cubbies with small pull-out bins should be provided for student supplies.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.

#### CASEWORK

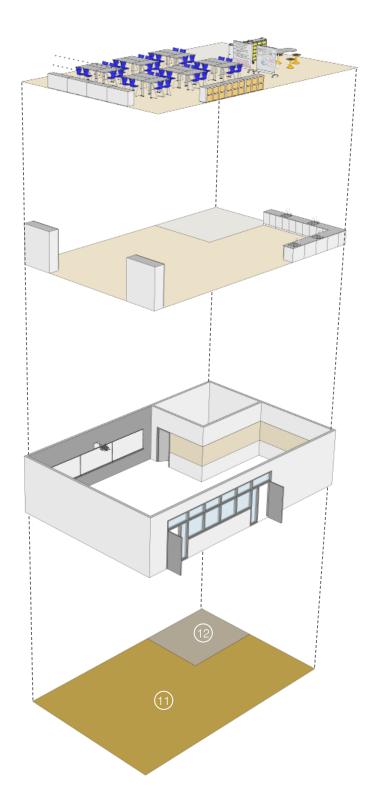
- Counter surfaces shall be easily cleanable.
- Lockable storage cabinets for supplies and materials.
- Multiple sinks with hot and cold water.
- Cubbies should be provided for backpacks below the wall hooks.

#### WALLS, DOORS & WINDOWS

- Tackable and magnetic wall surfaces for display of student work.
- Integrated technology (audio systems and wireless access) should be uniformly provided.
   Include a short throw projector and whiteboard projection surface. Consider additional displays at small group areas.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Wall hooks should be provided for student use, one for each student at a minimum.
- Direct access to outdoor learning courtyard.

#### FLOORING

• Resilient flooring for easy cleanup and maintenance; that encourages 'messy' work.





## <sup>30</sup> ELEMENTARY SCHOOL LEARNING SPACES DESIGN STANDARDS

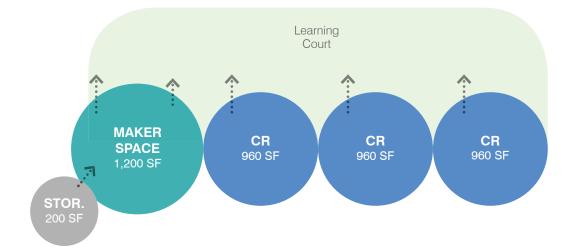
## MAKER SPACE

## **ACTIVITIES**

- · Interdisciplinary, project-based learning in areas of Science, Technology, Engineering, Arts, and Mathematics
- Self-directed study, team-based project collaboration
- Hands-on lab experimentation and demonstration
- Arts-based projects and space for building/crafting + investigating
- · Computer-based digital arts and technology-based lessons and work, ability to film project process and create a digital presentation of projects and ideas
- Engineering / Robotics-based teamwork and project-based learning

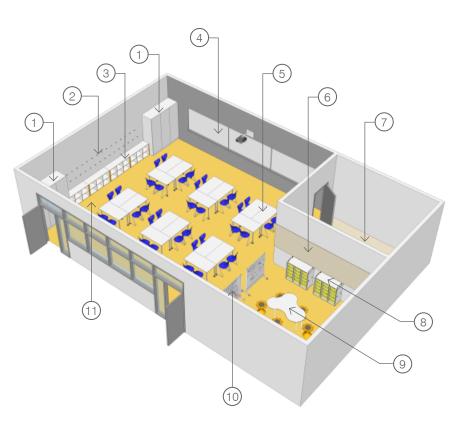
## **DESIGN OBJECTIVES & CHARACTERISTICS**

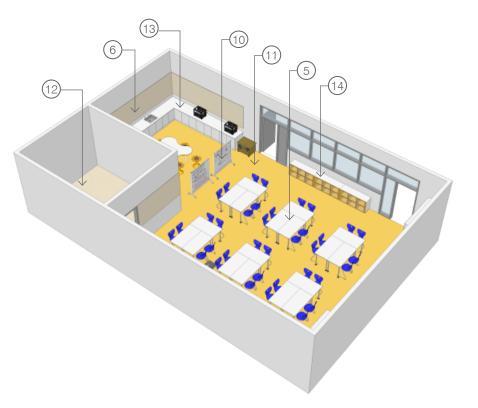
- · Support collaboration opportunities through collocation, diverse shared support spaces, and gallery area for project display and presentations.
- Collaboration spaces intended for student use should have good visibility for ease of monitoring by the teacher.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom with the ability to support • multiple concurrent activities in the space.
- Spaces should be representative of the exploration of curriculum activities, inspiring and engaging students to pursue interests in STEAM fields of study. Space should be flexible to support a variety of programs including computer education, drama, engineering, etc.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- · Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- · Adapt to changing technologies with flexible solutions such as pull-down power cord reels from the ceilings, and infrastructure to allow expandable utility access to power, data, wireless data, and water.
- Direct access to a lockable prep/ storage room to store materials and on-going projects. •
- Visual and physical connection to an exterior learning courtyard that shall be treated as an extension to the Classroom. Create learning opportunities using building systems and landscape features.



## LEGEND

- 1 Lockable 6'-0" Wide Storage Cabinets
- (2) Wall Hooks
- 3 Cubbies for Backpacks or Pullout Bins
- (4) (3) 8'-0" Wide White Boards with Short Throw Projector
- 5 Age & Height-appropriate Desks and Chairs without wheels
- (6) Tackable Wall Surface
- (7) Storage Room
- (8) Mobile Storage Cart
- (9) Small-Group Table and Stools
- (10) Mobile White Board
- (11) Resilient Flooring
- (12) Epoxy Flooring
- (13) Lockable Lower Casework with(4) Sinks
- (14) Cubbies/Bookshelves with Pullout Bins





## <sup>32</sup> ELEMENTARY SCHOOL LEARNING SPACES DESIGN STANDARDS

## **SPATIAL FEATURES**

#### CEILINGS

- Ceilings should include acoustically absorptive material, with indirect/direct lighting. Areas of the ceiling can be open to the structure above to provide learning opportunities.
- Retractable power cord reels.

## FURNITURE

- Furniture that has flexibility in scale but appropriate for elementary age children should be the focus, with consideration for the weight and ease of mobility.
- Furniture surfaces should be durable and easily cleanable to support 'messy' activities.
- Move-able, adjustable work tables (with wheels) and chairs (without wheels) that will support active learning at seated and standing heights.
- Allow for technology connectivity, with stand-up workstations/ tables.
- Apron and project storage should be provided.
- Movable whiteboards as a furniture solution may be provided to support small group instruction. Provide huddle boards at student desks for group work.
- Organized mobile shelving or cubbies with small pull-out bins should be provided for student supplies.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.

## CASEWORK

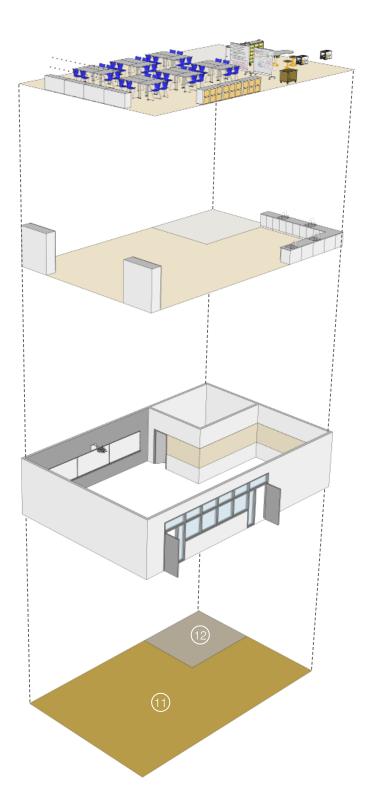
- Counter surfaces shall be easily cleanable.
- Lockable storage cabinets for supplies and materials.
- Multiple sinks with hot and cold water. Consider an outdoor use sink.
- Cubbies should be provided for backpacks below the wall hooks.

#### WALLS, DOORS & WINDOWS

- Tackable and magnetic wall surfaces and display area for student work.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a short throw projector and whiteboard projection surface. Additional displays at multiple locations.
- Allow for multiple presentation areas.
- Adequate connections/ access to power outlets.
   Support multiple room configurations.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Wall hooks should be provided for student use, one for each student at a minimum.
- Direct access to outdoor learning courtyard.

## FLOORING

• Resilient flooring for easy cleanup and





## <sup>34</sup> ELEMENTARY SCHOOL LEARNING SPACES DESIGN STANDARDS

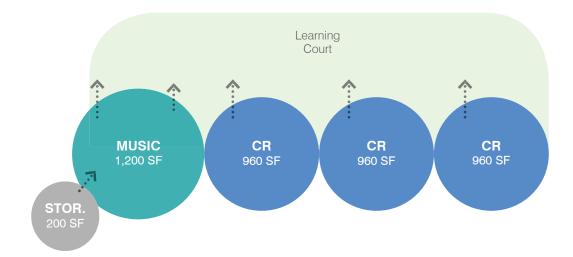


## **ACTIVITIES**

- Large group instruction, ensemble and performance
- Hands-on experience through rehearsals and practice
- Music instruction and appreciation at all beginning and intermediate levels
- Display of awards and event announcements

## **DESIGN OBJECTIVES & CHARACTERISTICS**

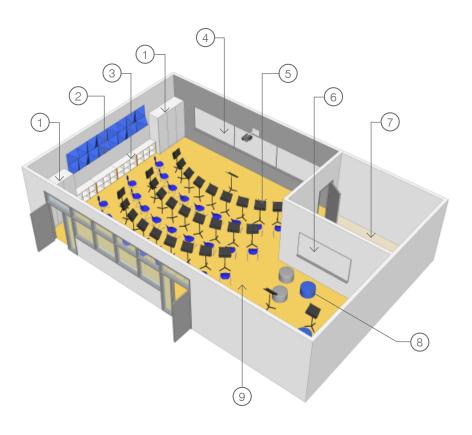
- Centrally locate with other Classrooms to encourage program connections.
- Support active and interactive learning with the use of furniture that allows for flexible arrangements.
- · Acoustically separate space from other Classrooms. Provide high-performing acoustics within the space to be able to support musical activities.
- · Direct access to a Learning Courtyard for small group collaborative work and practice. Visibility across classroom space to outdoor space for supervision.
- Dedicated, lockable storage for instruments, music and equipment.
- Provide a sink for cleaning instruments.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- · Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.

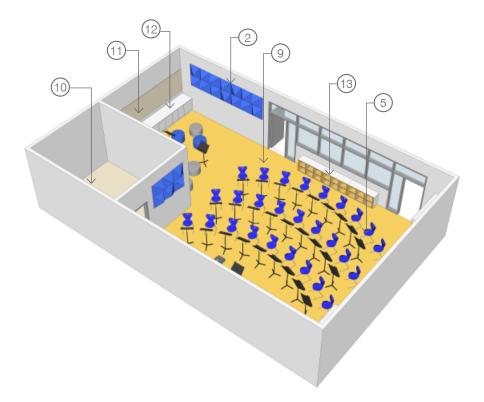




## LEGEND

- 1 Lockable 6'-0" Wide Storage Cabinets
- (2) Acoustic Wall Panels
- 3 Cubbies for Backpacks or Pullout Bins
- (4) (3) 8'-0" Wide White Boards with Short Throw Projector
- (5) Age & Height-appropriate Chairs without wheels + Adjustable Height Music Stands
- (6) 8'-0" Wide White Board
- (7) Storage Room
- (8) Padded Pouf Stool with Polyurethane Upholstery
- (9) Resilient Flooring
- (10) Epoxy Flooring
- (11) Tackable Wall Surface
- (12) Lockable Lower Casework with (1) Sink
- (13) Cubbies/Bookshelves with Pullout Bins





## <sup>36</sup> ELEMENTARY SCHOOL LEARNING SPACES DESIGN STANDARDS

## **SPATIAL FEATURES**

#### CEILINGS

- Ceilings should be primarily acoustically absorptive material, with indirect/direct lighting.
- Strobe light alert for PA system announcements.

### FURNITURE

- Furniture that has flexibility in scale but appropriate for elementary age children should be the focus, with consideration for the weight and ease of mobility. Include height adjustable chairs (without wheels) and music stands.
- Allow for technology connectivity at several locations to allow for multiple presentation areas.
- Organized shelving or cubbies with small pull-out bins should be provided for student supplies.

### CASEWORK

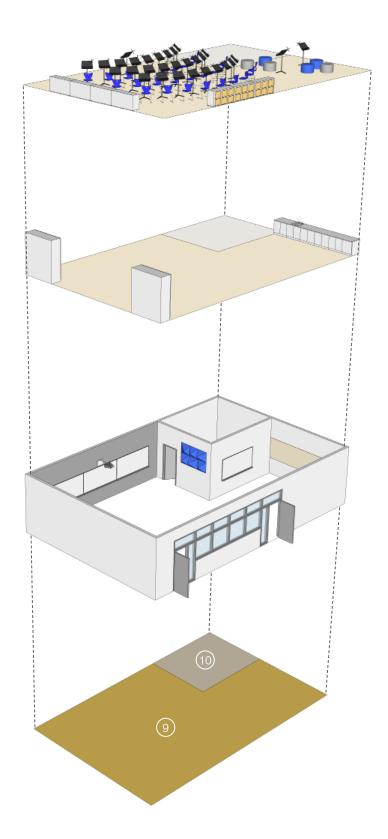
- Lockable storage cabinets for supplies and materials.
- One sink with hot and cold water and lockable lower casework.
- Cubbies with small pull-out bins for storage of backpacks.

## WALLS, DOORS & WINDOWS

- Tackable and magnetic wall surface and display area for student achievements and event announcements.
- Markerboards with staff lines; locate at large group and small group areas.
- Keep in mind finishes contribute to acoustical qualities; include materials and acoustic panel treatments that absorb sound.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a short throw projector and whiteboard projection surface.
- Allow for multiple performance areas and small group/ensemble practice area.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Direct access to outdoor learning courtyard.

## FLOORING

Resilient flooring for easy cleanup and maintenance.





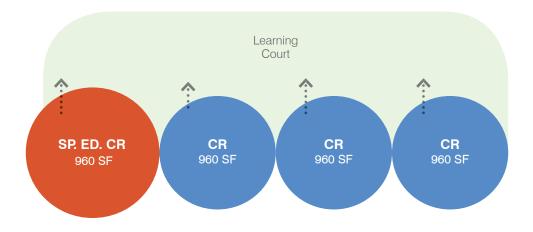
# <sup>38</sup> ELEMENTARY SCHOOL LEARNING SPACES DESIGN STANDARDS

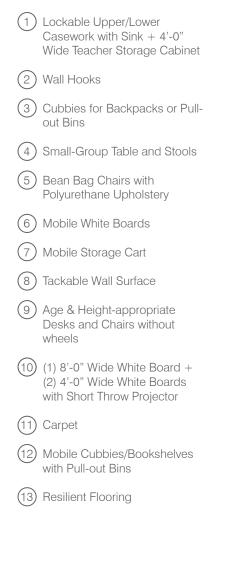
# **SPECIAL EDUCATION - OPTION 1**

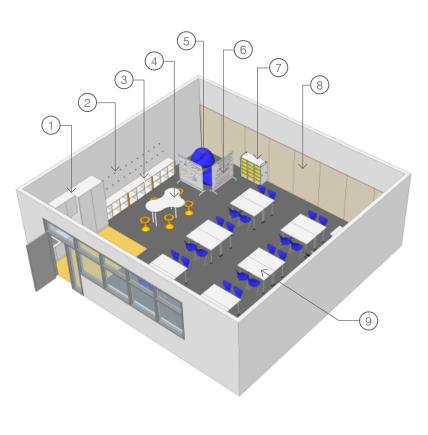
## ACTIVITIES

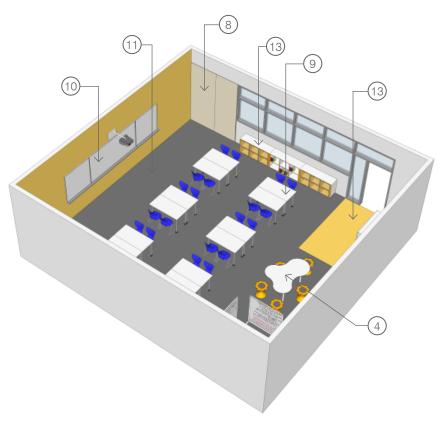
- Individual Educational Program (IEP)
- Student-centered planning
- · Assessment and instruction in the least restrictive environment
- Development of and improvement of communication and language skills
- Assistive technology and communication devices for those in need
- Instructional program includes transition planning

- Integrate special education into campus 'Least Restrictive Environment' to have full inclusion of special education students on campus.
- All support spaces should have good visibility for ease of monitoring by the teacher.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches and dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Integrated learning assistance technology should be provided as needed.









## CEILINGS

• Ceilings should be primarily acoustically absorptive material. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

## FURNITURE

- Furniture scaled for young children should be the focus, with consideration for the weight and ease of mobility based on age. Desks and chairs should not have wheels.
- A minimum of one kidney-type table should be provided for small group work. Include stools or different type of chair to encourage mobility and choice.
- Mobile whiteboards as a furniture solution may be provided to support small group instruction.
- Organized mobile shelving or cubbies with small pull-out bins should be provided for student supplies and book storage. Student age and height should be considered when determining locations and shelf height.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.
- Designate a teacher workstation/desk area but allow for more than one location for flexibility.

## CASEWORK

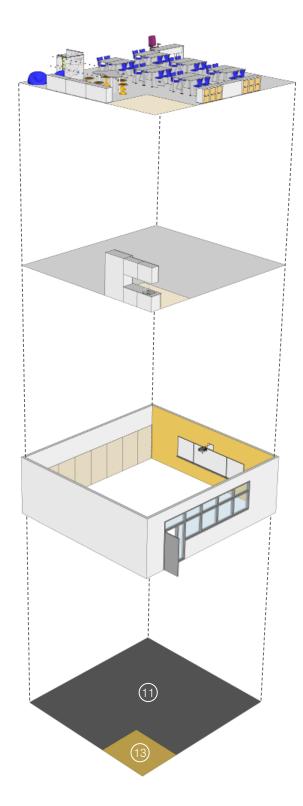
- A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.
- A sink should be provided at the main entrance to the room.
- Cubbies should be provided for backpacks below the wall hooks.

## WALLS, DOORS & WINDOWS

- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should also be considered.
- Wall hooks should be provided for student use, one for each student at a minimum.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

## FLOORING

• Carpet should be provided for the majority of the room. Resilient flooring should be provided at the 'wet' entry area.



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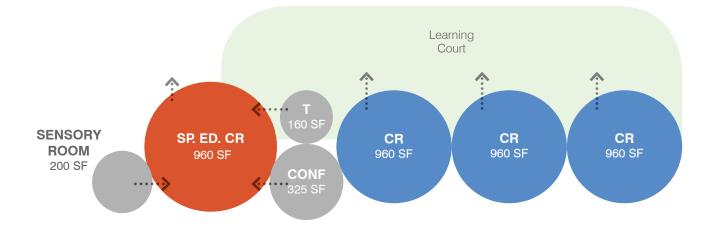
## <sup>42</sup> ELEMENTARY SCHOOL LEARNING SPACES DESIGN STANDARDS

## **SPECIAL EDUCATION - OPTION 2**

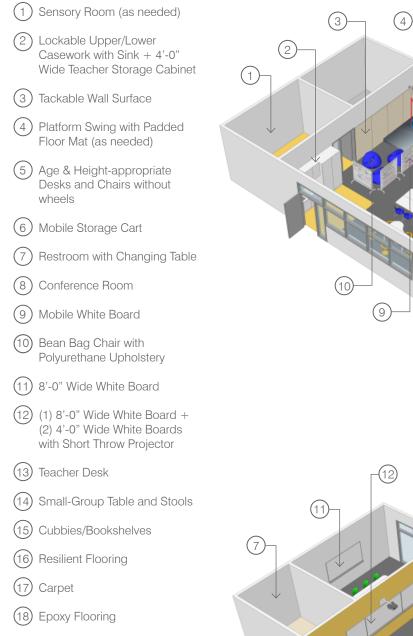
## **ACTIVITIES**

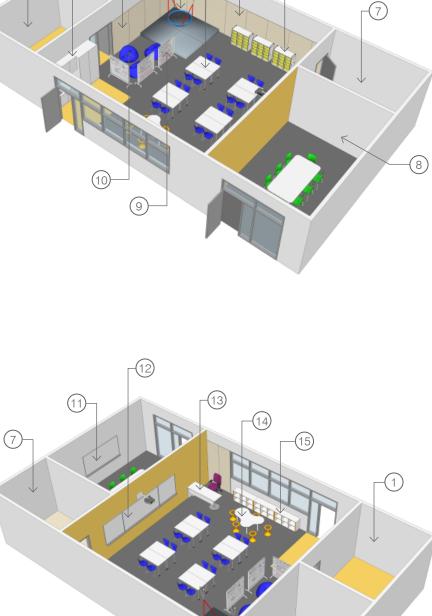
- Individual Educational Program (IEP)
- Student-centered planning •
- · Assessment and instruction in the least restrictive environment
- Development of and improvement of communication and language skills
- Assistive technology and communication devices for those in need •
- Instructional program includes transition planning •

- · Integrate special education into campus 'Least Restrictive Environment' to have full inclusion of special education students on campus.
- The spaces should be calming utilize warm colors and minimal patterns. •
- Dimmable lighting with high color rendering index (CRI 85 or higher) to reduce student sensitivities.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows • and improve air circulation and comfort through ceiling fans.
- Integrated learning assistance technology should be provided as needed. •
- Classrooms should be acoustically separated with high-performing acoustics within the classroom. •
- For new construction, structural consideration should be given for hanging equipment. •
- All support spaces should have good visibility for ease of monitoring by the teacher.
- Sensory room to have high-acoustical separation and visual connection to the classroom but not to the exterior; the ability to • darken the space is ideal.
- A unisex restroom should include a changing table (as required) with a lift.









(5)

-3

-(6)

## CEILINGS

• Ceilings should be highly acoustic to reduce reverberation time and include acoustical wall treatments. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

## FURNITURE

- Furniture scaled for young children should be the focus, with consideration for the weight and ease of mobility based on age. Desks and chairs should not have wheels.
- A minimum of one kidney-type table should be provided for small group work. Include stools or different type of chair to encourage mobility and choice.
- Mobile acoustical/whiteboards as a furniture solution to create an area to support small group instruction.
- Organized mobile shelving or cubbies with small pull-out bins should be provided for student supplies and book storage. Student age and height should be considered when determining locations and shelf height.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.
- Designate a teacher workstation/desk area but allow for more than one location for flexibility.

## CASEWORK

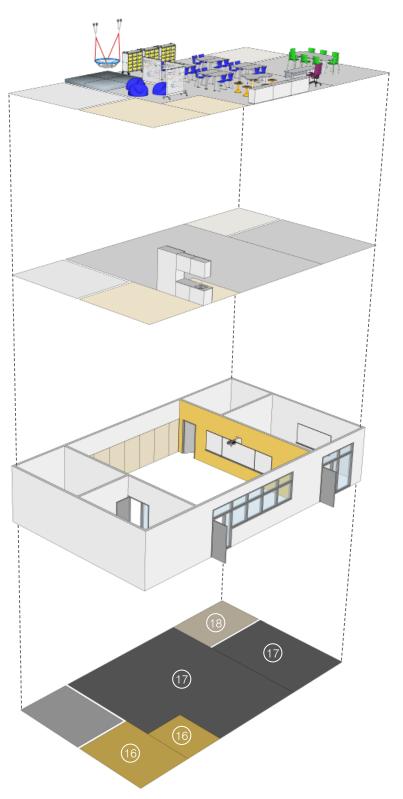
- A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.
- A sink should be provided at the main entrance to the room.
- Cubbies should be provided for backpacks below the wall hooks.

## WALLS, DOORS & WINDOWS

- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should also be considered.
- Wall hooks should be provided for student use, one for each student at a minimum. Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

## FLOORING

- Flooring should be carpet throughout most of the space. Resilient flooring at wet areas; epoxy flooring at restrooms, and carpet in sensory rooms, and conference spaces.
- Safety padding at platform swing.





## **LEARNING CENTER**

## ACTIVITIES

- One-on-one instruction
- Small group instruction
- Tutoring, Counseling
- Conferences and meetings
- IEP meetings
- Testing and observation

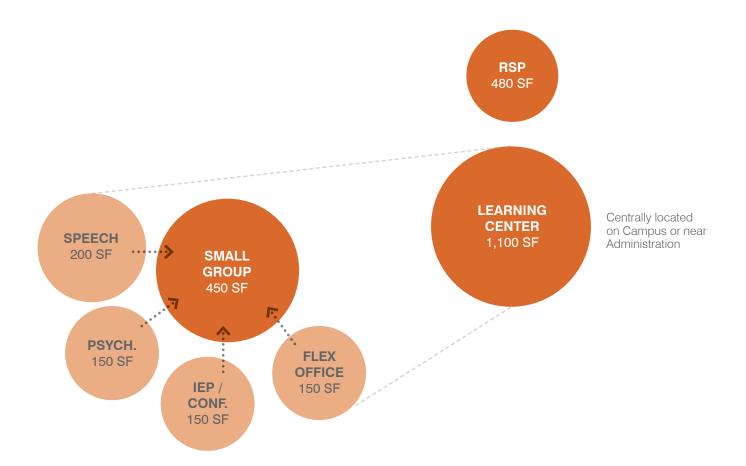
## **DESIGN OBJECTIVES & CHARACTERISTICS**

- Acoustical separation and privacy between rooms.
- Visual connection of all rooms to exterior and to small group room.
- Dimmable lighting with high color rendering index (CRI 85 or higher) should be provided to reduce student sensitivities.
- Lighting should be occupant-controlled through shading devices.
- The spaces should be calming utilize warm colors and minimal patterns.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems and the ability to operate windows.
- Technology integration should be supported in each space.

## **SPATIAL FEATURES**

## (FURNITURE, FINISHES & EQUIPMENT)

- Finishes should accommodate the activities listed above. Flooring should be carpeted.
- Ceiling should be highly acoustic to reduce reverberation time and include acoustical wall treatments.
- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Digital monitors for sharing or working at computer stations should be provided.
- Ergonomic workstations with comfortable, soft seating areas and student-friendly furniture should be provided.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.





## **ADMINISTRATION**

## ACTIVITIES

- Check-in, Front Entry
- Administrative duties
- Discipline meetings
- Counseling
- Health support
- Staff collaboration and professional development
- Attendance, enrollment, supply/records storage

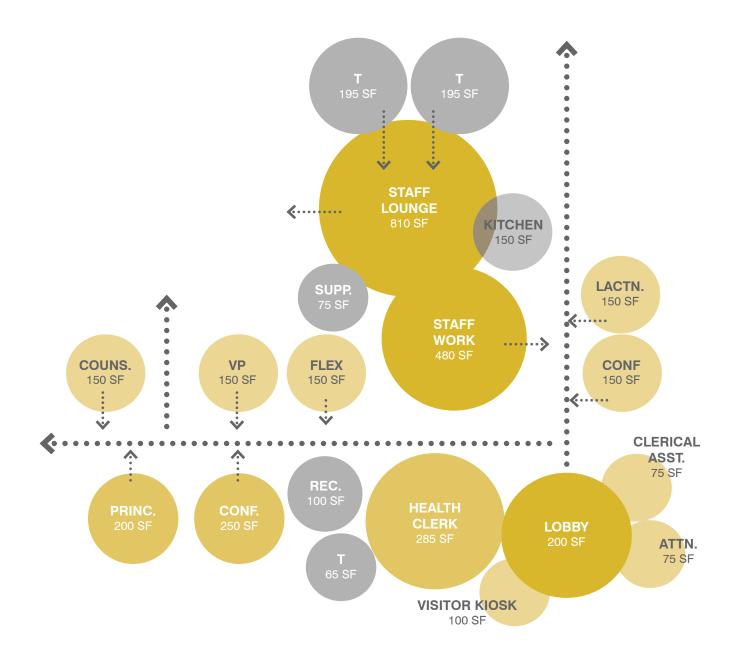
## **DESIGN OBJECTIVES & CHARACTERISTICS**

- Define a clear, single-point of entry to campus.
- Create an inviting lobby where students, parents and community members are exposed to a welcoming entry with student work on display and comfortable seating.
- Administration spaces should be accessible to visitors, yet allow for private and confidential conversations. Clearly delineate public versus private space.
- Spaces should be acoustically separated.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems and the ability to operate windows.
- The Staff Work/Lounge should be a fluid space that allows for social interaction and professional collaborative space.
- Large conference room should accommodate 12-15 people. Small conference room should accommodate 6-8 people.
- Provide a private lactation room; include comfortable soft furnishings and dimmable lights.

## **SPATIAL FEATURES**

## (FURNITURE, FINISHES & EQUIPMENT)

- Finishes should accommodate the activities listed above. Flooring should be carpet in office/conference areas and resilient in workrooms and the health office.
- Ceilings should be primarily acoustic with limited areas of dropped hard lid.
- Digital display area for announcements and student work should be located in the lobby.
- Casework at standing and seated working heights should be provided at the reception area and workrooms.
- The Health Office should include casework with a work area, lockable storage cabinets for student medicine and a refrigerator with ice maker. Ceiling-hung cubicle curtains should be provided to separate the cot area.

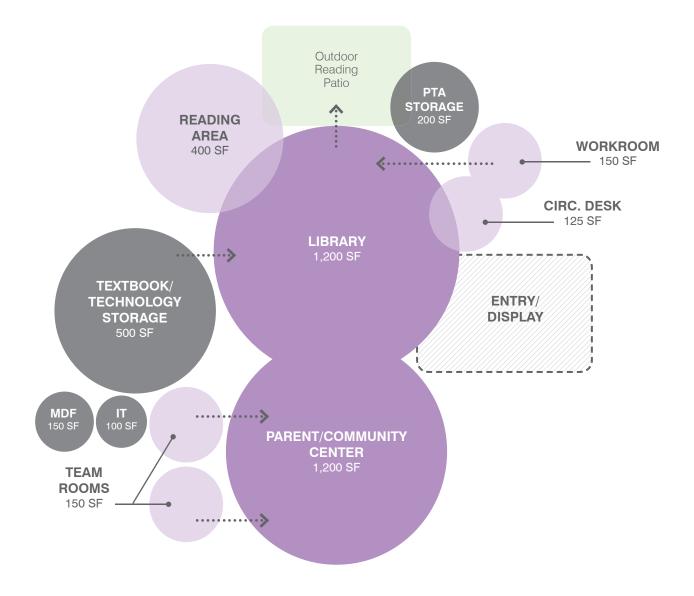


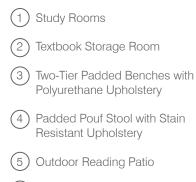
## LIBRARY / MEDIA CENTER

## ACTIVITIES

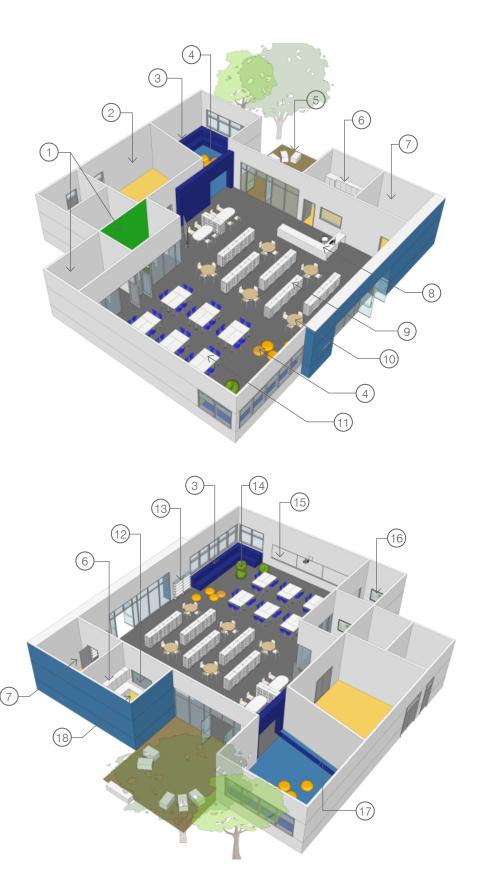
- · Collaborative research, group instruction, technology exploration, self-directed study, and quiet reading
- Circulation of materials and resources
- Student work display and presentation
- Research, self-directed information investigation
- Content creation
- Small and large group instruction
- Community access (if applicable)

- Support technology-rich individual research and investigation, along with acoustically separated, visually connected group and team working spaces.
- Space should serve as a resource and parent/ community center. Include a dedicated PTA storage room. Consider before / after school hours for parent and/or student access.
- Create zones for a variety of activities, group sizes and noise levels.
- Direct access to an outdoor, shaded reading patio that has WiFi access.
- Equip and provide infrastructure to support meeting/ presentation area.
- Two Team/Study Rooms provide quieter areas for study and small group work. Include a green screen space and support for video recording capabilities.
- Promote student and staff interaction in a comfortable, stimulus-rich environment that will support multiple concurrent activities.
- Locate close to parking for community events.
- Controlled natural daylighting and views to the exterior, with soft, ambient indirect lighting and task lighting available in select areas with the ability to adjust.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems and the ability to operate windows.
- The Parent/Community Center should provide a technology-rich setting with flexible furnishings.
- Technology-rich workstations and meeting spaces, with connectivity to internet and easy sharing of mobile devices should be the focus throughout the space.





- 6 Lockable Upper/Lower Casework with Sink
- (7) PTA Storage Room
- (8) Circulation Desk
- (9) 42" High Book Shelves
- (10) 42"-48" Round Tables with Chairs
- (11) Age & Height-appropriate Desks with wheels and Chairs without wheels
- (12) Visibility Window
- (13) 6'-0" High Book Shelf
- (14) Bean Bag Chair with Polyurethane Upholstery
- (15) (3) 8'-0" Wide White Boards with Short Throw Projector
- (16) Flat Screen Display
- (17) Upholstered Bench with Book Shelf Below
- (18) Workroom
- (19) Resilient Flooring
- (20) Accent Carpet
- (21) Carpet



## 52 ELEMENTARY SCHOOL LEARNING SPACES DESIGN STANDARDS

## CEILINGS

• Ceilings should be primarily acoustically absorptive material. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

## FURNITURE

- Furniture scaled for young children should be the focus, with consideration for the weight and ease of mobility based on age. Desks and chairs should have lockable wheels.
- Whole-class instruction area, with associated classroom technology and flexible furniture should be provided.
- Movable whiteboards as a furniture solution may be provided to support small group instruction.
- The Media area should provide comfortable soft seating and a quiet environment for individual study/focus.
- Locations for electronic device charging carts should be considered, including adequate WiFi access and power to support the use of technology in daily curriculum.
- Comfortable, soft seating should be provided with access to power/wireless internet for personal devices.

## CASEWORK

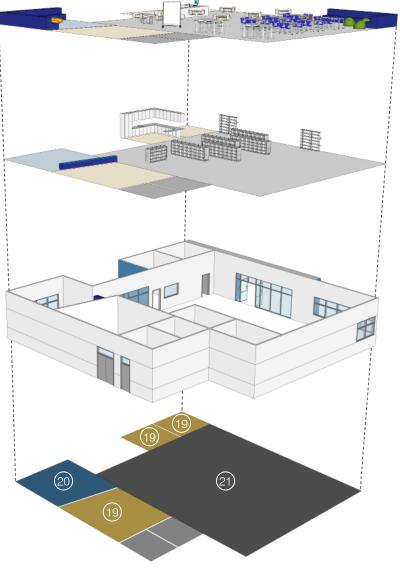
- Lockable upper and lower casework with a sink should be provided in the Workroom.
- Circulation desk with 2 workstations.
- The research area should provide a computer counter, available for students to search for books and/or online information.

## WALLS, DOORS & WINDOWS

- Writable wall surfaces should be provided at the large group instructional area as well as in the Team/ Study Rooms.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at the large group instructional area. A Promethean Board should also be considered.
- Acoustically absorptive finishes, including ceilings, floors and walls as necessary, should be used to maintain a quiet environment with multiple group activities occurring.

## FLOORING

- Carpet should be provided at the Library, Parent Community Center, Reading Room and Team/ Study Rooms.
- Resilient flooring at the Workroom and Storage Rooms.



## **MULTI-PURPOSE ROOM**

## ACTIVITIES

- Assemblies and large group presentations
- Community use
- Food service
- Student and teacher social gathering
- Overflow instructional activities for PE/ Fitness and Music

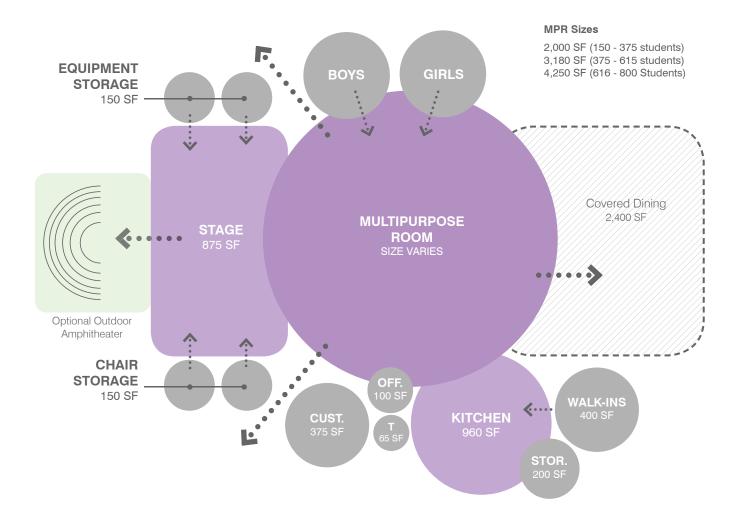
## **DESIGN OBJECTIVES & CHARACTERISTICS**

- The size of the Mutlipurpose Room space will vary depending on student population.
- Adjacent to parking/ after school events. MPR should be easy to locate from the parking lot with clear wayfinding and signage.
- The stage, if possible, will be two-sided with one side opening to an outdoor stage and amphitheater.
- Access to restrooms adjacent to lunch areas.
- Shade/ covered areas at exterior for dining.
- Direct access to the playground.
- Ample storage for chairs and tables, instructional equipment.
- Inspire students and instill a sense of pride through color, graphics, signage, and display areas.
- Food service area should have easy access and queuing system that flows through serving lines and into interior dining area, encouraging student use of food service.

## **SPATIAL FEATURES**

## (FURNITURE, FINISHES & EQUIPMENT)

- Finishes should be durable and accommodate the activities listed above. Flooring should be resilient, durable and easy to clean.
- Finishes at Food Service areas need to meet Health Department requirements.
- High-performance acoustic space that is durable and appropriate for dining and performance activities. Acoustic wall treatment to control sound during large events.
- Ceilings should be primarily acoustic with limited areas of dropped hard lid.
- Basketball hoops on walls to support physical education program.
- Controlled, dimmable lighting.
- Presentation system with good speakers, microphones and large drop-down screen.
- Convertible tables that can function as a bench of a table.



## **FITNESS LAB**

## ACTIVITIES

- Physical education
- Support PE classes and enable fitness and physical activity
- Sports, games, exercise
- Team building

## **DESIGN OBJECTIVES & CHARACTERISTICS**

- The Fitness Lab should be an open, flexible space to enable a variety of activities.
- The space should ideally have high ceilings, natural ventilation with mixed mode HVAC systems.
- Controlled natural daylighting and views to the exterior.
- Dedicated storage for fitness equipment.

## SPATIAL FEATURES

## (FURNITURE, FINISHES & EQUIPMENT)

- Durable finishes that accommodate the activities listed above. Resilient flooring throughout.
- Acoustical wall treatment that is sound absorbing.
- · Ceilings should be primarily acoustically absorptive material.
- Digital display area for announcements and student work should be located in the lobby.
- Presentation system with speakers and large digital screens.
- Writable wall surfaces should be provided at the presentation/ instructional area.
- Fitness equipment as required, including but not limited to stationary bikes and climbing wall hand holds.
- Tackable surfaces and/or magnetic display systems should be considered.







# **MIDDLE SCHOOLS**



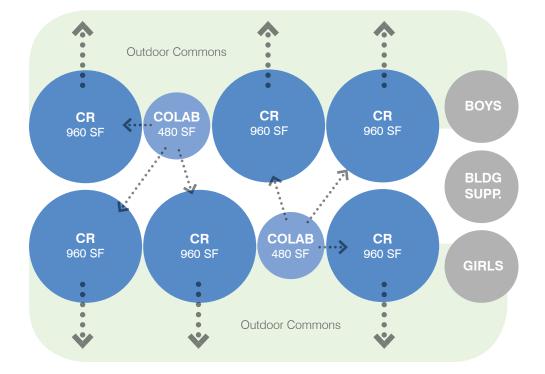
# <sup>60</sup> MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

# TYPICAL CLASSROOM

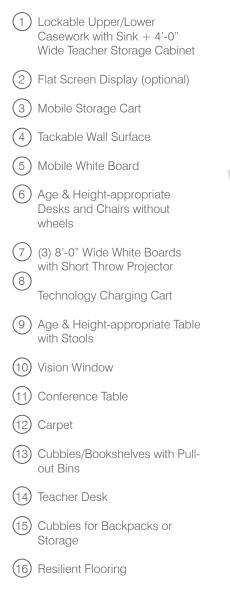
## **ACTIVITIES**

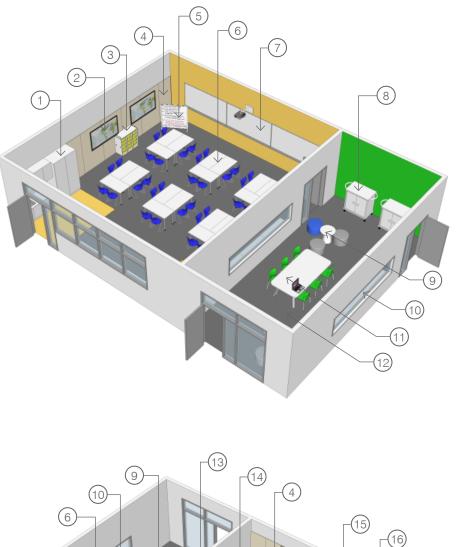
- Exploration and active learning
- Project-based learning for students to explore independent learning, group and team learning, including outdoor exploration

- The campus organization should group classrooms together with adjacencies to the dedicated Creativity Lab(s), Science Labs and Electives, where applicable, with acoustical separation as necessary. Clusters of learning pods will encourage instructor collaboration.
- Provide easy access to outdoor commons, including shade. •
- Collaboration spaces intended for student use should have good visibility for ease of monitoring by the teacher. •
- · Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming. •
- · Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Mobile technology use should be supported through a multitude of electrical outlets and a combination of data port locations, • with wireless internet access available and able to expand capacity in the future.









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## <sup>62</sup> MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

## CEILINGS

• Ceilings should be primarily acoustically absorptive material. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

## FURNITURE

- Furniture scaled for middle school students should be the focus, with consideration for the weight and ease of mobility based on age. Desks can have wheels; chairs should not have wheels. Furniture needs to be durable and easily cleanable.
- Include stools or different type of chair to encourage mobility and choice.
- Mobile whiteboards as a furniture solution may be provided to support small group instruction.
- Organized shelving or cubbies with small pull-out bins should be provided for student supplies and book storage. Student age and height should be considered when determining locations and shelf height.
- Maintain a teacher workstation/ desk.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.

## CASEWORK

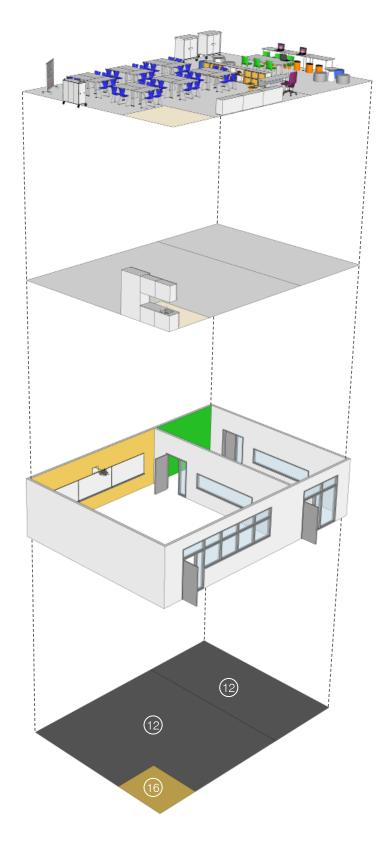
- A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.
- A sink with bubbler should be provided at the main entrance to the room.
- Cubbies should be provided for backpacks.

## WALLS, DOORS & WINDOWS

- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should also be considered.
- Wall hooks should be provided for student use, one for each student at a minimum.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

## FLOORING

- Resilient flooring should be provided at the 'wet' entry area.
- Carpet should be provided for the remainder of the room.





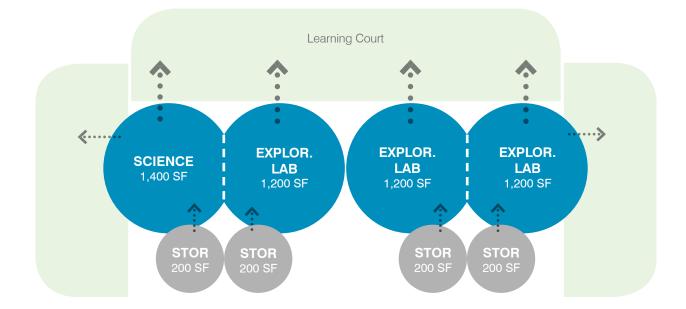
# 64 MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

# **EXPLORATIVES LAB**

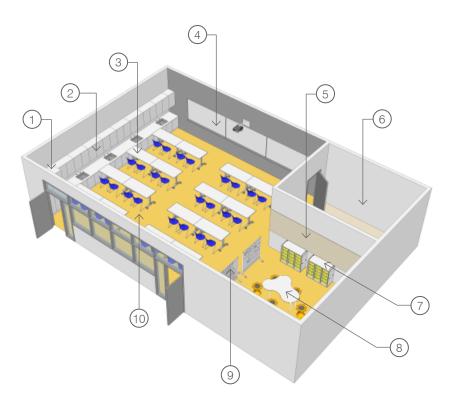
## ACTIVITIES

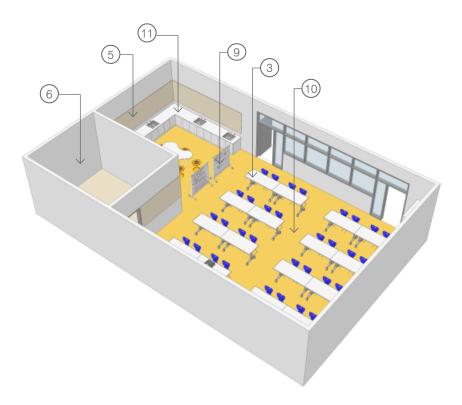
- Learner-centered instruction
- Hands-on lab experimentation and demonstration
- Small group projects and work sessions
- Technology-based lessons and work, ability to film project process and create a digital presentation of projects and ideas

- Support collaboration opportunities through collocation, and diverse shared support spaces.
- Spaces should be representative of the exploration and experimentation processes.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Adapt to changing technologies with flexible solutions such as pull-down power cord reels from the ceilings, and infrastructure to allow expandable utility access to power, data, wireless data, and water.
- Direct access to secure storage area for student work and/or projects.



- 1 Lockable 4'-0" Wide Storage Cabinet
- 2 Lockable Upper/Lower Casework with (4) Sinks
- Age & Height-appropriate Desks and Chairs without wheels
- (4) (3) 8'-0" Wide White Boards with Short Throw Projector
- (5) Tackable Wall Surface
- (6) Storage Room
- (7) Mobile Storage Cart
- 8 Small-Group Table and Stools
- (9) Mobile White Board
- (10) Resilient Flooring
- (1) Lockable Lower Casework with (4) Sinks
- (12) Epoxy Flooring





## 66 MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

#### CEILINGS

- Ceilings should include acoustically absorptive material, with indirect/direct lighting. Areas of the ceiling can be open to the structure above to provide learning opportunities.
- Retractable power cord reels.

#### **FURNITURE**

- Furniture that has flexibility in scale but appropriate for middle school age children should be the focus, with consideration for the weight and ease of mobility.
- Furniture surfaces should be durable and easily cleanable to support various hands-on activities.
- Move-able, adjustable work tables (with lockable wheels) and chairs (without wheels) that will support arts/ engineering/ project experimentation at seated and standing heights.
- Apron and project storage should be provided.
- Movable whiteboards as a furniture solution may be provided to support small group instruction.
- Organized mobile shelving or cubbies with small pull-out bins should be provided for student supplies. Include drying racks for Art.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.

## CASEWORK

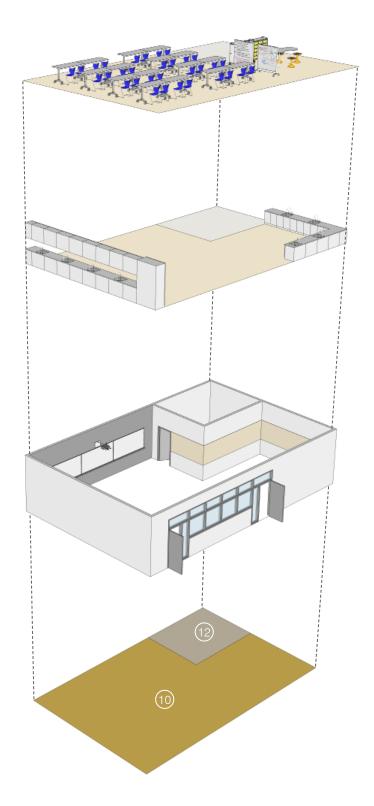
- Counter surfaces shall be easily cleanable.
- Lockable storage cabinets for supplies and materials.
- Multiple sinks with hot and cold water along perimeter walls.
- Teacher demonstration/ presentation area with access to power and technology.

### WALLS, DOORS & WINDOWS

- Tackable and magnetic wall surfaces for display of student work.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a short throw projector and whiteboard projection surface. Consider additional displays at small group areas.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Direct access to outdoor learning courtyard.

#### FLOORING

• Resilient flooring for easy cleanup and maintenance; that encourages 'messy' work and experimentation.





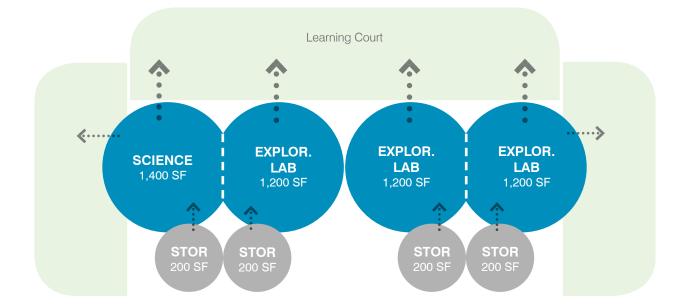
# 68 MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

# **SCIENCE LAB**

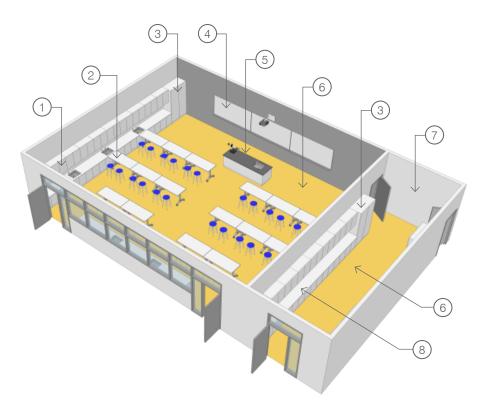
## ACTIVITIES

- Learner-centered instruction
- Hands-on lab experimentation and demonstration
- Small group projects and work sessions
- Technology-based lessons and work, ability to film project process and create a digital presentation of projects and ideas

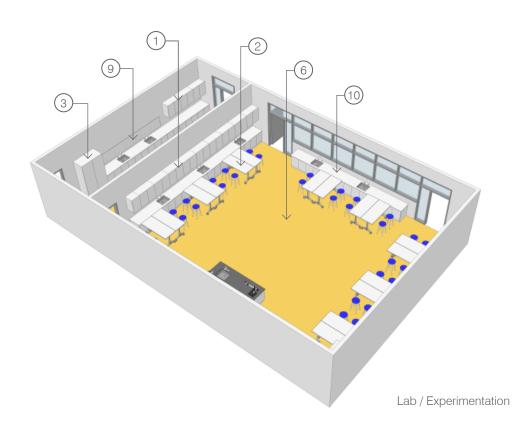
- Support collaboration opportunities through collocation, and diverse shared support spaces.
- Spaces should be representative of the exploration and experimentation processes.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Adapt to changing technologies with flexible solutions such as pull-down power cord reels from the ceilings, and infrastructure to allow expandable utility access to power, data, wireless data, and water.



- 1 Lockable Upper/Lower Casework with Sinks
- (2) Age & Height-appropriate Desks and Chairs without wheels
- 3 Lockable 4'-0" Wide Storage Cabinet
- (4) (3) 8'-0" Wide White Boards with Short Throw Projector
- (5) Teacher Demo Table with Sink
- (6) Resilient Flooring
- (7) Shared Prep Room
- 8 Lockable Upper/Lower Casework
- (9) Wall-Mounted Drying Racks
- (10) Lockable Lower Casework with Sinks



Lecture / Demonstration



# MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

#### CEILINGS

• Ceilings should include acoustically absorptive material, with indirect/direct lighting. Retractable power cord reels.

#### **FURNITURE**

- Furniture that has flexibility in scale but appropriate for middle school age children should be the focus, with consideration for the weight and ease of mobility.
- Casework/countertops to be chemical resistant and laboratory grade, lockable, integrated electrical and data outlets, and gas turrets as required.
- Move-able, adjustable work tables (with lockable wheels) and chairs (without wheels) that will support science project experimentation at seated and standing heights.
- Movable whiteboards as a furniture solution may be provided to support small group instruction.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.

## CASEWORK

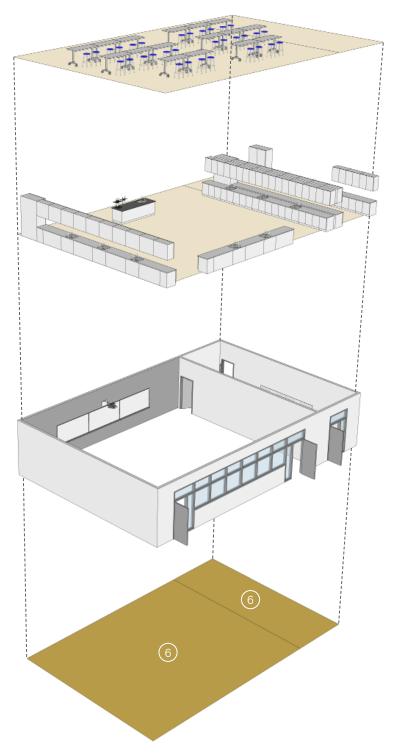
- Counter surfaces shall be easily cleanable.
- Lockable storage cabinets for supplies and materials in the Classroom and in the shared Prep Room.
- Multiple sinks with hot and cold water along perimeter walls. Recessed emergency eyewash and shower should be provided, as required.
- Fixed portion of the teacher demonstration table should have a sink, gas, electrical and data, with an adjacent mobile, adjustable-height table.
- Goggle, apron, and glassware storage should be provided. Steel chemical cabinets for acids and flammables in the Prep Room, as required.

## WALLS, DOORS & WINDOWS

- Tackable and magnetic wall surfaces for display of student work.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a short throw projector and whiteboard projection surface. Consider additional displays at small group areas.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Direct access to outdoor learning courtyard.

#### FLOORING

• Resilient flooring for easy cleanup and maintenance; that encourages 'messy' work and experimentation.





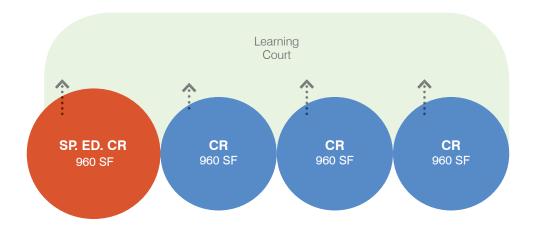
# MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

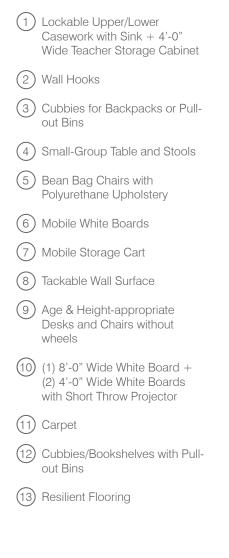
# **SPECIAL EDUCATION - OPTION 1**

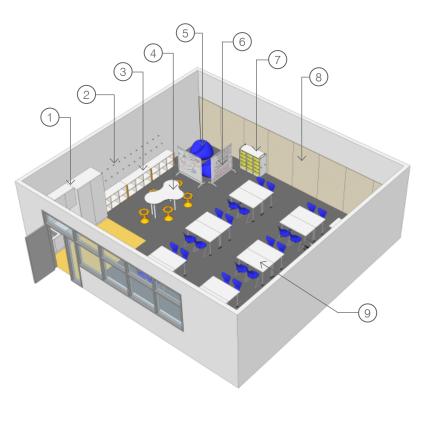
## ACTIVITIES

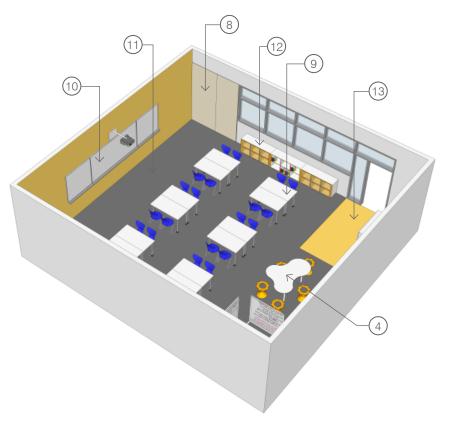
- Individual Educational Program (IEP)
- Student-centered planning
- · Assessment and instruction in the least restrictive environment
- Development of and improvement of communication and language skills
- Assistive technology and communication devices for those in need
- Instructional program includes transition planning

- Integrate special education into campus 'Least Restrictive Environment' to have full inclusion of special education students on campus.
- All support spaces should have good visibility for ease of monitoring by the teacher.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches and dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Integrated learning assistance technology should be provided as needed.









# <sup>74</sup> MIDDLE SCHOOLLEARNING SPACES DESIGN STANDARDS

#### CEILINGS

• Ceilings should be primarily acoustically absorptive material. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

#### FURNITURE

- Furniture scaled age appropriately should be the focus, with consideration for the weight and ease of mobility based on age. Move-able desks (with wheels) and chairs (without wheels).
- Furniture surfaces should be durable and easily cleanable to support various hands-on activities.
- A minimum of one kidney-type table should be provided for small group work. Include stools or different type of chair to encourage mobility and choice.
- Mobile whiteboards as a furniture solution may be provided to support small group instruction.
- Organized mobile shelving or cubbies with small pull-out bins should be provided for student supplies and book storage. Student age and height should be considered when determining locations and shelf height.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.
- Designate a teacher workstation/desk area but allow for more than one location for flexibility.

#### CASEWORK

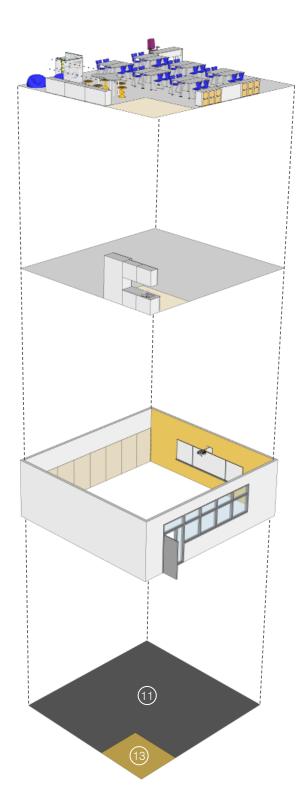
- A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.
- A sink should be provided at the main entrance to the room.
- Cubbies should be provided for backpacks below the wall hooks.

#### WALLS, DOORS & WINDOWS

- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should also be considered.
- Wall hooks should be provided for student use, one for each student at a minimum.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

#### FLOORING

• Carpet should be provided for the majority of the room. Resilient flooring should be provided at the 'wet' entry area.



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# MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

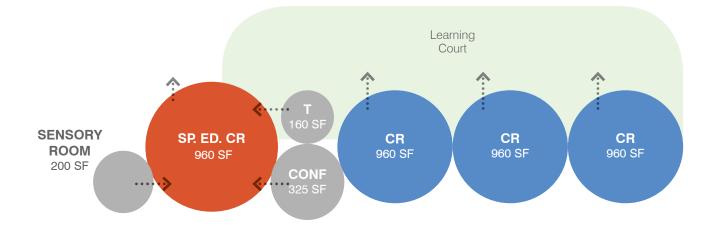
# **SPECIAL EDUCATION - OPTION 2**

#### ACTIVITIES

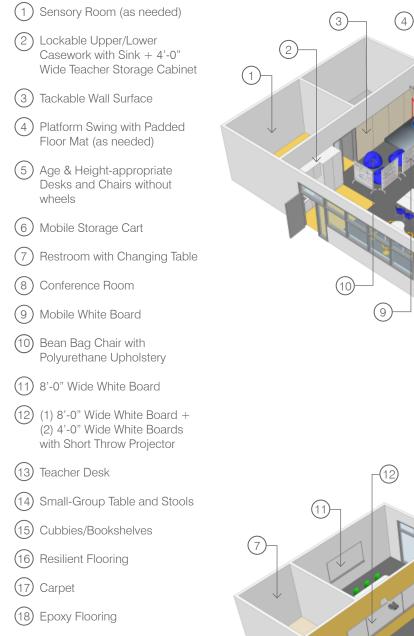
- Individual Educational Program (IEP)
- Student-centered planning
- Assessment and instruction in the least restrictive environment
- Development of and improvement of communication and language skills
- Assistive technology and communication devices for those in need
- Instructional program includes transition planning

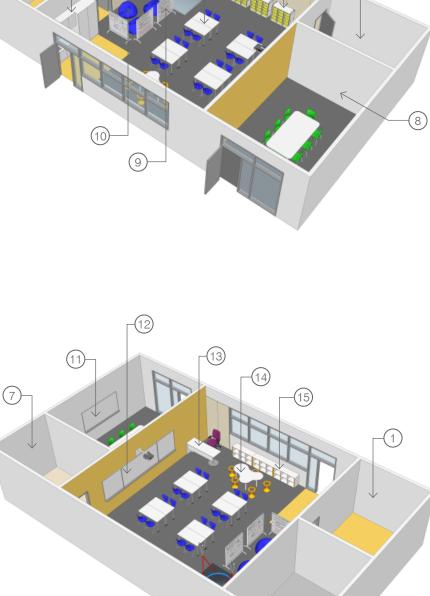
### **DESIGN OBJECTIVES & CHARACTERISTICS**

- Integrate special education into campus 'Least Restrictive Environment' to have full inclusion of special education students on campus.
- The spaces should be calming utilize warm colors and minimal patterns.
- Dimmable lighting with high color rendering index (CRI 85 or higher) to reduce student sensitivities.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Integrated learning assistance technology should be provided as needed.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- For new construction, structural consideration should be given for hanging equipment.
- All support spaces should have good visibility for ease of monitoring by the teacher.
- Sensory room to have high-acoustical separation and visual connection to the classroom but not to the exterior; the ability to darken the space is ideal.
- A unisex restroom should include a changing table (as required) with a lift.









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#### CEILINGS

• Ceilings should be highly acoustic to reduce reverberation time and include acoustical wall treatments. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

#### FURNITURE

- Furniture scaled for young children should be the focus, with consideration for the weight and ease of mobility based on age. Desks and chairs should not have wheels.
- A minimum of one kidney-type table should be provided for small group work. Include stools or different type of chair to encourage mobility and choice.
- Mobile acoustical/whiteboards as a furniture solution to create an area to support small group instruction.
- Organized mobile shelving or cubbies with small pull-out bins should be provided for student supplies and book storage. Student age and height should be considered when determining locations and shelf height.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.
- Designate a teacher workstation/desk area but allow for more than one location for flexibility.

#### CASEWORK

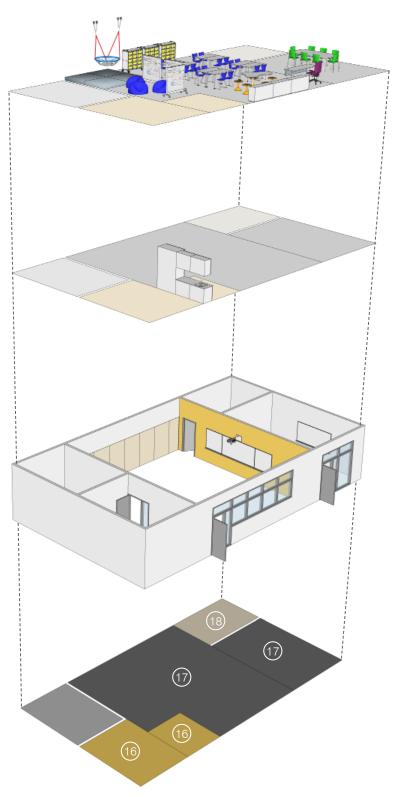
- A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.
- A sink should be provided at the main entrance to the room.
- Cubbies should be provided for backpacks below the wall hooks.

#### WALLS, DOORS & WINDOWS

- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should also be considered.
- Wall hooks should be provided for student use, one for each student at a minimum. Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

#### FLOORING

- Flooring should be carpet throughout most of the space. Resilient flooring at wet areas; epoxy flooring at restrooms, and carpet in sensory rooms, and conference spaces.
- Safety padding at platform swing.



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## **LEARNING CENTER**

#### ACTIVITIES

- One-on-one instruction
- Small group instruction
- Tutoring, Counseling
- Conferences and meetings
- IEP meetings
- Testing and observation

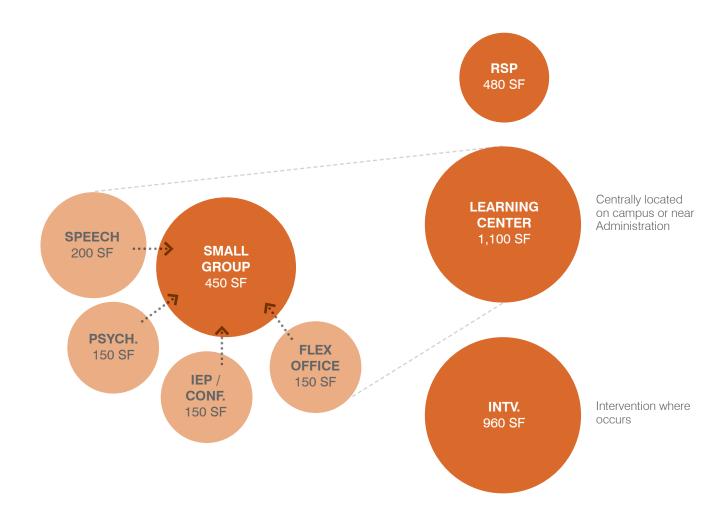
#### **DESIGN OBJECTIVES & CHARACTERISTICS**

- Acoustical separation and privacy between rooms.
- Visual connection of all rooms to exterior and to small group room.
- Dimmable lighting with high color rendering index (CRI 85 or higher) should be provided to reduce student sensitivities.
- Lighting should be occupant-controlled through shading devices.
- The spaces should be calming utilize warm colors and minimal patterns.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems and the ability to operate windows.
- Technology integration should be supported in each space.

#### **SPATIAL FEATURES**

#### (FURNITURE, FINISHES & EQUIPMENT)

- Finishes should accommodate the activities listed above. Flooring should be carpeted.
- Ceiling should be highly acoustic to reduce reverberation time and include acoustical wall treatments.
- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Digital monitors for sharing or working at computer stations should be provided.
- Ergonomic workstations with comfortable, soft seating areas and student-friendly furniture should be provided.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.





## **ADMINISTRATION**

#### ACTIVITIES

- Check-in, Front Entry
- Administrative duties
- Discipline meetings
- Counseling
- Health support
- Staff collaboration and professional development
- Attendance, enrollment, supply/records storage

#### **DESIGN OBJECTIVES & CHARACTERISTICS**

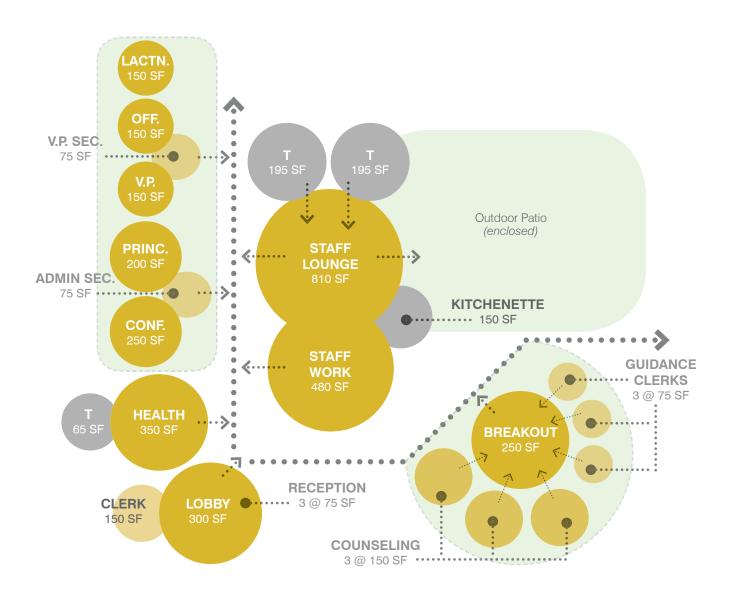
- Define a clear, single-point of entry to campus.
- Create an inviting lobby where students, parents and community members are exposed to a welcoming entry with student work on display and comfortable seating.
- The Staff Work/Lounge should be a fluid space that allows for social interaction and professional collaborative space.
- Administration spaces should be accessible to visitors, yet allow for private and confidential conversations. Clearly delineate public versus private space.
- Spaces should be acoustically separated.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems and the ability to operate windows.
- Large conference room should accommodate 12-15 people. Small conference room should accommodate 6-8 people.
- Provide a private lactation room; include comfortable soft furnishings and dimmable lights.

#### **SPATIAL FEATURES**

#### (FURNITURE, FINISHES & EQUIPMENT)

- Finishes should accommodate the activities listed above. Flooring should be carpet in office/conference areas and resilient in workrooms and the health office.
- Ceilings should be primarily acoustic with limited areas of dropped hard lid.
- Digital display area for announcements and student work should be located in the lobby.
- Casework at standing and seated working heights should be provided at the reception area and workrooms.
- The Health Office should include casework with a work area, lockable storage cabinets for student medicine and a refrigerator with ice maker. Ceiling-hung cubicle curtains should be provided to separate the cot area.

## <sup>82</sup> MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS



# LIBRARY / MEDIA CENTER

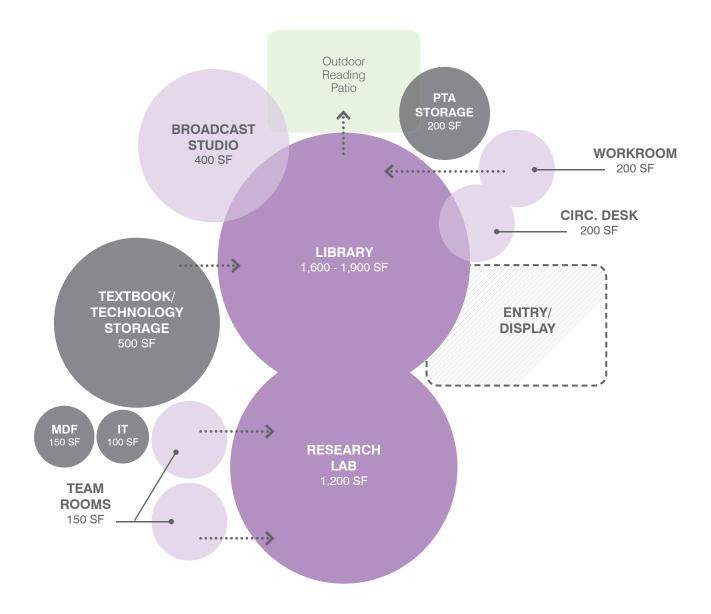
#### ACTIVITIES

- · Collaborative research, group instruction, technology exploration, self-directed study, and quiet reading
- Circulation of materials and resources
- Student work display and presentation
- Research, self-directed information investigation
- Content creation
- Small and large group instruction
- Community access (if applicable)

#### **DESIGN OBJECTIVES & CHARACTERISTICS**

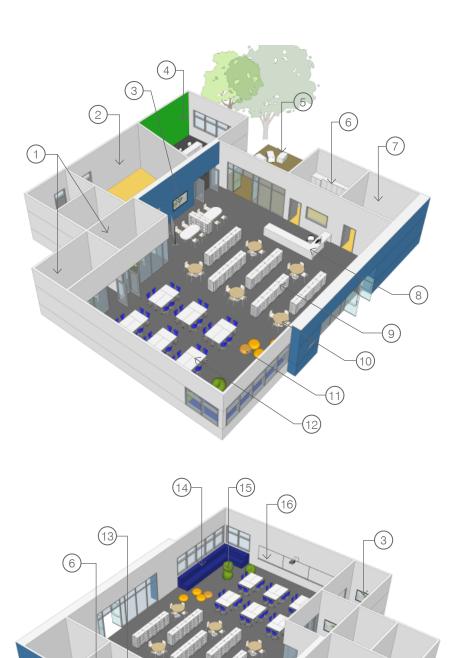
- Support technology-rich individual research and investigation, along with acoustically separated, visually connected group and team working spaces.
- Space should serve as a resource and parent/ community center. Include a dedicated PTA storage room. Consider before / after school hours for parent and/or student access.
- Create zones for a variety of activities, group sizes and noise levels. Include a presentation/ meeting area with integrated technology, that can accommodate a typical class.
- Direct access to an outdoor, shaded reading patio that has WiFi access.
- Equip and provide infrastructure to support meeting/ presentation area.
- Two Team/Study Rooms provide quieter areas for study and small group work. Include a green screen space and support for video recording capabilities.
- Promote student and staff interaction in a comfortable, stimulus-rich environment that will support multiple concurrent activities.
- Locate close to parking for community events.
- Controlled natural daylighting and views to the exterior, with soft, ambient indirect lighting and task lighting available in select areas with the ability to adjust.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems and the ability to operate windows.
- The Research Lab should provide a technology-rich setting with flexible furnishings.
- Technology-rich workstations and meeting spaces, with connectivity to internet and easy sharing of mobile devices should be the focus throughout the space.

<sup>84</sup> MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS





- Study Rooms
   Textbook Storage Room
- (3) Flat Screen Display
- (4) Green Screen Wall
- (5) Outdoor Reading Patio
- 6 Lockable Upper/Lower Casework with Sink
- (7) PTA Storage Room
- (8) Circulation Desk
- 9 42" High Book Shelves
- (10) 42"-48" Round Tables with Chairs
- (11) Padded Pouf Stool with Stain Resistant Upholstery
- (12) Age & Height-appropriate Desks with wheels and Chairs without wheels
- (13) Visibility Window
- (14) Two-Tier Padded Benches with Polyurethane Upholstery
- (15) Bean Bag Chair with Polyurethane Upholstery
- (16) (3) 8'-0" Wide White Boards with Short Throw Projector
- (17) Workroom
- (18) Resilient Flooring
- (19) Accent Carpet
- (20) Carpet



# <sup>86</sup> MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

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#### CEILINGS

• Ceilings should be primarily acoustically absorptive material. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

#### FURNITURE

- Furniture scaled age appropriately should be the focus, with consideration for the weight and ease of mobility based on age. Desks and chairs should have lockable wheels.
- Whole-class instruction area, with associated classroom technology and flexible furniture should be provided.
- Movable whiteboards as a furniture solution may be provided to support small group instruction.
- The Media area should provide comfortable soft seating and a quiet environment for individual study/focus.
- Locations for electronic device charging carts should be considered, including adequate WiFi access and power to support the use of technology in daily curriculum.
- Comfortable, soft seating should be provided with access to power/wireless internet for personal devices.

#### CASEWORK

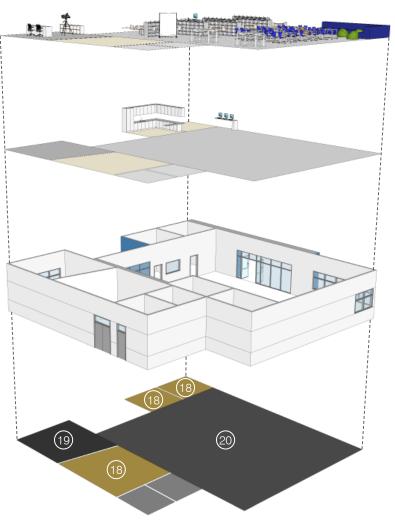
- Lockable upper and lower casework with a sink should be provided in the Workroom.
- Circulation desk with 2 workstations.
- The research area should provide a computer counter, available for students to search for books and/or online information.

#### WALLS, DOORS & WINDOWS

- Writable wall surfaces should be provided at the large group instructional area as well as in the Team/ Study Rooms.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at the large group instructional area. A Promethean Board should also be considered.
- Acoustically absorptive finishes, including ceilings, floors and walls as necessary, should be used to maintain a quiet environment with multiple group activities occurring.

#### FLOORING

- Carpet should be provided at the Library, Parent Community Center, Reading Room and Team/ Study Rooms.
- Resilient flooring at the Workroom and Storage Rooms.



# **CAMPUS ACTIVITY CENTER**

#### ACTIVITIES

- Campus hub
- Assemblies and large group presentations
- Community use
- Food service / social gathering
- Student and teacher social gathering
- Overflow instructional activities for PE/ Fitness and Music

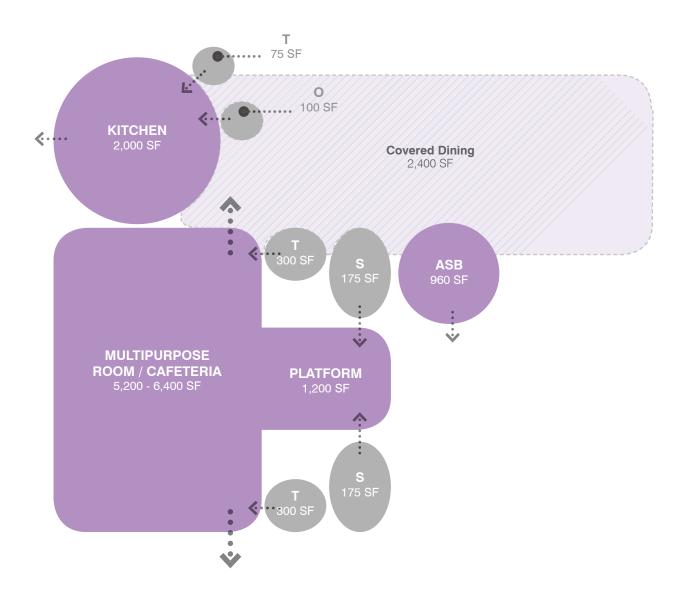
#### **DESIGN OBJECTIVES & CHARACTERISTICS**

- The size of the Mutlipurpose Room space will vary depending on student population.
- Adjacent to parking/ after school events. MPR should be easy to locate from the parking lot with clear wayfinding and signage.
- The stage, if possible, will be two-sided with one side opening to an outdoor stage and amphitheater.
- Access to restrooms adjacent to lunch areas.
- Shade/ covered areas at exterior for dining.
- Direct access to the playground.
- Ample storage for chairs and tables, instructional equipment.
- Inspire students and instill a sense of pride through color, graphics, signage, and display areas.
- Food service area should have easy access and queuing system that flows through serving lines and into interior dining area, encouraging student use of food service.

### SPATIAL FEATURES

#### (FURNITURE, FINISHES & EQUIPMENT)

- Finishes should be durable and accommodate the activities listed above. Flooring should be resilient, durable and easy to clean.
- Finishes at Food Service areas need to meet Health Department requirements.
- High-performance acoustic space that is durable and appropriate for dining and performance activities. Acoustic wall treatment to control sound during large events.
- Ceilings should be primarily acoustic with limited areas of dropped hard lid.
- Basketball hoops on walls to support physical education program.
- Controlled, dimmable lighting.
- Presentation system with good speakers, microphones and large drop-down screen.
- Convertible tables that can function as a bench of a table.



# 90 MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

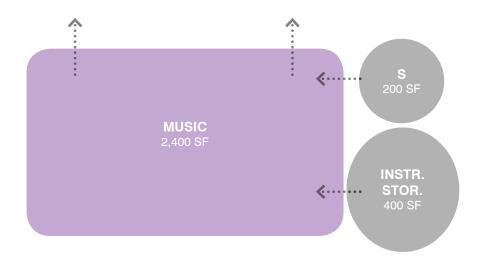


#### ACTIVITIES

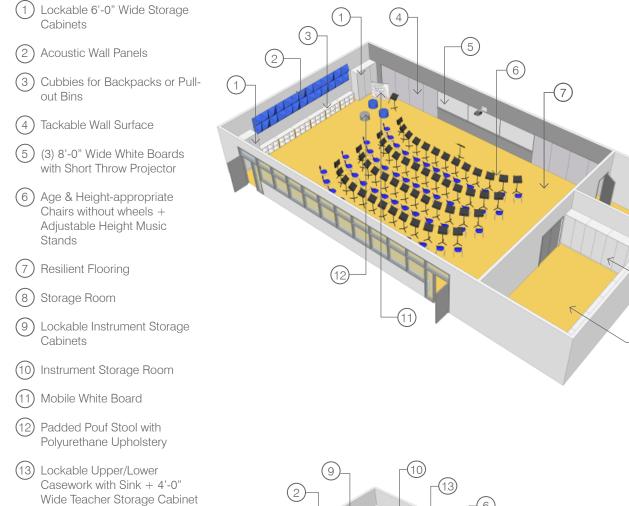
- Large group instruction, ensemble and performance
- Hands-on experience through rehearsals and practice
- Music instruction and appreciation at all beginning and intermediate levels
- Display of awards and event announcements

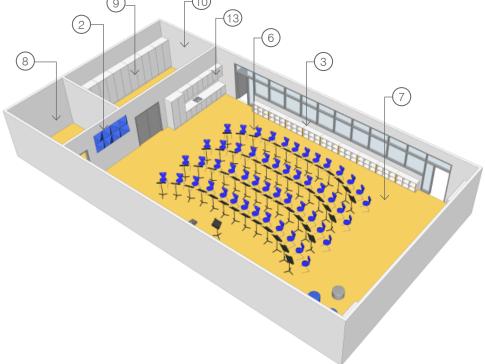
#### **DESIGN OBJECTIVES & CHARACTERISTICS**

- Centrally locate with other Classrooms to encourage program connections.
- Support active and interactive learning with the use of furniture that allows for flexible arrangements.
- Acoustically separate space from other Classrooms. Provide high-performing acoustics within the space to be able to support musical activities.
- Direct access to a Learning Courtyard for small group collaborative work and practice. Visibility across classroom space to outdoor space for supervision.
- Dedicated, lockable storage for instruments, music and equipment.
- Provide a sink for cleaning instruments.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.









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# MIDDLE SCHOOL LEARNING SPACES DESIGN STANDARDS

#### CEILINGS

- Ceilings should be primarily acoustically absorptive material, with indirect/direct lighting.
- Strobe light alert for PA system announcements.

#### FURNITURE

- Furniture that has flexibility in scale but appropriate for middle school children should be the focus, with consideration for the weight and ease of mobility. Include height adjustable chairs and music stands.
- Allow for technology connectivity at several locations to allow for multiple presentation areas.
- Organized shelving or cubbies with small pull-out bins should be provided for student supplies.

#### CASEWORK

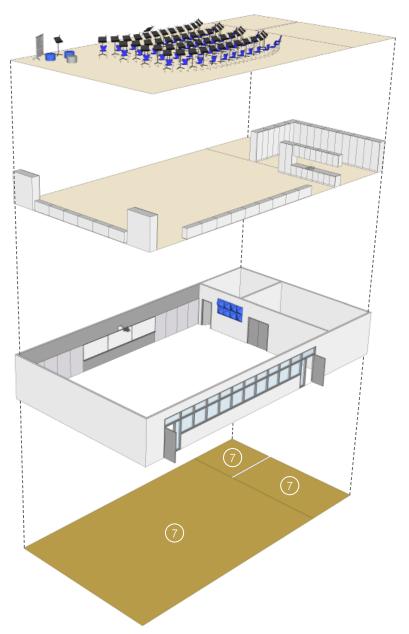
- Lockable storage cabinets for instruments.
- One sink with hot and cold water and lockable casework for storage of class materials.
- Cubbies with small pull-out bins for storage of backpacks, instruments and student belongings.

#### WALLS, DOORS & WINDOWS

- Tackable and magnetic wall surface and display area for student achievements and event announcements.
- Markerboards with staff lines; locate at large group and small group areas.
- Keep in mind finishes contribute to acoustical qualities; include materials and acoustic panel treatments that absorb sound.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a short throw projector and whiteboard projection surface.
- Allow for multiple performance areas and small group/ensemble practice area.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Direct access to outdoor learning courtyard.

#### FLOORING

• Resilient flooring for easy cleanup and maintenance.





### **GYMNASIUM**

#### ACTIVITIES

- Physical education/ Fitness/ Athletics
- Instructional activities
- · Assemblies and large group performances/ presentations
- Community use
- Social gathering

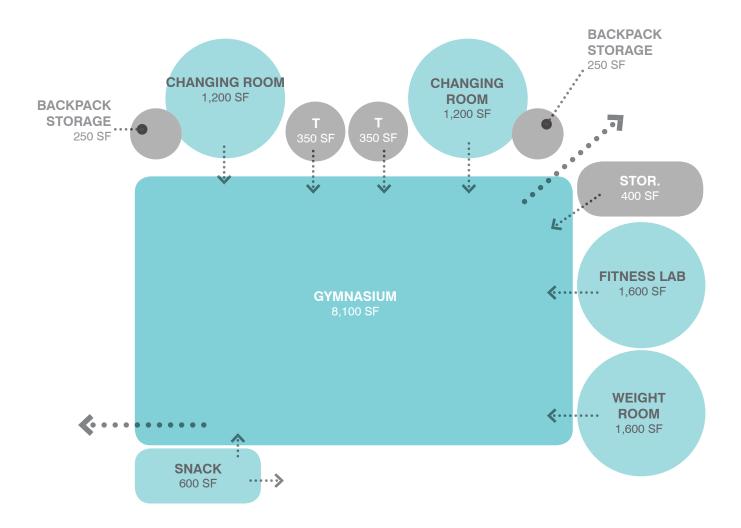
#### **DESIGN OBJECTIVES & CHARACTERISTICS**

- Inspire students and instill a sense of school pride through colors, graphics, signage and award display areas.
- Locate near Multipurpose Room, parking with access to hardcourts and playfields.
- Size of the Gym should accommodate one regulation size court.
- Ample storage for physical education/ athletic equipment.
- Fitness Lab provides a flexible use classroom space that could support aerobics and dance activities.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems. Consider the use of ceiling fans to increase air circulation in a large space.

### SPATIAL FEATURES

#### (FURNITURE, FINISHES & EQUIPMENT)

- Finishes should accommodate the activities listed above. Gym flooring should be a sprung wood floor. Sports flooring or sprung wood flooring at the Fitness Lab. Rubber flooring appropriate for activities and equipment in the Weight Room. Sealed concrete or epoxy flooring in the Changing Rooms.
- High-performance acoustic space that is durable and appropriate for physical activities. Acoustic wall treatment to control sound in all activity areas.
- In general, ceilings should be acoustically absorptive and durable. Acoustical decking in the Gym and Changing Rooms. Acoustical ceilings at the Fitness Lab and Weight Room areas.
- Display areas for awards and scheduling.
- Digital display area for announcements. Include an audio-visual system with presentation capabilities.
- Recycling area for storage and collection of recyclables.





# **HIGH SCHOOLS**





# HIGH SCHOOL LEARNING SPACES DESIGN STANDARDS

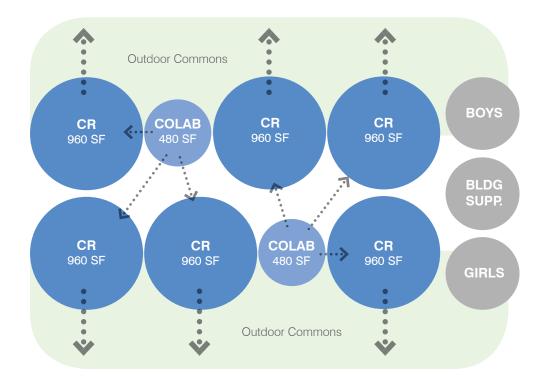
# **TYPICAL CLASSROOM**

#### ACTIVITIES

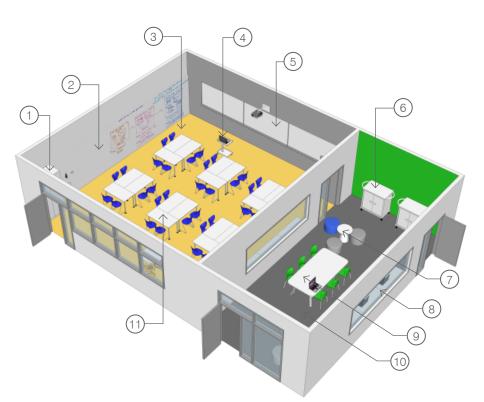
- Active and passive learning
- Exploration and inspirational
- Project-based learning for students to explore independent learning, group and team learning, including outdoor exploration

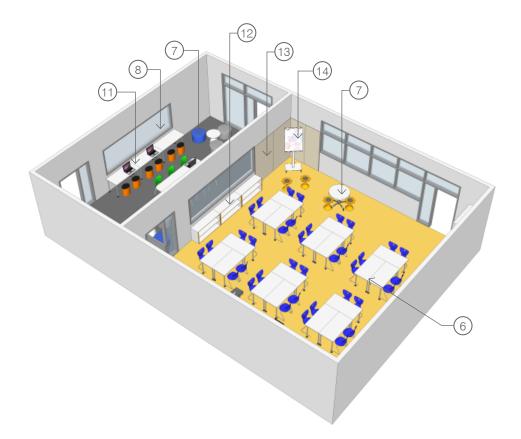
#### **DESIGN OBJECTIVES & CHARACTERISTICS**

- The campus organization should group classrooms together by departments/ discipline in clusters of learning pods that will encourage instructor collaboration.
- Maximize flexibility, and allow for choice of space most appropriate to support learning activity.
- Provide easy access to outdoor commons, including shade.
- All Classrooms should have access to a shared Collaboration (CoLab) space. This space is multi-use and should be able to support concurrent activities. Collaboration spaces intended for student use should have good visibility for ease of monitoring by the teacher.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Mobile technology use should be supported through a multitude of electrical outlets and a combination of data port locations, with wireless internet access available and able to expand capacity in the future.



- LEGEND (1) Lockable 4'-0" Wide Teacher Storage Cabinet (2) White Board Wall Surface (3) Resilient Flooring (4) Mobile Teaching/Presentation Cart (5) (3) 8'-0" Wide White Boards with Short Throw Projector (6) Technology Charging Cart (7)Age & Height-appropriate Table with Stools (8) Vision Window (9)Conference Table (10)Carpet (11) Age & Height-appropriate Desks and Chairs with wheels (12) Low Height Open Bookshelves
- (13) Tackable Wall Surface
- Mobile White Board (14)





#### CEILINGS

• Ceilings should be primarily acoustically absorptive material. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

#### FURNITURE

- Furniture scaled for high school students, with consideration of weight and ease of mobility. Desks and chairs shall be mobile and on casters. Furniture needs to be durable and easily cleanable.
- Include stools or different type of chair to encourage mobility and choice.
- Mobile whiteboards as a furniture solution may be provided to support small group instruction.
- Organized shelving should be provided for student supplies and book storage. Storage units can be mobile.
- Maintain a teacher podium station to encourage untethered approach.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.

#### CASEWORK

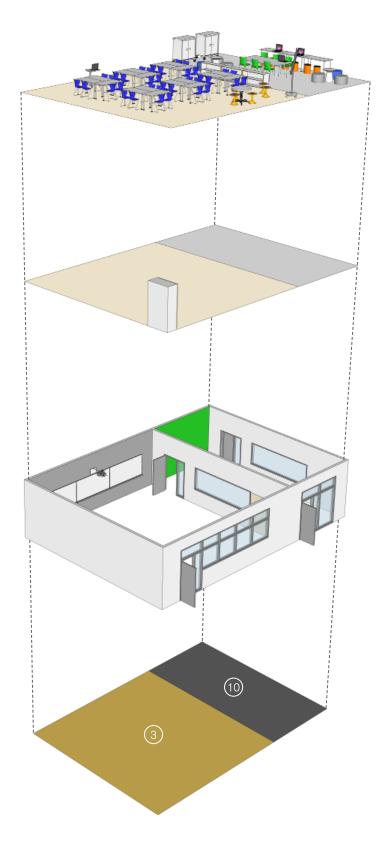
• A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.

#### WALLS, DOORS & WINDOWS

- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out. Full height writable surfaces at areas to allow for flexible collaboration.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should also be considered.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

#### FLOORING

- Resilient flooring throughout to encourage flexibility and movement.
- Carpet should be provided in the CoLab.





# 102 HIGH SCHOOL LEARNING SPACES DESIGN STANDARDS

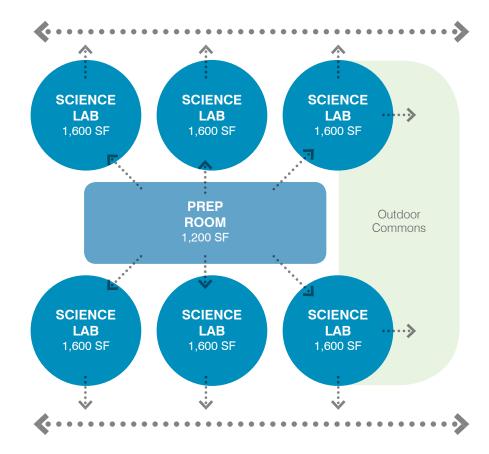
# **SCIENCE LAB**

#### ACTIVITIES

- Learner-centered instruction
- Hands-on lab experimentation and demonstration
- Whole class lectures and demonstrations
- Small group projects and work sessions

#### **DESIGN OBJECTIVES & CHARACTERISTICS**

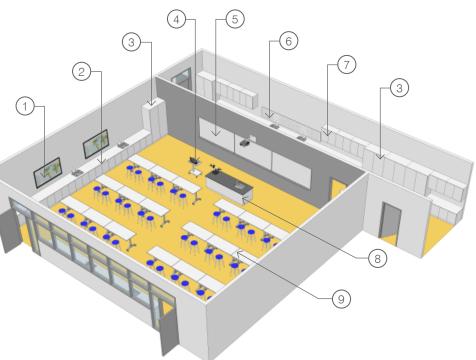
- Support collaboration opportunities through collocation, and diverse shared support spaces. Provide easy access to outdoor, shaded commons.
- Spaces should be representative of the exploration and experimentation processes.
- Prep Room ideally runs the length of the building (or Labs).
- Lockable casework for storage shall be provided with more storage in the Prep Room than in the Classroom.
- Design for perimeter casework with sinks and gas; mobile work tables to create peninsulas or other seating. Design for four (4) person student lab workstations.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies. Consider utilizing building features that encourage learning opportunities.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Adapt to changing technologies with flexible solutions such as pull-down power cord reels from the ceilings, and infrastructure to allow expandable utility access to power, data, wireless data, and water.



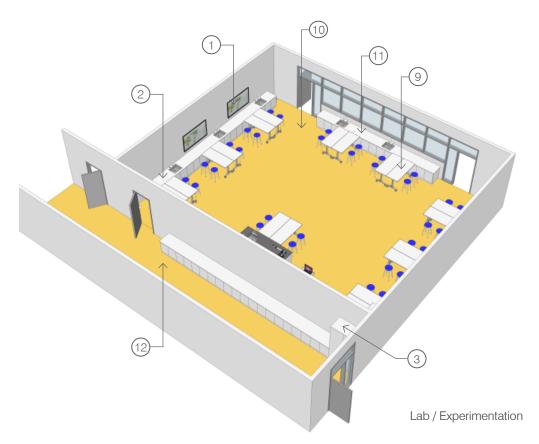


- Flat Screen Display (optional)
   Lockable Lower Casework with

   Sinks
   Lockable 4'-0" Wide Storage Cabinet
   Mobile Teaching/Presentation Cart
   (3) 8'-0" Wide White Boards with Short Throw Projector
   Wall-Mounted Drying Racks
   Lockable Upper Casework
   Teacher Demo Table with Sink
- (9) Age & Height-appropriate Desks and Stools with wheels
- (10) Resilient Flooring
- (11) Lockable Lower Casework with (2) Sinks
- (12) Shared Prep Room



Lecture / Demonstration



## 104 HIGH SCHOOL LEARNING SPACES DESIGN STANDARDS

#### CEILINGS

• Ceilings should include acoustically absorptive material, with indirect/direct lighting. Retractable power cord reels.

#### FURNITURE

- Furniture that has flexibility in scale and height but appropriate for high school age children, with consideration for the ease of mobility.
- Casework/countertops to be chemical resistant and laboratory grade, lockable, integrated electrical and data outlets, and gas turrets as required.
- Move-able, adjustable work tables and chairs (with lockable wheels) that will support science project experimentation at seated and standing heights.
- Movable whiteboards as a furniture solution may be provided to support small group instruction.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.
- Maintain a teacher podium station to encourage untethered approach.

#### CASEWORK

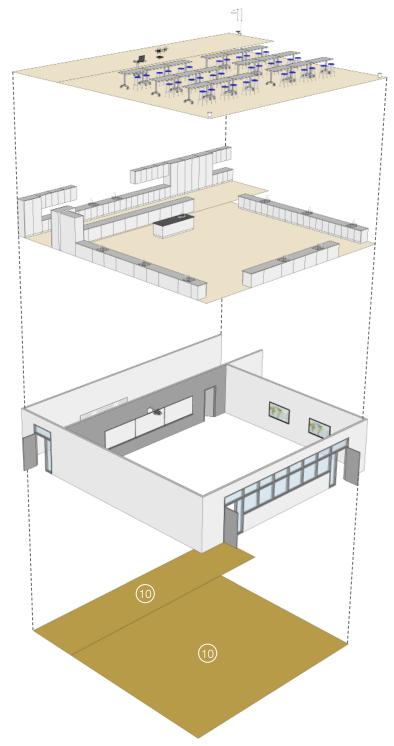
- Casework/countertops to be chemical resistant and laboratory grade.
- Lockable storage cabinets for supplies and materials; with more storage in the Prep Room.
- Multiple lab sinks with hot and cold water along perimeter walls. Recessed emergency eyewash and shower should be provided (preferably away from exit doors).
- Fixed portion of the teacher demonstration table should have a sink, gas, electrical and data, with an adjacent mobile, adjustable-height table.
- Goggle, apron, and glassware storage should be provided. Steel chemical cabinets for acids and flammables, as required.

#### WALLS, DOORS & WINDOWS

- Tackable and magnetic wall surfaces for display of student work.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a short throw projector and whiteboard projection surface. Consider additional displays at small group areas.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Direct access to outdoor learning courtyard.

#### FLOORING

 Resilient flooring for easy cleanup and maintenance; that encourages 'messy' work and experimentation.





# HIGH SCHOOLLEARNING SPACES DESIGN STANDARDS

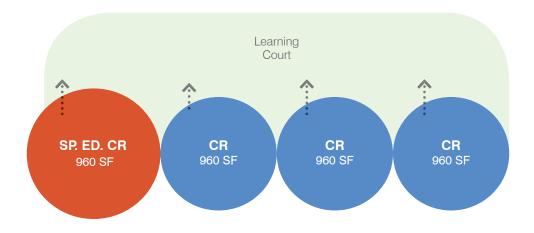
# **SPECIAL EDUCATION - OPTION 1**

#### **ACTIVITIES**

- Individual Educational Program (IEP)
- Student-centered planning
- · Assessment and instruction in the least restrictive environment
- Development of and improvement of communication and language skills
- Assistive technology and communication devices for those in need
- Instructional program includes transition planning

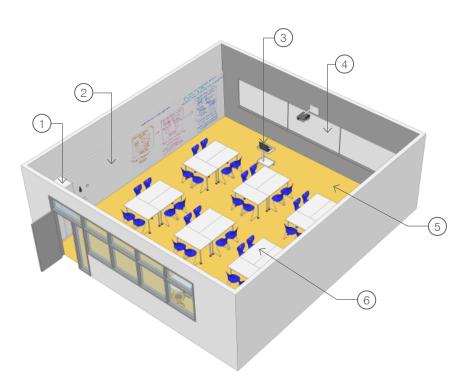
#### **DESIGN OBJECTIVES & CHARACTERISTICS**

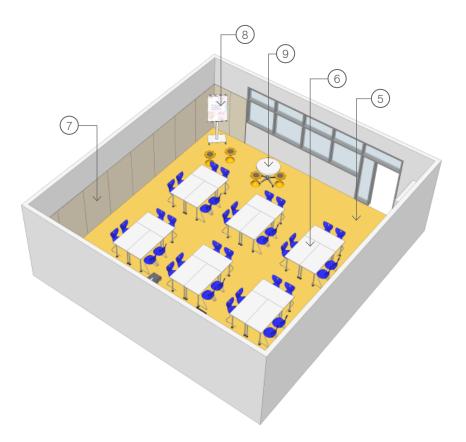
- Integrate special education into campus 'Least Restrictive Environment' to have full inclusion of special education students on campus.
- Classroom shall include the same features and amenities as a typical classroom to allow for flexibility in campus organization.
- All support spaces should have good visibility for ease of monitoring by the teacher.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom. •
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- · Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches and dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Integrated learning assistance technology should be provided as needed. •





- 1 Lockable 4'-0" Wide Teacher Storage Cabinet
- (2) White Board Wall Surface
- (3) Mobile Teaching/Presentation Cart
- (4) (3) 8'-0" Wide White Boards with Short Throw Projector
- (5) Resilient Flooring
- 6 Age & Height-appropriate Desks and Chairs with wheels
- (7) Tackable Wall Surface
- (8) Mobile White Board
- 9 Age & Height-appropriate Table with Stools





#### CEILINGS

· Ceilings should be primarily acoustically absorptive material. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

#### **FURNITURE**

- · Furniture scaled for high school students, with consideration of weight and ease of mobility. Desks and chairs shall be mobile and on casters.
- Furniture needs to be durable and easily cleanable.
- Include stools or different type of chair to encourage mobility and choice.
- Mobile whiteboards as a furniture solution may be provided to support small group instruction.
- Organized mobile shelving should be provided for • student supplies and book storage.
- Designate a teacher workstation/desk area but allow for more than one location for flexibility.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.

#### CASEWORK

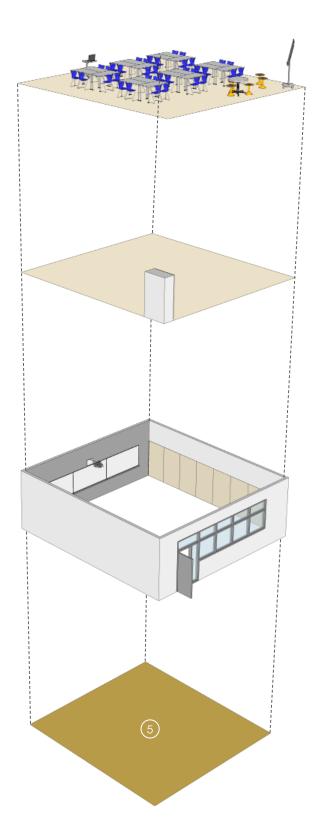
• A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.

#### WALLS, DOORS & WINDOWS

- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out. Full height writable surfaces at areas to allow for flexible collaboration.
- Disperse display areas throughout, at varying heights. Tackable surfaces and/or magnetic display systems should be considered.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should also be considered.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

#### **FLOORING**

 Resilient flooring throughout to encourage flexibility and movement.







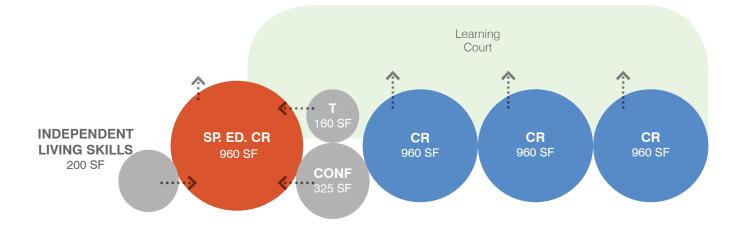
## **SPECIAL EDUCATION - OPTION 2**

#### **ACTIVITIES**

- Individual Educational Program (IEP)
- Student-centered planning •
- · Assessment and instruction in the least restrictive environment
- Development of and improvement of communication and language skills
- Assistive technology and communication devices for those in need •
- Instructional program includes transition planning

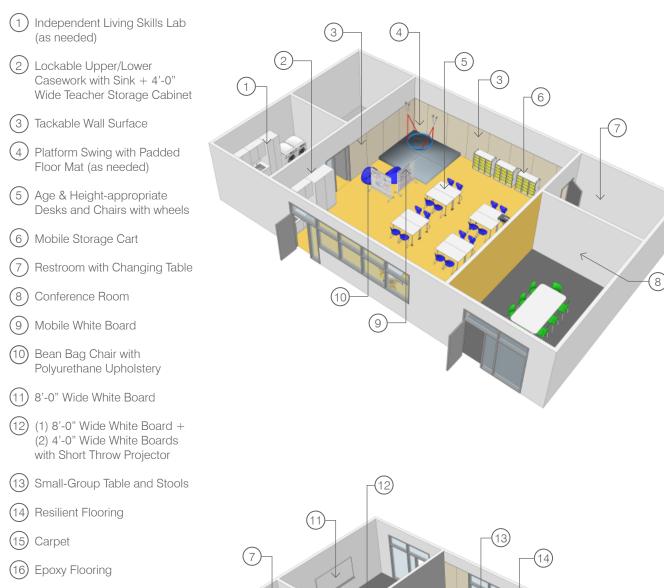
## **DESIGN OBJECTIVES & CHARACTERISTICS**

- · Integrate special education into campus 'Least Restrictive Environment' to have full inclusion of special education students on campus.
- Classroom should be self-contained with direct access to Independent Living Skills Lab, Restrooms with a changing table and hoist, and Conference Room (can be also used for testing).
- The spaces should be calming utilize warm colors and minimal patterns. •
- . Dimmable lighting with high color rendering index (CRI 85 or higher) to reduce student sensitivities.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows • and improve air circulation and comfort through ceiling fans.
- Integrated learning assistance technology should be provided as needed. •
- Classrooms should be acoustically separated with high-performing acoustics within the classroom. •
- For new construction, structural consideration should be given for hanging equipment. •
- All support spaces should have good visibility for ease of monitoring by the teacher.
- · Sensory room to have high-acoustical separation and visual connection to the classroom but not to the exterior; the ability to darken the space is ideal.
- A unisex restroom should include a changing table (as required) with a lift.





#### LEGEND



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#### **SPATIAL FEATURES**

#### CEILINGS

• Ceilings should be highly acoustic to reduce reverberation time and include acoustical wall treatments. In areas that are dedicated to small group or individual focus, lower ceilings can provide a sense of scale.

#### FURNITURE

- Furniture scaled for high school students, with consideration of weight and ease of mobility. Desks can have casters; chairs should not have wheels.
- Furniture needs to be durable and easily cleanable.
- A minimum of one kidney-type table should be provided for small group work. Include stools or different type of chair to encourage mobility and choice.
- Mobile acoustical/whiteboards as a furniture solution to create an area to support small group instruction.
- Organized mobile shelving or cubbies with small pull-out bins should be provided for student supplies and book storage. Student age and height should be considered when determining locations and shelf height.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.
- Designate a teacher workstation/desk area but allow for more than one location for flexibility.

#### CASEWORK

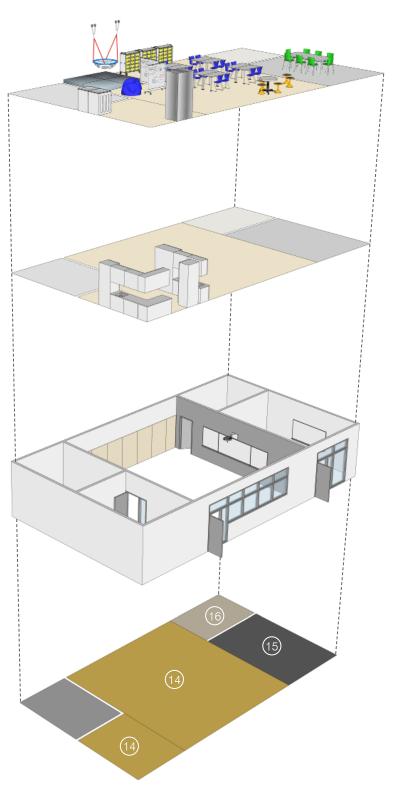
- A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.
- A sink should be provided at the main entrance to the room.
- Open shelving/ cubbies should be provided for backpacks.

#### WALLS, DOORS & WINDOWS

- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Disperse display areas throughout, at varying heights. Full height tackable surfaces and/or magnetic display systems should be considered.
- A short-throw or ceiling mounted projector and large whiteboard projection surface should be provided at class discussion space. A Promethean Board should also be considered.
- Wall hooks should be provided for student use, one for each student at a minimum. Roller shades should be provided at all window locations, including door sidelights and view windows in doors.

#### FLOORING

- Flooring should be resilient flooring throughout most of the space to encourage flexibility and movement. Epoxy flooring at restrooms, and carpet in sensory rooms, and conference spaces.
- Safety padding at platform swing.





## **LEARNING CENTER**

#### ACTIVITIES

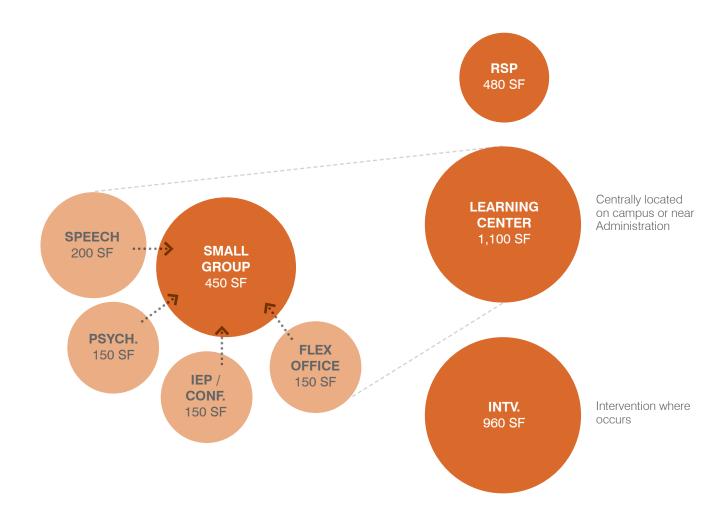
- One-on-one instruction
- Small group instruction
- Tutoring, Counseling
- Conferences and meetings
- IEP meetings
- Testing and observation

## **DESIGN OBJECTIVES & CHARACTERISTICS**

- Acoustical separation and privacy between rooms.
- Visual connection of all rooms to exterior and to small group room.
- Dimmable lighting with high color rendering index (CRI 85 or higher) should be provided to reduce student sensitivities.
- Lighting should be occupant-controlled through shading devices.
- The spaces should be calming utilize warm colors and minimal patterns.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems and the ability to operate windows.
- Technology integration should be supported in each space.

## **SPATIAL FEATURES**

- Finishes should accommodate the activities listed above. Flooring should be carpeted.
- Ceiling should be highly acoustic to reduce reverberation time and include acoustical wall treatments.
- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out.
- Digital monitors for sharing or working at computer stations should be provided.
- Ergonomic workstations with comfortable, soft seating areas and student-friendly furniture should be provided.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.



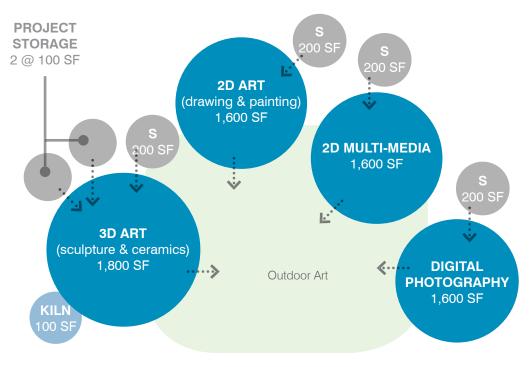


## ACTIVITIES

- Instructional activities
- Group and individual project-based learning
- Discussions of design theory and principles of design
- Presentation of art work/ curate an art exhibit, build a portfoliio
- 2D drawing/ sketching/ painting/ multi-media/ digital illustration/ photo manipulation/ collage/ photo or video composition and editing/ research/ web design
- Small group projects and work sessions
- Technology-based lessons and work, ability to create a digital presentation of projects and ideas
- 3D art would include wheel throwing, ceramics firing and glazing, and computer research.

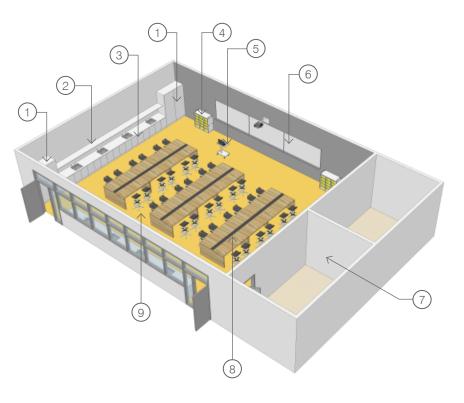
## **DESIGN OBJECTIVES & CHARACTERISTICS**

- Support collaboration opportunities through collocation, and diverse shared support spaces.
- Allow for flexibility within the Classroom to support different program and activity needs. Program areas for easels.
- Classrooms should open up to a shared outdoor Art courtyard where student art can be displayed.
- Access to a central storage room shared amongst multiple Art classrooms.
- Spaces should be representative of the exploration and experimentation processes.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Adapt to changing technologies with flexible solutions such as pull-down power cord reels from the ceilings, and infrastructure to allow expandable utility access to power, data, wireless data, and water.
- Direct access to secure storage area for student work and/or projects.
- 3D Art will have all features in the 2D Art classroom but also include pottery wheels, a glazing area, and kiln area with proper ventilation.

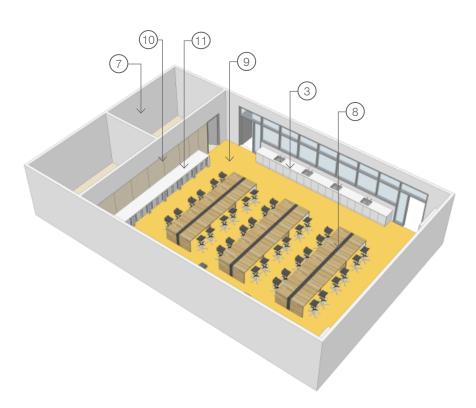


### LEGEND

- 1 Lockable 5'-0" Wide Storage Cabinet
- (2) Wall-Mounted Shelf
- (3) Lockable Lower Casework with(4) Sinks
- (4) Mobile Storage Cart
- (5) Mobile Teaching/Presentation Cart
- (6) (3) 8'-0" Wide White Boards with Short Throw Projector
- (7) Storage Room
- (8) Age & Height-appropriate Stationary Tables and Stools with wheels
- (9) Resilient Flooring
- (10) Tackable Wall Surface
- (11) Counter Surface over Mobile Large-Format Storage Drawers
- (12) Epoxy Flooring



2D Art / 2D Multi-Media



#### **SPATIAL FEATURES**

#### CEILINGS

- Ceilings should include acoustically absorptive material, with indirect/direct lighting. Areas of the ceiling can be open to the structure above to provide learning opportunities.
- Retractable power cord reels on overhead tracks.

#### **FURNITURE**

- Furniture scaled for high school students, with consideration of weight and ease of mobility. Tables and chairs shall be mobile and on casters.
- Furniture surfaces should be durable and easily cleanable to support various activities.
- Move-able, height adjustable work tables and chairs (with lockable wheels) that will support hands-on projects at seated and standing heights.
- Apron and project storage should be provided.
- Organized mobile shelving with small pull-out bins should be provided for student supplies.
- Large, move-able drawers and drying racks for drawings (2D Art) and ceramic objects (3D Art).
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.
- Maintain a teacher podium station to encourage untethered approach.

#### CASEWORK

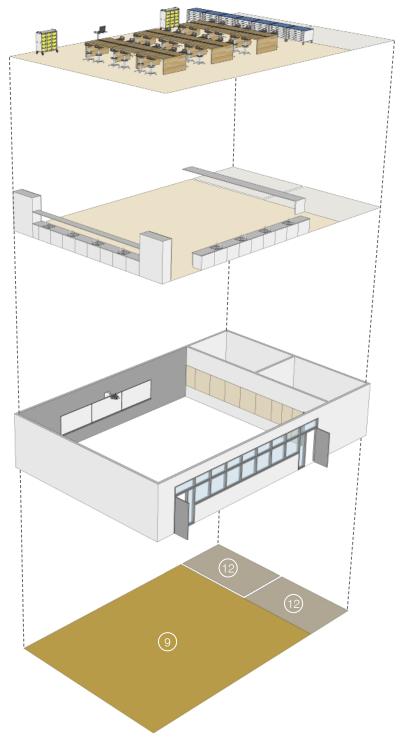
- Counter surfaces shall be easily cleanable.
- Lockable storage cabinets for supplies and materials.
- Multiple sinks with hot and cold water along perimeter walls.
- Teacher demonstration/ presentation area with access to power and technology.

#### WALLS, DOORS & WINDOWS

- Tackable and magnetic wall surfaces for display of student work.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a short throw projector and whiteboard projection surface. Consider additional displays at small group areas.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Direct access to outdoor learning courtyard.

#### **FLOORING**

 Resilient flooring with floor drains for easy cleanup and maintenance; that encourages 'messy' work.





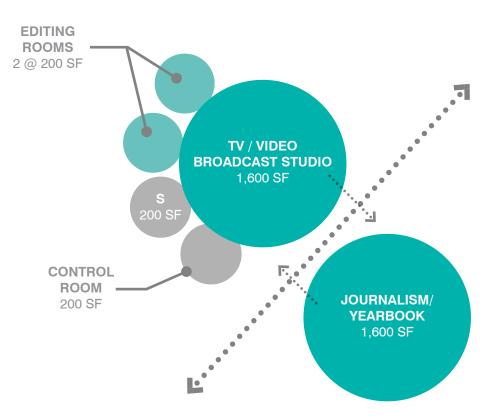
# **ELECTIVE LAB**

## ACTIVITIES

- Exploration and active learning
- Project-based learning for students to explore independent learning, group and team learning, including outdoor exploration
- Develop skills in photo development and composition
- Understanding current technologies, practices, and programs used in graphic arts, multi-media/ journalism, video production and/or business
- Create a challenging work environment that replicates today's professional practice

## **DESIGN OBJECTIVES & CHARACTERISTICS**

- The campus organization should group classrooms together with related programs, where applicable, with acoustical separation as necessary. Clusters of learning pods will encourage instructor collaboration.
- Design for flexibility in the space to adapt to various Electives as they may change. Design features according to program need, as required.
- Support spaces intended for student use should have good visibility for ease of monitoring by the teacher.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Mobile technology use should be supported through a multitude of electrical outlets and a combination of data port locations, with wireless internet access available and able to expand capacity in the future.



### LEGEND

- (1) Lockable 4'-0" Wide Storage Cabinet (2) White Board Wall Surface (3) Mobile Teaching/Presentation Cart (4) (3) 8'-0" Wide White Boards with Short Throw Projector (5) Lockable Upper/Lower Casework with (4) Sinks (6) Flat Screen Display (7)Vision Window (8) Age & Height-appropriate Desks and Chairs with wheels (9) Resilient Flooring Tackable Wall Surface (10)Student Small Group Space (11) (12) Carpet

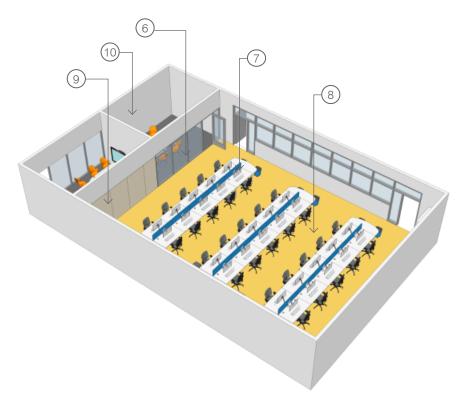
3

(4)

(2)

(1)

Yearbook / Journalism / Business



#### **SPATIAL FEATURES**

#### CEILINGS

• Ceilings should include acoustically absorptive material, with indirect/direct lighting. Areas of the ceiling can be open to the structure above to provide learning opportunities.

#### FURNITURE

- Furniture scaled for high school students, with consideration of weight and ease of mobility. Tables and chairs shall be mobile and on casters. Furniture should reflect a professional office setting.
- In the Conference Room/ Small Group Room provide conference table with write-able surface, integrated technology with video conferencing capabilities.
- Move-able, height adjustable work tables and chairs (with lockable wheels) that will support activities at seated and standing heights.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.
- Teacher podium station to encourage untethered approach.

#### CASEWORK

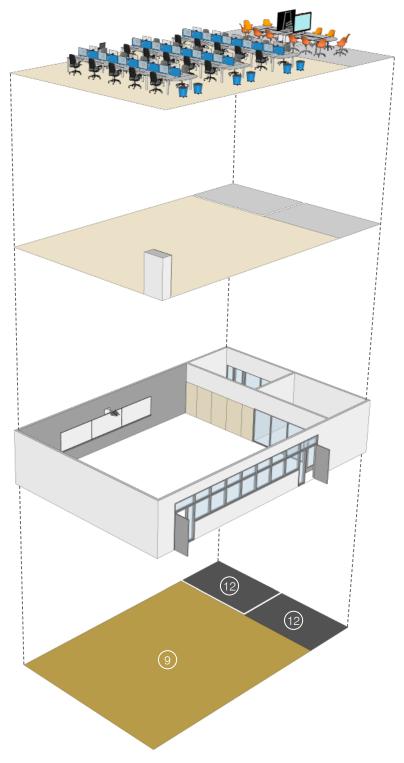
• A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.

#### WALLS, DOORS & WINDOWS

- Teacher demonstration/ presentation area with access to writeable surface, power and technology.
- Disperse writable surfaces throughout, with locations for communal gathering and small-group break-out. Full height writable surfaces at areas to allow for flexible collaboration.
- Tackable and magnetic wall surfaces for display of student work.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a short throw projector and whiteboard projection surface. Additional display at small group/ conference area.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Direct access to outdoor learning courtyard.

#### FLOORING

- Resilient flooring throughout to encourage flexibility and movement.
- Carpet in Conference Room/ Control Room.





# **HIGH BAY ELECTIVE LAB**

## ACTIVITIES

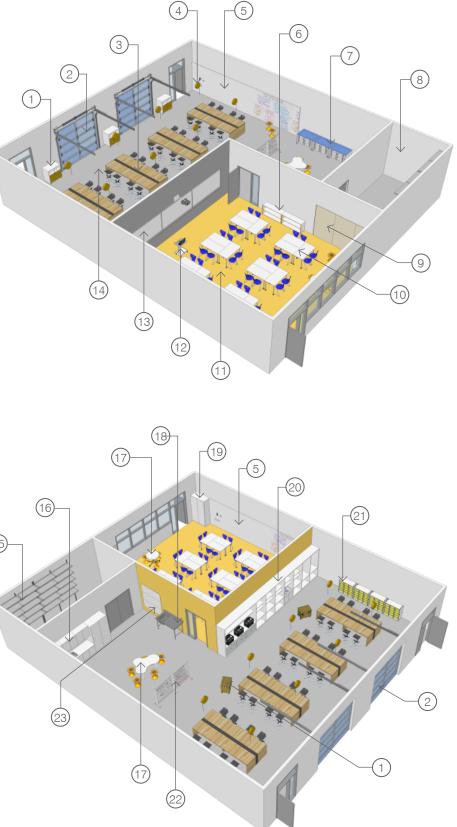
- Exploration and active learning
- Project-based learning for students to explore independent learning, group and team learning, including outdoor exploration
- Individual, hands-on activities where students can gain 'real world' applicable skills
- Large group demonstration and lecture

## **DESIGN OBJECTIVES & CHARACTERISTICS**

- The campus organization should group classrooms together with related programs/ fields of study, where applicable, with acoustical separation as necessary. Clusters of learning pods will encourage instructor collaboration.
- Provide hands-on, 'real world' scenario for students to experience possible career applications.
- Create an open, flexible classroom environment with space and infrastructure that will respond to changing technology and program needs.
- Showcase student work through exterior glazing.
- Provide easy access to outdoor learning courtyard, including shade.
- Collaboration spaces intended for student use should have good visibility for ease of monitoring by the teacher.
- Classrooms should be acoustically separated with high-performing acoustics within the classroom. Consider sound absorbing acoustic wall treatment to mitigate noise in large volume space.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Design systems with appropriate ventilation systems for use. Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans, as appropriate.
- Mobile technology use should be supported through a multitude of electrical outlets and a combination of data port locations, with wireless internet access available and able to expand capacity in the future.







### **SPATIAL FEATURES**

#### CEILINGS

- Ceilings should be acoustical deck, with indirect/ direct lighting.
- Retractable power cord reels on overhead tracks.

#### FURNITURE

- Furniture scaled for high school students. Large format, group tables and chairs appropriate to support shop activities.
- Organized mobile shelving with small pull-out bins should be provided for student tools and supplies.
- The Lecture space should include all features identified for Typical Classroom. Move-able, height adjustable work tables and chairs (with lockable wheels) that will support activities at seated and standing heights.
- Goggle, apron and project storage should be provided.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology in daily curriculum.
- Teacher podium station to encourage untethered approach.

#### CASEWORK

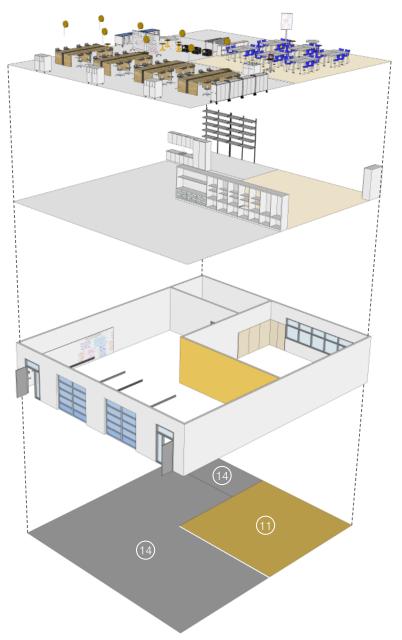
- A 4'-0" wide lockable storage cabinet for teacher supplies and materials should be provided.
- In Shop space, provide multiple sinks for clean up with lockable upper and lower storage cabinets for supplies and materials.
- Open shelving for tool and materials storage.

#### WALLS, DOORS & WINDOWS

- Teacher demonstration/ presentation area with access to writable surface, power and technology.
- Disperse writable surfaces throughout, with locations for communal gathering and smallgroup break-out. Full height writable surfaces at areas to allow for flexible collaboration. Mobile markerboards to allow for flexibility.
- Tackable and magnetic wall surfaces for display of student work.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a short throw projector and whiteboard projection surface. Additional display at small group/ idea generation area.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Direct access to outdoor learning courtyard.

#### FLOORING

- In the Shop space, epoxy flooring throughout with floor drains for durability and ease of cleaning.
- Resilient flooring in Lecture space to encourage flexibility and movement. Epoxy flooring can be considered.





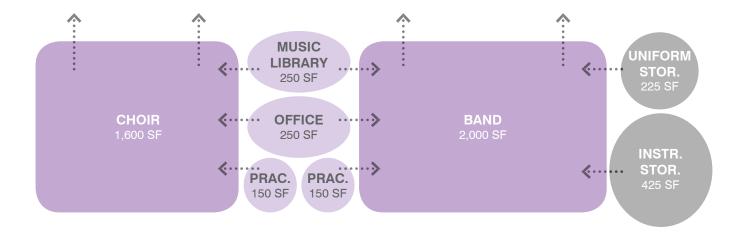


## ACTIVITIES

- Large group instruction, ensemble and performance
- Hands-on experience through rehearsals and practice
- Music instruction and appreciation at all beginning, intermediate and advanced levels
- Display of awards and event announcements

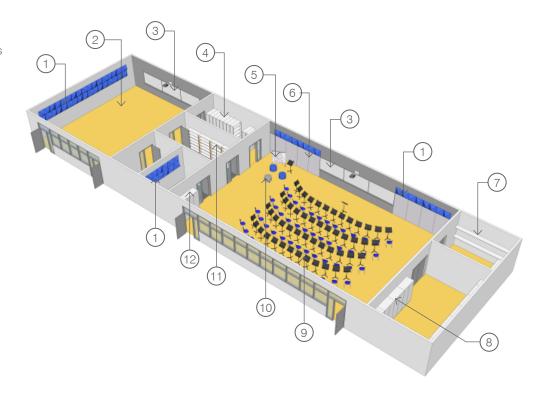
## **DESIGN OBJECTIVES & CHARACTERISTICS**

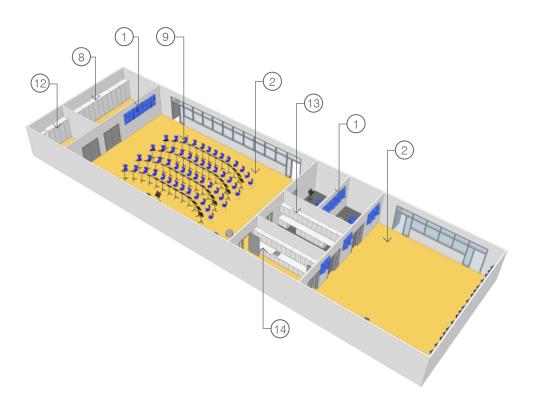
- Support collaboration opportunities through collocation, and shared support spaces.
- Support active and interactive learning with the use of furniture that allows for flexible arrangements.
- Acoustically separate space from other Classrooms. Provide high-performing acoustics within the space to be able to support musical activities.
- Direct access to Practice Rooms and an outdoor, shaded Learning Courtyard for small group collaborative work and practice. Visibility across classroom space to outdoor space for supervision.
- Teachers office should have clear visibility into the Classroom for ease of supervision.
- Dedicated, lockable storage for instruments, music and equipment.
- Provide a sink for cleaning instruments.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.



#### LEGEND

- 1 Acoustic Wall Panels
- 2 Resilient Flooring
- (3) (3) 8'-0" Wide White Boards with Short Throw Projector
- (4) Tall High-Density Music Storage
- (5) Mobile White Board
- (6) Tackable Wall Surface
- (7) Shelves with Clothes Rod
- (8) Tall Instrument Storage Cabinets
- (9) Age & Height-appropriate Chairs without wheels + Adjustable Height Music Stands
- (10) Padded Pouf Stool with Polyurethane Upholstery
- (11) Tall Open Bookshelves
- (12) (2) 4'-0" Wide Lockable Storage Cabinets
- (13) Lockable Upper/Lower Casework with Space for (2) Chairs
- (14) Lockable Upper/Lower Casework with Sink
- (15) Carpet





### **SPATIAL FEATURES**

#### CEILINGS

- Ceilings should be primarily acoustically absorptive material, with indirect/direct lighting.
- Strobe light alert for PA system announcements.

#### FURNITURE

- Furniture that has flexibility in scale but appropriate for high school students, with consideration for the weight and ease of mobility. Include height adjustable chairs and music stands.
- Allow for technology connectivity at several locations to allow for multiple presentation areas.
- Organized shelving should be provided for student supplies (ie. music).

#### CASEWORK

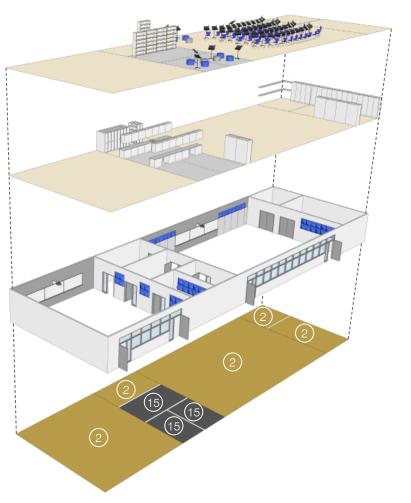
- Lockable storage cabinets for instruments and student belongings.
- One sink with hot and cold water and lockable casework for storage of class materials.

#### WALLS, DOORS & WINDOWS

- Tackable and magnetic wall surface and display area for student achievements and event announcements.
- Markerboards with staff lines; locate at large group, small group/ ensemble areas and practice rooms.
- Keep in mind finishes contribute to acoustical qualities; include materials and acoustic panel treatments that absorb sound.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a short throw projector and whiteboard projection surface.
- Allow for multiple performance areas and small group/ensemble practice area.
- Roller shades should be provided at all window locations, including door sidelights and view windows in doors.
- Direct access to outdoor learning courtyard.

#### FLOORING

• Resilient flooring for easy cleanup and maintenance.





# **PERFORMING ARTS**

#### ACTIVITIES

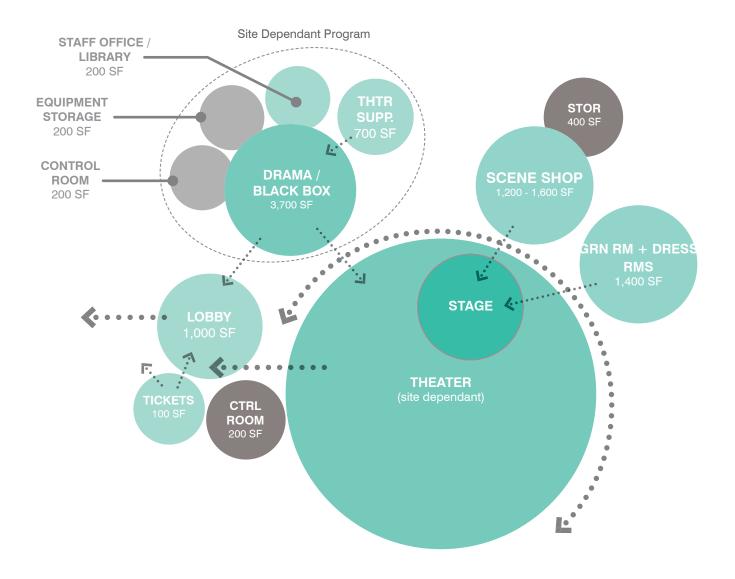
- Exploration and active learning
- Project-based learning for students to explore independent learning, group and team learning
- Rehearsals and performances
- Development of technical and improvisation techniques
- Practice and record
- Broadcast live audio and video to the lobby and campus

## **DESIGN OBJECTIVES & CHARACTERISTICS**

- The campus organization should group classrooms together with other Performing Arts program components, with acoustical separation as necessary to encourage collaboration between teachers and students.
- · Classrooms should emulate the performance environment.
- Collaboration/ support spaces intended for student use should have good visibility for ease of monitoring by the teacher.
- Adequate storage space for all spaces.
- High-performing acoustics within all spaces.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency, low noise mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans, where applicable.
- Mobile technology use should be supported through a multitude of electrical outlets and a combination of data port locations, with wireless internet access available and able to expand capacity in the future.

## **PATIAL FEATURES**

- Finishes should accommodate the activities listed above.
- Ceiling should be highly acoustic to reduce reverberation time and include acoustical wall treatments.
- Roller shades with blackout option should be provided at all window locations, including door sidelights and view windows in doors.
- Historical theater renovation considerations: A/V upgrades and integration, lighting equipment and positions, accessible seating and control desk work areas per code.
- Drama Classroom to be furnished with typical Classroom technology and A/V system. Additional equipment includes lighting/ curtain pipe grid, storage for costumes and props, mirror/makeup area. Flooring should be masonite. Walls and ceilings incorporating acoustical treatment, painted black. Lighting appropriate for performance use.
- At Theater, background noise levels between NC-20 to 25.
- A/V with video feed capabilities to the lobby and campus wide.





## **ADMINISTRATION**

#### ACTIVITIES

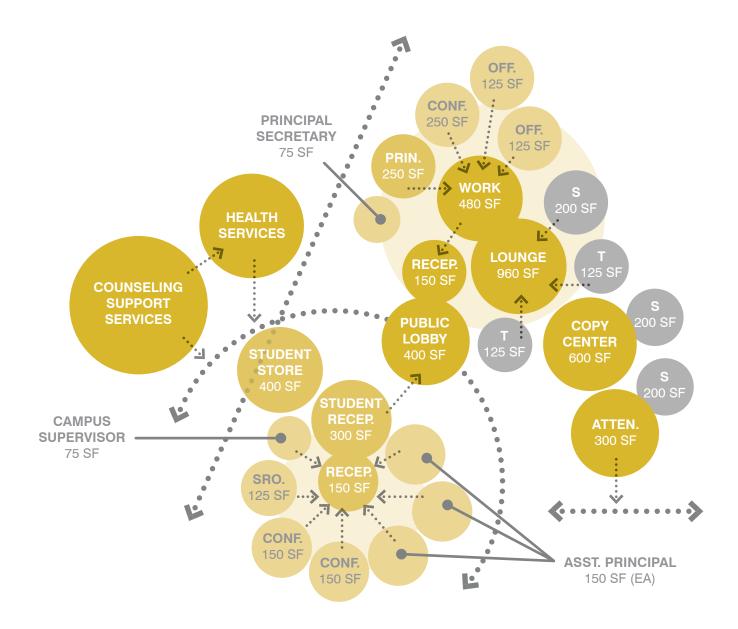
- Check-in, Front Entry
- Administrative duties
- Discipline meetings
- Counseling
- Health support
- Staff collaboration and professional development
- Attendance, enrollment, supply/records storage

### **DESIGN OBJECTIVES & CHARACTERISTICS**

- Define a clear, single-point of entry to campus.
- Create an inviting lobby where students, parents and community members are exposed to a welcoming entry with student work on display and comfortable seating.
- The Staff Work/Lounge should be a fluid space that allows for social interaction and professional collaborative space.
- Administration spaces should be accessible to visitors, yet allow for private and confidential conversations. Clearly delineate public versus private spaces that allow for privacy at discipline and counseling areas.
- A Flexible office that accommodates two hoteling staff members allows for flexibility.
- Spaces should be acoustically separated.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems and the ability to operate windows.
- Large conference room should accommodate 12-15 people. Small conference room should accommodate 6-8 people.
- Provide a private lactation room; include comfortable soft furnishings and dimmable lights.

### **SPATIAL FEATURES**

- Finishes should accommodate the activities listed above. Flooring should be carpet in office/conference areas and resilient in workrooms and the health office.
- Ceilings should be primarily acoustic with limited areas of dropped hard lid.
- Digital display area for announcements and student work should be located in the lobby.
- Include device charging stations in the waiting areas.
- Casework at standing and seated working heights should be provided at the reception area and workrooms.
- The Health Office should include casework with a work area, lockable storage cabinets for student medicine and a refrigerator with ice maker. Ceiling-hung cubicle curtains should be provided to separate the cot area.



# **STUDENT UNION**

## ACTIVITIES

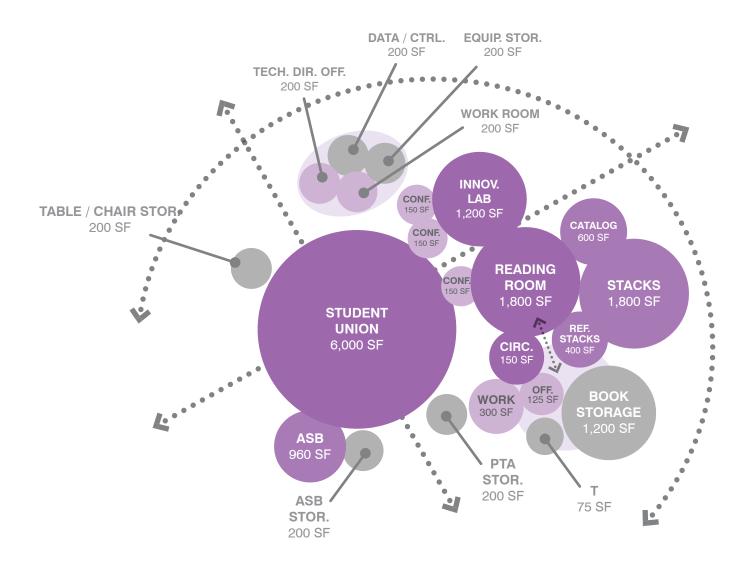
- Main, central gathering space for students
- Social and academic activities
- · Facilitate staff, student and community interactions
- Display student work and promote current school events

## **DESIGN OBJECTIVES & CHARACTERISTICS**

- · Central location to provide easy access for students, staff and community.
- Highly flexible space for collaboration and multi-modal learning.
- Study Rooms are unnecessary, but provide ways to divide up space through furniture solutions.
- Presentation/ meeting area with enough space for a typical class with Typical Classroom technology and writable surface.
- Ubiquitous access to mobile technologies.
- Provide spaces for display of student work and revolving thematic displays.
- Dedicated space for community and parents to work and prep for activities. Provide a PTA Storage Room.
- Provide easy access to outdoor commons, including shade.
- Collaboration spaces intended for student use should have good visibility for ease of monitoring by the teacher.
- High-performing acoustics within spaces to support concurrent activities.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems, the ability to operate windows and improve air circulation and comfort through ceiling fans.
- Mobile technology use should be supported through a multitude of electrical outlets and a combination of data port locations, with wireless internet access/ WiFi available and able to expand capacity in the future.
- ASB Storage room with a sink for storing sound system, props, and paint for poster making activities. Built in sound system at exterior stage (or portable as required).

## SPATIAL FEATURES

- · Varied, comfortable furnishings appropriate for study, focused tasks, as well as social activities.
- Finishes should accommodate the activities listed above. Flooring should be primarily resilient. Carpet in 'quieter' study areas.
- Tackable and magnetic wall surface and display area for student achievements and event announcements.
- Multiple digital display panels for announcements and student work.
- Mobile whiteboards as a furniture solution may be provided to support small group instruction.
- Sound absorbing acoustic properties to be considered in selecting ceiling and wall finishes.
- Casework at standing and seated working heights should be provided.
- Locations for electronic device charging carts should be considered, including adequate power to support the use of technology.
- Food service area to conform to Health Department standards. Equipment to be verified by the District.





# **GYMNASIUM**

## ACTIVITIES

- Physical Education (PE) and Athletic activities
- Assemblies and large group performances/ presentations/ instructional activities
- Community use

## **DESIGN OBJECTIVES & CHARACTERISTICS**

- Within the campus organization, locate facility near parking with easy access to hardcourts and playfields.
- The size of the gym should accommodate the programmed courts, bleacher seating and appropriate court run-off/ clearance areas.
- The spaces should be inviting and engaging utilize color and appropriate lighting strategies. Inspire students and instill a sense of school pride through color, graphics, signage, and display of student awards.
- Lighting quality should be naturally daylit supplemented with high-efficiency light fixtures that supply a balance of indirect and direct light to reduce shadows and glare and provide an even level of illumination. Consider the use of solar tubular skylights with adjustable baffles to bring in daylight in large volume spaces.
- Lighting should be occupant-controlled around areas of projection, through shading devices and separate switches or dimming.
- Thermal comfort should be supported through high-efficiency mechanical ventilation systems. Evaluate in appropriate locations the ability to operate windows and improve air circulation and comfort through ceiling fans.
- High-performing acoustics within spaces to support various large group sports activities and functions.
- Ample storage for athletic equipment.

## SPATIAL FEATURES

- Finishes should be durable and accommodate the activities listed above. Gym and Wrestling Room flooring should be sprung hardwood flooring. Epoxy or polished concrete flooring at Locker Rooms for ease of cleaning. Porcelain tile or polished concrete flooring at the Lobby and Concessions. Rubber sports flooring at Weight Room.
- Ceilings should be acoustically absorptive and durable; consider acoustical metal deck and acoustic wall treatment to control reverberant sound. Acoustical ceiling tile or acoustical metal deck can be considered Weight and Wrestling Rooms.
- Include device charging stations at various locations.
- Integrated technology (audio systems and wireless access) should be uniformly provided. Include a projection system and recessed projection screen.
- Provide interior drinking fountains in lobby area.
- Provide wrestling mat storage room.

