


### 3.1.2 Educational Program

Teaching Philosophy, Methods and Goals



*The mission of Carver Public Schools is to provide a challenging, comprehensive education in a safe environment where all students are respected as individuals.*

## CARVER ELEMENTARY SCHOOL

### EDUCATION PROGRAM

*a 21st Century Learning Environment*

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### EXECUTIVE SUMMARY

**Vision Statement:** All Carver Public School students will respect the rights and diversity of others, think creatively, learn continually, and contribute to their community. The students will be challenged by a purposeful and relevant curriculum, one that is essential to the human experience and prepares them to be citizens of the 21<sup>st</sup> Century. Staff, parents, community members and businesses will join a partnership committed to high standards and dedicated to continuous improvement.

**Continuous Improvement:** Carver Elementary School strives to provide a rigorous education program for elementary students, preschool through grade 5. Striving for *continuous improvement*, Carver Elementary celebrates its Reading Intervention Model, which has been in place for over ten years and is recognized for its innovative collaboration with the Hanson Initiative for Language and Literacy (HILL). Carver Elementary embraces inclusion where teachers continuously collaborate to provide best practice instruction including differentiated instruction within the regular education classroom.

**Response to Intervention:** Carver Elementary School's Response to Intervention Model is a general education initiative. Through our tiered model of instruction we respond to student reading data by adjusting intervention services in duration, frequency, and intensity.

The model consists of three tiers of instruction. During tier one all students receive at least 60 minutes of core reading instruction in the general education setting by the homeroom teacher.

In addition, during tier two, all students receive 45 minutes per day of targeted reading intervention services. The tier two services are provided by one of the following: a grade level classroom teacher, a reading specialist, a Title One paraprofessional, or a special education teacher. In grades K – 5 there are twenty-two (22) targeted intervention groups running simultaneously (ELA & Math). This schedule continues throughout the day with 1 scheduled block for each grade level. Tier two services consist of skill-specific small groups ranging in size from 3 students (at-risk for failure) to 30 students (performing above benchmark). Intervention sessions take place in general classrooms where students rotate through differentiated learning stations and in small group rooms where stimuli is controlled and direct, explicit, multi-sensory instruction can be intensified. Student progress toward grade level reading benchmarks is carefully monitored. If a

student does not make typical or adequate progress, the student may also receive tier three services. Tier three services may occur before, during, or after the student's regular school day in sessions lasting 10 - 45 minutes. Tier three services are in addition to tier one and tier two services. Such services are provided by a reading specialist, Title One paraprofessional, or special education teacher.

**The Professional Learning Community Model:** The Professional Learning Community (PLC) model is central to the manner in which Carver Elementary educators collaborate to provide the highest quality instruction to every student. The school is organized into six grade level PLCs: K-5, the preschool, the Allied Arts, and an Administrative Leadership Team. Grade level PLC's are comprised of regular education and special education teachers. During PLC meetings, teams conduct the cycle of data review and analysis as a means to plan for instruction and to improve learning outcomes for all students in each grade level. Carver Elementary Faculty and Staff work with the Administrators to focus their work on the standards described in the *Massachusetts Department of Secondary and Elementary Education Model Rubric, January 2012*.

- Promote the learning and growth of all students and the success of all staff by cultivating a shared vision that makes effective teaching and learning the central focus of schooling
- Promote the learning and growth of all students and the success of all staff by ensuring a safe, efficient, and effective learning environment, using resources to implement appropriate curriculum, staffing, and scheduling
- Promote the learning and growth of all students and the success of all staff through effective partnerships with families, community organizations, and other stakeholders that support the mission of the school and district
- Promote success for all students by nurturing and sustaining a school culture of reflective practice, high expectations, and continuous learning for staff

**The Carver Elementary faculty, staff, and administrators intend to connect the Education Program to every facet of the building design. The new and or renovation/new Carver Elementary School design should provide the following spaces:**

#### ACADEMIC WING

- 2 stories
- 36 classrooms for grades K-5 (6 classrooms per grade level)
- Contiguous classrooms for teachers at the same grade level (pre-k ;k, grade 1; grade 2 on the first floor and grades 3,4,and 5 on the second floor)



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### Teaching Philosophy, Methods and Goals, continued

- 3 pre-K integrated special needs classrooms to serve a total 45-50 students on the first floor
- 6 Small group learning literacy spaces,
- 6 Small group learning mathematics spaces
- A collaboration space for the Literacy/Math Teams with 6 office spaces, a meeting area, plus storage for all literacy/math materials
- Space for Vision - impaired students and teacher
- Space for English Immersion student and teacher
- Special Education Alternative Learning Programs (Autism Spectrum Disorder):
  - 1 grade K-2 classroom with a maximum of 12 students, first floor
  - 1 grade 3-5 classroom with a maximum of 12 students, second floor
- Social Emotional Disabilities Program
  - 1 grade K-5 classroom with a maximum of 12 students, first floor
- Sensory Room
- Physical and Occupational Therapy Room (if located on the second floor, adjacent to elevator) with 3 offices adjacent to or accessed from the Therapy Room)).
- Collaboration space to accommodate 6 Special education related teachers with 6 offices and storage space for related materials
- a “gathering space” for each floor to accommodate one grade level of students- not a separate room but a space carved out between stairways or at the end of a hallway with tiered seating

#### Learning Commons: Library Media Center

- Learning Commons: Library Media Center with Technology Lab area should be adjacent to the center of the school, Administrative, Health, and Student Support Services Centers.

#### CENTRAL SERVICES

The Formal Entrance with Administrative and Health and Student Support Services Connecting the Academic Wing to the Common Spaces, 1st floor

#### Administrative Center

- Formal entrance with double sets of doors for security office
- Administrative Center with offices for the Principal and 2 Associate Principals (Principal’s office should accommodate a conference table for private meetings and Associate Principal’s office should have a small conference table to meet with and student and parents)
- Reception area for parents and students to wait comfortably for school meetings

- Secretary station for reception area
- Office for the Administrative Assistant to the Principal
- Secure storage for student and assessment records
- 1 large conference room
- Teacher Mail and copy room
- 2 adult bathrooms with entry from Administrative Center and hallway

#### Health Center

- Separate entrance in hallway for parents (separate from main office)
- Reception area with seating for students and parents
- 1 nursing station with exam area
- Adjoining cot/rest space for up to 4 students
- 2 toilets, 1 with a shower

#### Student Support Services Center

- Waiting and Administrative Assistant's desk
- Offices for 2 Student Adjustment Counselors, 1 school psychologist and 1 behavior therapist- each office should have a small conference table to accommodate 3 students or a student and his/her parents
- Conference room for Special Education Team Meetings
- Guidance Storage Room
- School Resource Officer office

COMMON SPACES are adjacent to the Administrative, Health, and Student Support Services Centers and adjacent to the Formal Entrance to the school.

- Multipurpose Room which is a large group gathering space as well as an exhibition and performing space. It can also be used as indoor recreation space in inclement weather. It opens directly to the cafeteria but is able to be closed off from the cafeteria
- Music and Art rooms (2 each) are adjacent to the Multipurpose Room
- Cafeteria is connected to the Multipurpose Room on one side and has the kitchen with service access
- Gymnasium is near to the cafeteria and has an entrance to outdoor play spaces

MECHANICAL and CUSTODIAL STORAGE will be located in the best place to serve the needs of the building with access to loading dock.



## 3.1.2 Educational Program

### Teaching Philosophy, Methods and Goals, continued

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#### OTHER FACTORS

The Carver Elementary Faculty and Staff and Administration support the findings of the American Federation of Teachers (AFT) publication, *Building Minds*, 2006:

The 2006 AFT publication points to key elements that are indicators of a commitment to high standards in schools. These include building and classroom sizes conducive to learning, adequate ventilation, heating and air-conditioning systems, extensive use of natural daylight, acoustic materials that reduce noise levels that interfere with learning, safety and security concerns affectively addressed, integrated technology, infrastructure that supports all students including special needs students and adequate staffing to keep schools clean and well-maintained. (*Building Minds*, 2006)





# CENTRAL SERVICES

## Administrative Center

### Administrative Offices

#### I. Space Needs

Administrative offices are located near the main entrance of the school building. In order to support the needs of the administrative office, the following are needed:

- Formal entrance with double sets of doors for security office
- Administrative Center with offices for the Principal and 2 Associate Principals (Principal's office should accommodate a conference table for private meetings and Associate Principal's office should have a small conference table to meet with and student and parents)
- Reception area for parents and students to wait comfortably for school meetings
- Secretary station for reception area
- Office for the Administrative Assistant to the Principal
- Secure storage for student and assessment records
- 1 large conference room
- Teacher Mail and copy room
- 2 adult bathrooms with entry from Administrative Center and hallway

#### II. Other Needs

- Defined office areas with sound-proofing, walls, and doors
- Natural light
- Access to restrooms
- Safety considerations for lock-downs and evacuations
- Wireless access for technology and communication tools such as radios
- Accessibility for students and teachers with disabilities

### Security Desk

The security desk area will be at the main entrance of the school building. Carver Elementary strives to be a welcoming and inviting community school for students, staff

and families. The PTO, parent and community volunteer numbers at Carver Elementary have increased in the past three years requiring us to implement regular volunteer trainings throughout the entire school year. Carver Elementary requires a space to accommodate the high morning influx of arrivals and visitors as well as the active dismissal and will include:

**I. Space Needs**

- Work station for security desk staff member
- Community arrival space

**II. Other Needs**

- Wireless access for electronic devices supporting one device per student, staff member, and guests
- Infrastructure support for continuous availability of bandwidth to support security desk needs
- Capability of "locking-down" in the event of a building lock-down
- Video monitoring system to include cameras at all exits/entrances
- Cameras installed internally within hallways, gymnasium, cafeteria and group gathering areas
- Cameras installed externally to cover the grounds including doors, sidewalks, driveways, playgrounds and fields
- Card access on entry doors
- Integrated intrusion alarm system



### Health Center

#### *Research Based/Best Practice Curriculum Statement*

*For several decades, recognition of the link between health and education has steadily increased, with greater understanding that a child must be healthy to learn and a child must learn to be healthy. There is also greater recognition that school health service programs are in a unique position to improve child health status, resilience and well-being, provide care essential to the student's school attendance, and identify and refer students with certain health risks and conditions. These activities ultimately support the student's ability to learn and contribute to both the school and community health and well-being. As the health care delivery system undergoes a dramatic restructuring and hospital stays are reduced, management of many medical conditions, health related problems, disease prevention and health promotion have shifted to the school setting, where children spend their "working days."*

(<http://www.mass.gov/eohhs/gov/departments/dph/programs/community-health/primarycare-healthaccess/school-health/essential-school-health/developing-school-health-services-in-massachusetts.html>)

(references: Massachusetts School Health Manual 2007:  
<http://www.mass.gov/eohhs/gov/departments/dph/programs/community-health/primarycare-healthaccess/school-health/publications/comprehensive-school-health-manual.html>)

#### **Best practices in school health programs are centered on the following Integrated Approach**

- Health Education
- Physical Education
- Health Services Nutrition Services
- Health Promotion for Staff
- Counseling and Psychological Services (School Adjustment Counselors and School Psychologist)
- Healthy School
- Parent/Community Involvement – An integrated school, parent, and a community approach for enhancing students' health and well-being including the implementation of the *Responsive Classroom* and *Positive Behavior Intervention and Supports* (PBIS)

The school nurse is the cornerstone of the school health service program with her/his role interacting with all aspects of the integrated approach described above. The role of

the two Carver Elementary School nurses in a regular school day, includes providing services for over 750 children that may include:

- assessing and treating a range of illnesses;
- managing chronic diseases;
- administering medication;
- providing care assisted with medical technology (e.g., catheterizations, tracheotomy care);
- linking children with insurance and/or primary care providers;
- providing first aid and emergency care for a range of injuries and health conditions (e.g., an individual experiencing a life-threatening allergic event);
- identifying students at risk for a variety of issues such as bullying, and depression;
- completing health screenings (e.g., body mass index (BMI) measurements)
- providing support and referral resources for children and their families experiencing acute crisis or emotional upheaval.

School nurses collaborate with school administrators, teachers, parents, and local public health and safety officials to help plan and implement a wide range of health promotion programs. They assist in the development of strategies for modeling healthy habits and behaviors within the school environment. More recently, these responsibilities are public health functions such as asthma monitoring and participation in community influenza pandemic planning.

### **I. Space Needs**

The Health office needs to be located near the main entrance of the elementary school to allow for ease of access for both students and families. The health office supports the entire school and as such requires the following:

- Reception area with seating for students and parents
- 1 nursing station with exam area
- Adjoining cot/rest space for up to 4 students
- 2 toilets, 1 with a shower
- Locked cabinet and locked refrigeration for medication.
- Nonabsorbent, nonslip floor in all clinic areas.
- Record storage area



### II. Specialized Equipment

- Wireless access for all electronic devices
- Infrastructure support for continuous availability of bandwidth to support access to internet and intranet and radios
- SMART technology
- Seating for children that is developmentally appropriate

### III. Other Needs

- Defined space with sound-proofing, walls, and doors
- Natural light
- Ample space to accommodate both students in cot area as well as a waiting/seating area
- Safety considerations for lock-downs and evacuations
- Accessibility for students and teachers with disabilities
- Consideration for noise reduction and sound enhancement
- Access for parents to enter the nurses ' office area

# Student Support Services Center

## *Research Based/Best Practice Curriculum Statement*

School counselors are vital members of the education team. They help all students in the areas of academic achievement, personal/social development and career development, ensuring students become the productive, well-adjusted adults of tomorrow. School counselors are an important part of the educational leadership team and provide valuable assistance to students and families. School counselors spend most of their time in direct service to and contact with students. School Counselors' duties are focused on the overall delivery of the total program through the delivery of the school's support program. (American Association of School Counselor Association, [www.schoolcounselor.org](http://www.schoolcounselor.org) )

- A. Carver Elementary counselors lead the school community in implementing the Positive Behavior and intervention Supports (PBIS) Framework which advances educational effectiveness by connecting school mental health and school-wide positive behavior support programs and services in order to create a safe school through positive discipline ([www.pbis.org](http://www.pbis.org)).
- B. Carver Elementary counselors support the implementation of *Second Step* and the Massachusetts Aggression Reduction Center's (MARC) bullying prevention and intervention curriculum ([www.marccenter.webs.com](http://www.marccenter.webs.com)).
- C. Carver Elementary School counselors support *The Responsive Classroom* methods implemented by teachers in order to create a community of caring and respectful learners by getting to know each other, practicing academic and social skills, and looking forward to learning together each day. ([www.responsiveclassroom.org](http://www.responsiveclassroom.org))

### **I. Space Needs**

The Student Support Services Suite needs to be in the Central Services area of the building so that faculty, staff, students, and parents have access to these services without going into the Academic Wing or having to access a second floor.

- Waiting and Administrative Assistant's desk
- Offices for 2 Student Adjustment Counselors, 1 school psychologist and behavior therapist- each office should have a small conference table to accommodate 3 students or a student and his/her parents



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Teaching Philosophy, Methods and Goals, continued

- Conference room for Special Education Team Meetings
- Guidance Storage Room
- School Resource Officer office

### II. Specialized Equipment

- Technology work stations
- Photocopier in a private space
- Secure record storage

### III. Other Needs

- Natural lighting
- Sound proof walls and doors
- Wireless technology access

## Learning Commons: Library/Media Center

### *Research Based/Best Practice Curriculum Statement*

*The definition of information literacy continually becomes more complex as resources and technologies continue to change. Information literacy is transformed from the simple definition of using reference resources to find information to using multiple literacies, including digital, visual, textual, and ever changing technologies as teaching and learning tools. Students today are “digital natives” and access to dynamic information literacy tools is crucial to their learning.*

*The ongoing rapid expansion of information demands that all individuals acquire the thinking skills that will enable them to learn on their own. The amount of information available to our learners necessitates that each individual acquire the skills to select, evaluate, and use information appropriately and effectively.*

*Learning has a social context. Learning is enhanced by opportunities to share and learn with others. Students need to develop skills in sharing knowledge and learning with others, both in face-to-face situations and through technology.*

*School library/media centers are essential to the development of learning skills. School library/media centers need to provide equitable physical and intellectual access to the resources and tools required for learning in an accessible, stimulating, and safe environment to acquire and practice essential learning skills needed in the 21st century beyond.*

[\(<http://www.ala.org/aasl/standards-guidelines/learning-standards>\)](http://www.ala.org/aasl/standards-guidelines/learning-standards)

### **I. Space Needs**

In order to support teaching and learning in the Library/Media Center, all learning spaces need to support student centered learning. It needs to be placed in the building so that grade levels are easily accessible by classrooms and be big enough for entire grade levels and the general public “gathering spaces.”

- Integrated office space, workroom and storage for the Library/Media Center Director with sight views to the whole library
- Space for computers to accommodate testing





- Flexible spaces are needed in order to support:
  - Student collaboration
  - Student interaction and investigation
  - Student choice
  - School wide collaboration
  - School wide information dissemination
  - Student projects: Students need to build, present, demonstrate, engage, evaluate and Communicate information
  - Movable and varied furniture
  - Flexible space to allow different configurations and groupings

### **II. Specialized Equipment**

- Wireless access for all electronic devices
- Infrastructure support for continuous availability of bandwidth to support individual and group access to inter and intranet
- Smart technology, such as but not limited to, interactive white boards and projectors, etc.
- Technology equipment and technology support for information literacy needs.
- Able to use media devices in certain areas that will not interfere with learning in other areas.
- Ability to use technology and non-technical devices simultaneously

### **III. Other Needs**

- Sound-proofing, walls, and doors.
- Natural light
- Access to restrooms
- Safety considerations for lock-downs and evacuations
- Accessibility for students and teachers with disabilities

# Cafeteria

## *Best Practice Approach*

There are very few elementary schools that serve over 750 students lunch. The National Food Service Management Institute did a study on K-12 lunch periods. The study found that elementary students needed a 30 minute lunch period.

<http://www.nfsmi.org/documentlibraryfiles/PDF/20080313014916.pdf>

In the new building there is a need to serve over 750 students in one cafeteria therefore the faculty and staff recommend the following:

- 30 minute lunch periods
- 1 cafeteria that can serve 250 students in each lunch period
- 3 lunch periods
- 2 lunch serving lines
- 4 cashier stations (2 per lunch line)

### **I. Space Needs**

The K-5 cafeteria needs to be placed in the building so that 2 grade levels can travel to and from in a reasonable amount of time and be large enough for 2 entire grade levels (250 students) and accommodate general public as a “gathering space” when not in use as a cafeteria.

- Shares a “wall” that opens up to Multipurpose Room but can also be isolated from the room with sound proof doors
- Sound-proofing, walls, and doors.
- Natural light
- Access to restrooms
- Safety considerations for lock-downs and evacuations
- Wired for technology and communication
- Accessibility for students and teachers with disabilities
- Set up to meet all health codes in regards to food safety and assembly

### **II. Specialized Equipment**

Specialized kitchen equipment for preparing meals for 250 students per lunch period which meets all food service standards

- Food preparation surfaces
- Accessible walk-in freezers and refrigerators



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#### Teaching Philosophy, Methods and Goals, continued

- Cook tops, cooking and warming ovens
- Accessible walk-in storage pantries
- Cold and hot serving equipment
- Efficient dishwashing and sterilizing system
- Fire safety equipment
- Cashier stations compatible with electronic payment systems
- Separate food preparation station to meet needs of students with allergies

# Multipurpose Room

## *Best Practice Approach*

The students of Carver use two schools, the Elementary School and the Middle High School. Currently there is no space in either elementary building to have a performance event for more than one grade level. For all elementary band and chorus performances the Middle High School auditorium is used. This presents many challenges for both schools. The elementary students never get to rehearse in the actual space where they perform and the middle high school has to schedule all events in a very tight framework.

In a new elementary building a Multipurpose Room with flexible furnishings will be used for elementary performances of band, chorus, grade level plays and presentations, parent meetings, science fair, arts fair, indoor recreation, book fairs, kindergarten screening, afterschool programs and evening events sponsored by the PTO and other school groups.

In a large school with over 750 students this space is essential. The Multipurpose room will be adjacent to the Cafeteria with a door system that allows the two spaces to be combined, if needed.

### **I. Space Needs**

- A small stage area to seat 50 children in the band or chorus
- The stage will have a ramp on one side and steps that also serve as risers for the chorus across the front
- Moveable and stackable chairs for the large open space
- Storage for musical instruments behind the stage and adjacent to the music band room
- 2 storage closets for chairs and tables on either side of the stage

### **II. Specialized Equipment**

- A simple lighting system to highlight the small stage area
- A sound system with built in speakers and moveable microphones
- Folding tables for use in exhibitions and fairs



## 3.1.2 Educational Program

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Teaching Philosophy, Methods and Goals, continued

### III. Other

- Entrance/Exit Doors to accommodate large groups

# Gymnasium

## *Research Based/Best Practice Curriculum Statement*

Carver Elementary provides Physical Education classes for every student at least once per week. In order to server 36 K-5 classes and 3 Pre-K classes there needs to be two teaching stations which accommodate at least 35 students at each teaching station.

### **I. Space Needs**

Physical Education typically incorporates multiple classrooms sharing a common space. An interdisciplinary approach is common practice and requires gymnasium space to achieve. In cooperation with physical activity, the ability to instruct in a multipurpose space with both fitness equipment and instructional technology is essential to teacher success. A final component would be a project adventure space where cooperative games and challenges can be a focus.

- Full size basketball court
- Pull out bleachers to seat 2 grade levels of students 270-300 students or parents
- Access to out-of -doors playgrounds and fields

### **II. Specialized Equipment**

- Team and individual games equipment
- Fitness and Multipurpose
  - Cardiovascular Training
  - Dance Revolution
  - Pedometers
  - Fitness and Balance Equipment
  - Stretching
  - Fitness bands
  - Exercise Balls
  - Project Adventure Equipment
  - Element course
  - Team building
  - Problem Solving



### Outdoor Learning and Exterior Spaces

#### I. Playgrounds and Fields

*In order to support the needs of the students, staff, families and community members, outdoor fields and playgrounds need to support child development. A Comprehensive School Physical Activity Program (CSPAP) is a multi-component approach by which school districts and schools use all opportunities for students to be physically active, meet the national recommendations of physical activity each day, and develop the knowledge, skills, and confidence to be physically active for a lifetime. A CSPAP reflects strong coordination and synergy across all of the components: quality physical education as the foundation, physical activity before, during, and after school, staff involvement, and family and community engagement.*

(<http://www.cdc.gov/healthyyouth/physicalactivity/cspap.htm>)

- Preschool playground
- Grades K-2 playground
- Grades 3-5 playground
- Hard surface with basketball hoops for all types of ball play and basketball used for both physical education and recess
- At least 2 Ball fields for P.E including a soccer field
- Nature trail and obstacle course for physical education classes

#### B. Transportation

Carver Elementary School families have the option of dropping off and picking up their children. Currently, 750+ K- 5 students arrive and dismiss on a daily basis. The number of students being dropped off in the morning varies between 40-60 students and the number being picked up daily ranges from 60-80. Early release day pick-ups increase and range from 100-125. There are 18 school buses running each day at full capacity. Carver Elementary requires a safe main driveway entrance with access to the school, a secondary access for event purposes as well as emergency access. In addition, the following is required:

- Safe, adequate parking for approximately 200 staff and visitors separate from student drop off spaces
- Separate clearly defined preschool student drop off and pick-up
- Clearly defined student drop off and pick up for grades K-5

- Bus loop for drop off and pick up without interference to parent drop-off/pick-up
- Safe sidewalk/pathways for pedestrians that come from various directions feeding to the school





## ACADEMIC SPACES

### Early Learning (Preschool and Kindergarten)

#### *Research Based/Best Practice Curriculum Statement*

Children need many opportunities for work and play that cultivate their individual styles, recognize their cultures, and accommodate their individual needs. All children are capable of learning in a safe, healthy, and stimulating classroom environment. They benefit from rich, multi-sensory environments that support different learning styles and kinds of intelligence.

**Preschool and Kindergarten** (reference: Early Childhood Rating Scale, NAEYC Accreditation Criteria, and Kindergarten Learning Experiences). Best practices in Curriculum and Instruction in the area of early education are centered on social and emotional development and the development of foundational academic skills.

#### **I. Space Needs**

In order to support teaching and learning in Preschool and Kindergarten, all learning spaces need to support early childhood development and learning. The Preschool provides half day classes for 3 and 4 year old students identified as having special education needs. Students in the integrated program attend 4 days a week for 2.5 hours per day alongside typically developing peers who have been screened as role models. Students attending the full day substantially separate classroom participate with typically developing peers in the morning and then get more individualize instruction in the afternoon. Since students are often working on mobility and toilet training, the room must include areas for life skills. This program includes students with autism and multiple disabilities. It must be handicapped accessible and allow for wheel chairs and walkers. Floors should be suitable for students that are learning to be mobile. All Preschool and Kindergarten classrooms need to be placed in the building so that grade levels are supported by contiguous classrooms and have “gathering spaces” for an entire grade level.

The Kindergarten program provides full day classes for 5 and 6 year old general education and special education students.

Spaces are needed in order to support the following program activities (minimum 35 square feet of usable space per child in each of the primary indoor activity areas):

- Whole group instruction
- Student interaction and collaboration
- Independent student work
- Adequate flexible space to support 3-5 interest centers (housekeeping, art, music, blocks, sand table, water, table, etc.) and exploration supplied with materials organized in a manner to support children’s play and learning
- Gross motor development
- Rest time/napping (rest area must be separated by a solid barrier or allow for a minimum of 3 feet between children)
- Personal Hygiene (toileting including diaper changing facilities, and hand washing)
- Gathering Spaces” may be incorporated into the hallways to promote academic and social interaction
- Designated storage space for all students as well as teachers
- An administrative area for planning and preparing materials that is separated from the children’s areas

## **II. Specialized Equipment**

- Wireless access for all electronic devices
- Infrastructure support for continuous availability of band-width to support individual and group access to inter and intranet
- Smart technology, such as but not limited to, interactive white boards and projectors, etc.
- Padded flooring for students with disabilities or those who are learning to be mobile

## **III. Other**

- Defined classrooms with sound-proofing, walls, and doors
- Natural light in all classrooms
- Indoor environment is designed so staff can supervise children by sight and sound at all times
- There must be clear pathways available for students to move from one location in the classroom to another
- Safety considerations for lock-downs and evacuations



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- Accessibility for students and teachers with disabilities
- Means to control noise level in rooms occupied by children so normal conversation can be heard without raising one's voice
- Direct access for drop-off/ pick-up and recess

#### Outdoor Space

- Outdoor play space must have resilient surfacing that extends six feet beyond the limits of stationary equipment
- There must be a variety of surface types to allow for different types of play
- Must protect students from excessive wind and sunlight
- Must provide at least 75 square feet of outside play space for each child playing at any one time. The total amount of required play space is based on a maximum of one-third of the total center enrollment being outside at one time.
- Play areas must have areas for semiprivate play where a child can play alone or with a friend
- Play areas must support students with disabilities, provide for gross motor experiences, dramatic play, and exploration of the natural environment

# Grades 1 - 5 Learning Spaces - Math

## *Research Based/Best Practice Curriculum Statement*

**Elementary Math** (reference: Massachusetts Curriculum Framework for Mathematics, March 2011, <http://www.nctm.org/publications/blog/blog.aspx?id=41982&blogid=599531>)

Best practices in Curriculum and Instruction in the academics related to Math are centered on the Guiding Principles for Mathematics Programs in Massachusetts:

### Guiding Principle 1: Learning

*Mathematical ideas should be explored in ways that stimulate curiosity, create enjoyment of mathematics, and develop depth of understanding.*

### Guiding Principle 2: Teaching

*An effective mathematics program is based on a carefully designed set of content standards that are clear and specific, focused, and articulated over time as a coherent sequence.*

### Guiding Principle 3: Technology

*Technology is an essential tool that should be used strategically in mathematics education.*

### Guiding Principle 4: Equity

*All students should have a high quality mathematics program that prepares them for college and a career.*

### Guiding Principle 5: Literacy Across the Content Areas

*An effective mathematics program builds upon and develops students' literacy skills and knowledge.*

### Guiding Principle 6: Assessment

*Assessment of student learning in mathematics should take many forms to inform instruction and learning.*

Students are asked



- Makes sense of problems and persevere in solving them
- Reason abstractly and quantitatively
- Construct viable arguments and critique the reasoning of others
- Model with mathematics
- Use appropriate tools strategically
- Attend to precision
- Look for and make use of structure
- Look for and express regularity in repeated reasoning

#### **I. Classroom Space Needs**

Flexible spaces are needed in order to support differentiated options for content delivery (i.e. whole class, individual, small group, partner work), student collaboration, student interaction and investigation, access to technology, problem – solving, Inquiry, Investigation). All spaces should be collaborative learning places where students can work in small groups or large groups. All classrooms in the same grade level should be contiguous to support grade level collaboration. All grade level “gathering spaces” may be incorporated into the hallways to promote academic and social interaction. Grade level storage should be available that supports sharing of academic resources.

- Large-open surfaces, unencumbered with fixtures or equipment
- A technology-rich environment to access mathematics materials
- Storage for manipulatives accessible to students and teachers
- Whole class instructional space (Rug area)
- Individual work space (tables and/or desks)
- Work space for small groups of students
- Library space for math related literature
- Wireless access for all electronic devices
- Smart technology, such as but not limited to, interactive white boards and projectors, etc.
- One-to-one technology accessibility for math materials
- Storage space for all hands – on manipulative materials
- Easily moveable furniture that can be used for individual and group study
- Natural light

#### **II. Small Group Rooms**

6 Small group / Flexible spaces are needed in order to support:

- Differentiated options for content delivery (i.e. individual, small group, partner work)
- Student collaboration

- Student interaction and investigation
- Access to technology
- Problem – solving
- Inquiry
- Investigation

This approach requires a space that allows students to work together to explore mathematics:

- Large-open surfaces, unencumbered with fixtures or equipment
- A technology-rich environment to access mathematics materials
- Storage for manipulatives accessible to students and teachers
- Shared storage space for teacher materials
- Wireless access for all electronic devices
- Infrastructure support for continuous availability of bandwidth to support individual and group access to inter and intranet
- Smart technology, such as but not limited to, interactive white boards and projectors, etc.
- Storage space for all hands – on manipulative materials
- Easily moveable furniture that can be used for individual and group study
- Natural Light
- Shared space for teacher resources

### **III. Collaboration/Office Space**

Title 1 (ELA and Math), Math Coach, Literacy Director

- Shared office space with 6 stations for ELA and math support staff and stored materials, conferencing, and planning areas.



## Grades 1 - 5 Learning Spaces - Literacy

### *Research Based/Best Practice Curriculum Statement*

#### **Elementary Literacy (English Language Arts: Reading & Writing)**

(reference: Massachusetts Curriculum Framework for Mathematics, March 2011)

Best practices in Curriculum and Instruction in ELA is centered on the following Guiding Principles from the Massachusetts 2011 Curriculum Frameworks. "They should guide the construction and evaluation of English language arts and literacy programs in schools and the broader community." (2011 MA English Language Arts Frameworks)

Guiding Principle 1: An effective English language arts and literacy curriculum develops thinking and language together through interactive learning.  
*Effective use of language both requires and extends thinking. As learners listen to a speech, view a documentary, discuss a poem, or write an essay, they engage in thinking. Students develop their ability to remember, understand, analyze, evaluate, and apply the ideas they encounter in English language arts and in all the other disciplines when they read increasingly complex texts and undertake increasingly challenging assignments that require them to write or speak in response to what they are learning.*

Guiding Principle 2: An effective English language arts and literacy curriculum draws on literature in order to develop students' understanding of their literary heritage.  
*American students need to become familiar with works that are part of a literary tradition going back thousands of years. Students should read literature reflecting the literary and civic heritage of the English-speaking world. They also should gain broad exposure to works from the many communities that make up contemporary America as well as from countries and cultures throughout the world. In order to foster a love of reading, English language arts teachers encourage independent reading within and outside of class.*

Guiding Principle 3: An effective English language arts and literacy curriculum draws on informational texts and multimedia in order to build academic vocabulary and strong content knowledge.

*In all of their classes, including history/social science, science and technology/engineering, arts, comprehensive health, foreign language, and vocational and technical subjects, students should encounter many examples of informational and media texts aligned to the grade or course curriculum. This kind of reading, listening, and viewing is the key to building a rich academic vocabulary and increasing knowledge about the proficient students apply the critical techniques learned in the study of exposition to the evaluation of multimedia, television, radio, film/video, and websites. School librarians play a key role in finding books and*

*other media to match students' interests, and in suggesting further resources in public libraries.*

Guiding Principle 4: An effective English language arts and literacy curriculum develops students' oral language and literacy through appropriately challenging learning.

*Reading to and conversing with preschool and primary grade children plays an especially critical role in developing children's vocabulary, their knowledge of the natural world, and their appreciation for the power of the imagination. In the primary grades, systematic phonics instruction and regular practice in applying decoding skills are essential elements of the school program. At the middle and high school levels, programs designed to prepare students for college and careers continue to emphasize the skills of building knowledge through substantive conversation, collaboration, and making oral presentations that are adapted to task, purpose, and audience.*

Guiding Principle 5: An effective English language arts and literacy curriculum emphasizes writing arguments, explanatory/informative texts, and narratives.

*At all levels, students' writing records their imagination, exploration, and responses to the texts they read. As students attempt to write clearly and coherently about increasingly complex ideas, their writing serves to propel intellectual growth. Through writing, students develop their ability to think, to communicate and defend ideas, and to create worlds unseen.*

*A student's writing and speaking voice is an expression of self. Students' voices tell us who they are, how they think, and what unique perspectives they bring to their learning. Students' voices develop when teachers provide opportunities for interaction, exploration, and communication. When students discuss ideas and read one another's writing, they learn to distinguish between formal and informal communication. They also learn about their classmates as unique individuals who can contribute their distinctive ideas, aspirations, and talents to the class, the school, the community, and the nation.*

Guiding Principle 6: An effective English language arts and literacy curriculum holds high expectations for all students.

*Recognizing that learners are different, teachers differentiate instruction as students learn to become increasingly independent in reading and writing complex texts. Effective teachers realize that instruction needs to be modified for students capable of more advanced work, as well as for struggling students.*

Guiding Principle 7: An effective English language arts curriculum provides explicit skill instruction in reading and writing.

*In some cases, explicit skill instruction is most effective when it precedes student need. Systematic phonics lessons, in particular decoding skills, should be taught to students before they use them in their subsequent reading. Systematic instruction is*





## 3.1.2 Educational Program

### Teaching Philosophy, Methods and Goals, continued

*especially important for those students who have not developed phonemic awareness—the ability to pay attention to the component sounds of language. Effective instruction can take place in small groups, individually, or on a whole class basis. In other cases, explicit skill instruction is most effective when it responds to specific problems students reveal in their work.*

Guiding Principle 8: An effective English language arts and literacy curriculum builds on the language, experiences, knowledge, and interests that students bring to school. *Teachers recognize the importance of being able to respond effectively to the challenges of linguistic and cultural differences in their classrooms. They recognize that sometimes students have learned ways of talking, thinking, and interacting that are effective at home and in their neighborhood, but which may not have the same meaning or usefulness in school. Teachers try to draw on these different ways of talking and thinking as potential bridges to speaking and writing in standard English.*

Guiding Principle 9: An effective English language arts and literacy curriculum nurtures students' sense of their common ground as present or future American citizens and prepares them to participate responsibly in our schools and in civic life. *Teachers instruct an increasingly diverse group of students in their classrooms each year. Students may come from any country or continent in the world. Taking advantage of this diversity, teachers guide discussions about the extraordinary variety of beliefs and traditions around the world. At the same time, they provide students with common ground through discussion of significant works in American cultural history to help prepare them to become self-governing citizens of the United States of America. An effective English language arts and literacy curriculum, while encouraging respect for differences in home backgrounds, can serve as a unifying force in schools and society.*

Guiding Principle 10: An effective English language arts and literacy curriculum reaches out to families and communities in order to sustain a literate society.

*Families and communities play a crucial role in developing young children's speaking, listening, language, reading, and writing skills. Effective literacy programs help parents and caregivers understand how vital their role is and provide adult education programs and other ways to support adult literacy. As children become adolescents, families and community members provide the support needed to keep middle and high school students engaged in school. Role models in the family and community encourage high school students in their exploration of colleges and careers. Effective programs emphasize that all of the components of literacy—close and critical reading, coherent writing, articulate speaking, and attentive listening—are essential in a democratic society.*

In ELA, students are expected to:

- demonstrate independence in their ability to comprehend and evaluate complex texts and construct effective arguments and convey intricate or multifaceted information
- demonstrate command of standard English and acquire and use a wide-range of vocabulary
- build strong content knowledge
- become proficient in new areas through research and study
- read purposefully and listen attentively
- refine and share knowledge through writing and speaking
- respond to the varying demands of audience, task, purpose and discipline
- comprehend as well as critique
- cite specific evidence when offering an oral or written interpretation of a text
- constructively evaluate others' use of evidence
- employ technology and digital media strategically and capably to enhance their reading, writing, speaking, listening and language use
- understand and appreciate that the twenty-first century classroom and workplace are settings in which people from often widely divergent cultures and who represent diverse experiences and perspectives must learn and work together

## **I. Space Needs**

In order to support teaching and learning in ELA, all learning spaces need to support a Response to Intervention Model.

### **A. Classroom Space**

- Flexible spaces are needed in order to support:
- Differentiated options for content delivery (i.e. whole class, individual, small group, partner work)
- Student collaboration
- Student interaction and investigation
- Access to technology
- The traditional classroom set-up consisting of desks in rows and one focal-point for instruction is replaced with:
  - student tables that allow for discussion, collaboration and small group work
  - multiple gathering places unencumbered with fixtures or equipment for whole group instruction
  - independent work stations and teacher/student conferencing or progress monitoring



- large, flexible classroom space to allow for differentiated grouping,
  - moving tables to allow for project-based learning
  - presentation space for students to address classmates
  - accessible technology for student based inquiry
  - in-class storage and/or library space for a wide range of text sources such as novels, picture books, magazines, newspapers, big books, reference texts
  - storage for manipulatives such as letter tiles for building words, and exploring morphology
  - nooks for independent & partner reading opportunities
- B. Small Group Intervention Spaces (6)
- Flexible spaces are needed in order to support:
  - Differentiated options for content delivery (i.e. individual, small group, partner work)
  - Student collaboration
  - Student interaction and investigation
  - Storage for multi-sensory instructional materials (sand, raised word cards, letter tiles, leveled text sources, various seating options, etc.)
  - Access to technology (iPads, Smart-Boards, personal CD players w/headphones, etc., group listening stations and future technological tools/equipment)

### II. Specialized Equipment for Class and Intervention Spaces

- Wireless access for all electronic devices
- Abundant electrical outlets for charging devices, powering equipment, etc.
- Infrastructure support for continuous availability of bandwidth to support individual and group access to inter and intranet
- Smart technology, such as but not limited to, interactive white boards and projectors, etc.
- Magnetic White board / Bulletin Board space for teachers to display sight words, vocabulary, comprehension strategy charts, etc.
- Easels to display literature/conduct shared reading lessons
- Easels to hang chart paper to conduct shared writing lessons, model editing, model blending strategies or spelling, etc.
- One-to-one technology accessibility for ebooks and reading practice materials
- Storage space for all hands – on manipulative materials
- Easily moveable furniture that can be used for individual and group study

- Natural light
- In order to support the learning needs for INTERVENTION INSTRUCTION in ELA for small groups, assessments & progress monitoring, the following are needed:
  - Wireless access for all electronic devices
  - Abundant electrical outlets for charging devices, powering equipment, etc.
  - Infrastructure support for continuous availability of bandwidth to support individual and group access to inter and intranet
  - Smart technology, such as but not limited to, interactive white boards and projectors, etc.
  - Magnetic White board / Bulletin Board space for teachers to display sight words, vocab lists, model blending strategies, comprehension charts, etc.
  - Easels for displaying text
  - Easels for chart-paper for shared writing, presentations, etc.
  - One-to-one technology accessibility for reading and writing materials
  - Storage space for all hands – on manipulative materials
  - Easily moveable furniture that can be used for individual and group study
  - Natural Light
  - Shared space for teacher resources

### **III . Social/Emotional/Cognitive Environment**

- Collaborative learning spaces where students can work in small groups or large groups.
- All classrooms in the same grade level should be contiguous to support grade level collaboration
- All grade level “gathering spaces” may be incorporated into the hallways to promote academic and social interaction
- Grade level storage that supports sharing of academic resources
- Grade level book rooms

### **IV. Other**

- All K-5 classrooms need to be placed in the building so that grade levels are supported by contiguous classrooms and have “gathering spaces” for an entire grade level as well as:



### 3.1.2 Educational Program

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#### Teaching Philosophy, Methods and Goals, continued

- Defined classrooms with sound-proofing, walls, and doors.
- Natural light in all classrooms
- Access to restrooms
- Safety considerations for lock-downs and evacuations
- Wired for technology and communication
- Accessibility for students and teachers with disabilities

# Grades 1 - 5 Learning Spaces - Science

## *Research Based/Best Practice Curriculum Statement*

### **Elementary Science** (reference: [www.nextgenscience.org](http://www.nextgenscience.org))

Best practices in Curriculum and Instruction in the academic area of Science is centered on analytical and strategic thinking.

Students are asked:

- to investigate and define the problem
- Develop and test a solution (s)
- Improve the designed solution
- Test the designed solution

This academic process is called *Universal Design* and is embedded in all teaching and learning in Science

#### **I. Space Needs**

A. In order to support teaching and learning in Science, all classroom learning spaces need to support an interdisciplinary approach to learning science. This is often referred to as “student centered learning.”

Students choose:

- How they learn (in pairs, small groups, hands-on, research, etc.)
- Where they learn (at a lab table, electronic research, in the field, etc.)
- With whom they learn

Flexible spaces are needed in order to support:

- Student collaboration
- Student interaction and investigation

The traditional lecture and memorization approach is replaced with:

- Inquiry
- Investigation
- Problem – solving



B. This approach requires a space that allows students to work together to explore scientific principles:

- Large-open surfaces, unencumbered with fixtures or equipment
- A technology-rich environment to assist their exploration of forces and interaction

C. The student – centered science learning space should be incorporated into the design of each K-5 classroom rather than designing “science classroom labs”.

These learning space requirements apply to all 21<sup>st</sup> Century teaching and learning in all disciplines.

- Students need to present, demonstrate, engage, evaluate and communicate information within a single location

#### **II. Needs of Specialized Equipment**

- Wireless access for all electronic devices
- Infrastructure support for continuous availability of bandwidth to support individual and group access to inter and intranet
- Smart technology, such as but not limited to, interactive white boards and projectors, etc.
- Storage space for all hands – on investigation materials
- Easily moveable furniture that can be used for individual and group study
- Natural light
- Sinks for use of water in investigations and clean-up

#### **III. Social/Emotional/Cognitive Environment**

- All classrooms in the same grade level should be contiguous to support grade level collaboration
- All grade level “gathering spaces” may be incorporated into the hallways to promote academic and social interaction
- Grade level storage that supports sharing of academic resources

#### **IV. Other**

- All K-5 classrooms need to be placed in the building so that grade levels are supported by contiguous classrooms and have “gathering spaces” for an entire grade level as well as:
- Defined classrooms with sound-proofing, walls, and doors.
- Natural light in all classrooms

- Access to restrooms
- Safety considerations for lock-downs and evacuations
- Wired for technology and communication
- Accessibility for students and teachers with disabilities





### Grade 1-5 Learning Spaces - Social Studies

#### *Research Based/Best Practice Curriculum Statement*

A. Elementary Social Studies includes instruction in the four domains of Social Studies: History, Geography, Civics/Government, and Economics

Students are asked to:

- understand communities of support, including family, neighborhood, community, county, state, country and world through an *Expanding Horizons* model
- develop an understanding of community service and civic engagement through curriculum related to personal practices, such as: littering, character building, healthy choices, collaboration, safe risk taking, goal setting, etc.
- understand rules to keep citizens safe (in the family, school, neighborhood, community, country, and world)
- utilize reading and writing to research, synthesize, and respond to multiple perspectives of issues
- differentiate between different forms of political governance, such as democracy.
- evaluate historical perspectives and describe how key events have influenced modern society

#### **I. Space Needs**

A. In order to support teaching and learning in Social Studies, all learning spaces need to support an interdisciplinary approach to learning. This is often referred to as “student centered learning.”

Students choose:

- How they learn (in pairs, small groups, hands-on, research, etc.)
- Where they learn (with simulations and maps, electronic research, in the field, place-based environs, etc.)
- With whom they learn

Flexible spaces are needed in order to support:

- Student collaboration

- Student interaction, research, simulation, and evaluation

B. The traditional lecture, memorization of people, dates, places, and events approach is replaced with:

- Reading and/or constructing viable claims and critiquing the reasoning of a variety of primary and online sources
- Problem solving
- Public speaking and small group presentations
- Summarizing readings and critically consuming information from a variety of sources

C. This approach requires a space that allows students to work together to explore principles of history, geography, civics/government, and economics:

- Large-open surfaces, unencumbered with fixtures or equipment
- A technology-rich environment to assist their exploration of an interconnected world

D. The student – centered science learning space should be incorporated into the design of each K-5 classroom rather than designing “science classroom labs”. These learning space requirements apply to all 21<sup>st</sup> Century teaching and learning in all disciplines.

- Students need to present, demonstrate, engage, evaluate and communicate information within a single location

## **II. Specialized Equipment**

- Wireless access for all electronic devices
- Infrastructure support for continuous availability of bandwidth to support individual and group access to inter and intranet
- Smart technology, such as but not limited to, interactive white boards and projectors, etc.
- Storage space for all primary sources, maps, globes, and instructional materials
- Easily moveable furniture that can be used for individual and group study
- Natural light

## **III. Social/Emotional/Cognitive Environment**



### 3.1.2 Educational Program

#### Teaching Philosophy, Methods and Goals, continued

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- A. Collaborative learning spaces where students can work in small groups or large groups.
  - All classrooms in the same grade level should be contiguous to support grade level collaboration
  - All grade level “gathering spaces” may be incorporated into the hallways to promote academic and social interaction
  - Grade level storage that supports sharing of academic resources

#### **IV. Other**

- A. All K-5 classrooms need to be placed in the building so that grade levels are supported by contiguous classrooms and have “gathering spaces” for an entire grade level as well as:
  - Defined classrooms with sound-proofing, walls, and doors.
  - Natural light in all classrooms
  - Access to restrooms
  - Safety considerations for lock-downs and evacuations
  - Wired for technology and communication
  - Accessibility for students and teachers with disabilities

# Comprehensive Health

## *Research Based/Best Practice Curriculum Statement*

Core Concept is to teach fundamental health concepts, promotes habits and conduct that enhance health and wellness in order to build healthy families, relationships, schools, and communities. (Comprehensive Health: <http://www.doe.mass.edu/frameworks/health/1999/>)

### **Guiding Principles**

Comprehensive Health teaches fundamental health concepts and skills that foster healthy habits and behaviors through **sequential and coordinated teaching** of health, physical, and family/consumer science education at all grade levels.

### **Strands and Standards**

- Physical Health
- Social/Emotional
- Safety and Prevention
- Personal and Community

### **Additional Programs and Resources**

- Project Adventure Curriculum
- Second Steps
- Choose My Plate – Nutrition
- MAHPERD
- Fitness Gram
- SPARK Research Based PE Programs

Students are asked to:

- Cooperate in a team setting
- Make healthy decisions
- Create a safe/supportive environment
- Use fitness technology
- Communicate health information



### I. Space Needs

Physical Education typically incorporates multiple classrooms sharing a common space. An interdisciplinary approach is common practice and requires gymnasium space to achieve. In cooperation with physical activity, the ability to instruct in a multipurpose space with both fitness equipment and instructional technology is essential to teacher success. A final component would be a project adventure space where cooperative games and challenges can be a focus.

Physical Education, fitness and Multi-purpose Space

- a. Team and individual games
- b. Fitness Challenges
  - i. Multi-purpose fields
  - ii. Walking Trail
  - iii. Handicap accessible playground
- c. Cardiovascular Training
  - i. Dance Revolution
  - ii. Pedometers
  - iii. Basic understanding of Heart rate
- d. Flexibility and Balance
  - i. Stretching
  - ii. Fitness bands
  - iii. Understanding of basic anatomy
  - iv. Exercise Ball
- e. Project Adventure
  - i. Element course
  - ii. Team building
  - iii. Problem Solving

### II. Specialized Equipment

- Wireless access for all electronic devices
- Infrastructure support for continuous availability of bandwidth to support individual and group access to inter and intranet
- Smart technology, such as but not limited to, interactive white boards and projectors, etc.
- Large storage space for fitness equipment
- iPad cart for use of specialized fitness apps
- Natural light
- Rubber floor in fitness room to allow for multiple uses
- Indoor climbing wall and other adventure equipment
- Sound system
- Score boards for student engagement

## Grade 1-5 Learning Spaces - Allied Arts

### *Research Based/Best Practice Curriculum Statement*

The Massachusetts Arts Curriculum Framework applies to the study of dance, music, theatre, and the visual arts. In dance, music, theatre, and the visual arts, people express ideas and emotions that they cannot express in language alone. In order to understand the range and depth of the human imagination, one must have knowledge of the arts. The Massachusetts Arts Curriculum Frameworks guiding principles include the following:

- An effective arts curriculum provides a sequential program of instruction in dance, music, theatre, and visual arts for all students beginning in preschool and continuing through high school.
- An effective arts curriculum emphasizes development of students' skills and understanding of creating, performing, and responding.
- An effective arts curriculum promotes knowledge and understanding of the historical and cultural contexts of the arts.
- An effective arts curriculum uses a variety of assessment methods to evaluate what students know and are able to do.
- An effective arts curriculum provides opportunities for students to make connections among the arts, with other disciplines within the core curriculum, and with arts resources in the community.

(<http://www.doe.mass.edu/frameworks/arts>)

Currently at Carver Elementary School, there are two art teachers and two music teachers. With the current population of 850 students, and to meet contractually required planning time, art instructors and music instructors teach at the same time. For this academic year, in two grade levels, (grades 2 and 5) physical education class size numbers have been increased to accommodate the contractual planning time needs due to the .5 art teacher and .3 position cuts. There are two art classrooms, one music room and one music teacher provides music instruction in the regular classroom, thus travels between both buildings to teach students. The Elementary Band and Chorus hold concerts throughout the school year, with performances held at the Carver Middle/High School Auditorium due to a lack of performance area at the Elementary. The space is inadequate for the program and instructional needs in art and music.



### **I. Space Needs- Art**

In order to support the needs of the elementary art program, the learning space for two art classrooms should support the following program activities:

- Whole group instruction
- Independent student work areas
- Furniture that is flexible and allows for student interaction and collaboration
- Adequate storage for art supplies and equipment
- Shelving for display board and sculptures and other student projects
- Sink with heavy duty drain to include clay and/or plaster traps to prevent clogging
- Windows and direct access to outdoors as a means of supplementing the art curriculum
- Teacher desk station for planning and preparation

### **II. Space Needs- Music**

Similar to the art program and due to the skills based approach to music education, 2 music instruction spaces would need to be included. Both music instructors should have an independent teaching space and may share a common storage area. Music classrooms should be located adjacent to the performance area to facilitate instruction and stage rehearsals. Since the Carver Elementary School is home to a vibrant band and chorus program, consideration of incorporating music rooms into a band room and a choral classroom should be made. In order to support the needs of the elementary music program, the learning space for each classroom should support the following program activities:

- Whole group instruction
- Furniture that is flexible and allows for student interaction and collaboration
- Adequate space for storage of supplies and equipment, to include band instruments, music stands and band member seating
- Teacher desk station for planning and preparation
- Direct access for drop off and pick up of band members (afterschool band and chorus programs)

### **III. Specialized Equipment**

- Defined office areas with sound-proofing, walls, and doors

- Natural light
- Access to restrooms
- Safety considerations for lock-downs and evacuations
- Wired for technology and communication to include SMART technology, such as but not limited to, interactive white boards and projectors
- Accessibility for students and teachers with disabilities

#### **IV. Social/Emotional/Cognitive Environment**

The art and music classroom should be designed to allow for collaborative learning spaces where students can work in both small and large groups. Classroom space is designed in such a manner as to support the organization of supplies and materials that supports student learning with adequate and flexible space to support art and music student learning.

#### **V. Other**

- Defined classrooms with walls and doors
- Natural light in all classrooms
- Music classrooms should have larger and/or wider doors to allow for the moving of large musical equipment
- Classroom should be acoustically treated
- Adequate storage area for both art and music instruments and equipment
- Access to restrooms
- Safety considerations for lock-downs and evacuations





## INSTRUCTIONAL BEST PRACTICES

### Special Education

#### *Research Based/Best Practice Curriculum Statement*

Special Education law mandates that students be educated in the least restrictive environment. As stated in Massachusetts state regulations for special education,

*The school district shall ensure that, to the maximum extent appropriate, students with disabilities are educated with students who do not have disabilities, and that special classes, separate schooling, or other removal of students with special needs from the general education program occurs only if the nature or severity of the disability is such that education in general education classes with the use of supplementary aids and services cannot be achieved satisfactorily. 603 CMR 28.06c*

- I. **Two research-based methods of instruction that support least restrictive environment are Universal Design for Learning (UDL) and Response to Intervention (RTI).** UDL is an instructional method that involves creating lessons and classroom materials flexible enough to accommodate different learning styles in the inclusive classroom . It relies heavily on technology to support different learning needs and challenges. RTI is a general education approach intended to provide early identification of students' learning problems paired with the use of focused lessons and interventions to address those learning challenges. It requires the ability to progress monitor students and adjust instructional groups several times throughout a school year.
  - A. Best practices in special education focus on specialized instruction and accommodations that allow students the opportunity to be included in the life of the school as much as they are able.
  - B. Students need:
    - A chance to learn from typically developing peers
    - Accommodations that allow them access to all areas of the school and curriculum
    - The ability to move between specialized services and regular education classes with ease
    - Access to many forms of assistive technology

## **I. Space Needs**

In order to support teaching and learning in Special Education, all learning spaces need to support children with a wide range of needs. This includes students with mobility challenges- in wheelchairs or using walkers, children with vision and/or hearing impairments, students with sensory regulation challenges, students with social emotional disabilities, and students with learning disabilities.

Special Education Services happen in:

- Small group intervention and remedial instructional groups
- Within the regular education classroom
- In technology rich environments
- In alternative curriculum learning environments
- In therapy sessions and counseling sessions

Needed spaces include:

- Therapy rooms for individual and small group speech sessions
- Space for physical therapy and occupational therapy sessions
- Safe and private areas for counseling
- Sensory areas to provide opportunities for motor breaks
- Calming areas for deescalating students who are behaviorally out of control
- Small group teaching areas
- Individual teaching areas
- Areas for teaching life skills, including toileting, cleaning, eating, preparing food, resting, and recreating
- Areas to assess students for special education services
- Areas for having meetings with parents and teams

## **II. Needs of Specialized Equipment**

- Ability to use augmentative communication devices
- Braille embosser and a sound proof space for it to be run during the day
- Storage space in all classrooms to allow for reduction of visual clutter
- Regular education classes that have flexibility in creating small group work areas
- Ability to use a range of student seating (therapy ball chairs, standing desks, small group tables, individual desks)
- Natural light



- Sinks for clean-up
- Areas with good acoustics for students with hearing difficulties or sound sensitivities
- Special education classrooms with sound proofing for students with vocal communication “stims” that resonate throughout the building
- Area for instruction of life skills with kitchen, bathroom, and changing room which can accommodate older children
- Hallways and ramps that can accommodate wheelchairs and walkers, and canes- including recessed drinking fountains to minimize tripping hazards for visually impaired students
- Stairs with contrast strips on the edges
- All signage in Braille
- Student computers and/or iPad stations in all classrooms
- All classrooms with sound enhancement; some with FM systems

### **III. Social/Emotional/Cognitive Environment**

- A. Collaborative learning spaces where students can work in small groups or large groups and special education and regular education teachers can collaborate easily.
- Special education classroom space at each grade level to support inclusion
- B. Adjustable lighting and ability to create small less distracting learning environments within bigger spaces

### **IV. Specific Special Education Programs and their building related requirements:**

#### **A. Inclusion Classes**

Students in the full inclusion program participate in the regular education classroom with support from a special education teacher, paraprofessionals, and therapists who work in collaboration with the regular education teacher to modify and adapt curriculum and instruction. These students may be pulled to a resource room for small group instruction as needed, but it is less than 20% of their day.

Students in the partial inclusion program participate in the regular education classroom with the same types of support as full inclusion students. They may receive a subject area, such as math or reading in a small group special education class. They are in the regular education classroom for at least 40 % of their day.

In order to have successful inclusion services teacher and student need access to:

- An adequate number of student computers and/or iPad stations so that students can access assistive technology without leaving the classroom
- Room that allow teachers to create small group and individual work centers with reduced distractions
- Small group instructional rooms that are located near each grade level
- Sound enhancement or FM systems and ability to adjust lighting
- Access to smart boards and other instructional technology

B. Alternative Learning Programs:

**1 grade K-2 classroom with a maximum of 12 students**

**1 grade 3-5 classroom with a maximum of 12 students**

Students in the alternative learning program have disabilities that significantly impact their cognitive abilities. These program include students significantly impacted by autism. Students receive most all their core academics as well as life skills and social skills in a special education classroom. They often participate in the regular education classroom for some parts of the day, such as morning circle or allied arts classes with the support of paraprofessionals and/or special education teachers. They are in the regular education classrooms less than 40% of their day. These students often have occupational therapy, physical therapy, and speech therapy embedded into their program. Some students have mobility challenges and require use of wheelchair and walkers.

Discrete Trial Instruction (DTI) and principals of Applied Behavioral Analysis (ABA) are research-based practices that are recommended for most children in these programs.

Special Education law mandates that education for these students covers all domains, including daily living skills, social skills, and recreational skills as well as functional academics.

**These classrooms require:**

- Ability to use a wide range of augmentative communication devices and assistive technology
- Storage and charging stations for this equipment
- Room to store walkers, standers, special chairs, etc



## 3.1.2 Educational Program

### Teaching Philosophy, Methods and Goals, continued

- Individual work areas for discrete trial instruction
- Small group instruction areas
- Play or recreation areas
- Bathrooms for toilet training
- Changing areas for larger children
- Eating area for teaching eating and basic food preparation skills
- Sensory area and calming area
- Natural light
- Acoustics that absorb sound as many non-verbal students can sometimes make loud noises in attempts to communicate
- Access to grade level classrooms for inclusive opportunities
- Proximity to therapists (speech, OT, PT, behavior)
- Rubberized floor for students who have limited mobility or tend to crash or tantrum
- Easily sanitized surfaces
- Space for at least 1 teacher and 4 paraprofessionals
- Areas for student cubbies

#### C. Social Emotional Disabilities Program

##### **Grades K-5 with maximum of 12 students**

Students in the SPI program are students with diagnosed or suspected social emotional disabilities that impact their ability to learn in the regular education classroom. These students participate in most of their academics within their special education classroom but the goal is to gradually increase inclusion in regular education classes. Students have individually designed behavior plans and participate in a point and level system. Students have access to a school adjustment counselor as well as social skills and self-regulation classes and sensory break opportunities. The classroom is designed to accommodate behavioral outbursts and/or special sensory needs. This includes defined areas of quiet space, work space with alternative furniture such as standing desks and therapy ball chairs, and safe calm down spaces. This program also has access to an alternative room, called the “green room” that is an empty, but calming, space in which students can be safely managed when they are physically out of control. These classrooms require:

- Areas to accommodate behavioral outbursts

- Sensory area
- Small work spaces that can accommodate alternative furniture such as ball chairs and standing desks
- Work spaces to accommodate hands on project based learning
- Natural Light
- Easy access to adjustment counselor
- Sound proofing
- Access to the “green room”, an empty space in which students can be safely managed when they are physically out of control

#### D. Students with Visual Impairments

Several students with visual impairments continue to attend their community school here in Carver and are included in the general education curriculum. They have additional needs for instruction in braille, mobility, and life skills.

Programming for these students requires:

- Dedicated soundproof space
- Space for a braille embosser
- Hallways free of any obstacles (ie: recessed water fountains)
- Contrast on the edge of stairs
- Spaces to teach cooking, grooming, recreation, and social skills
- Libraries with braille sections

#### E. Therapies

In order to service special education students the district employs speech and language therapists, an occupational therapist, a physical therapist, a vision therapist, and a behavior therapist. All of these therapists perform assessments, hold small group and individual therapy sessions, and provide therapies in the classrooms and consult to all teachers. In order to accommodate these therapists the school will need to have:

- Collaboration Space which includes office space for 6: 2 SLPs and one Speech Language Therapist Assistant, Behavior Therapist and assistants
  - Includes room for groups, assessing, and secured storage of materials
  - Station for creating visuals- printer, computer, table space



### 3.1.2 Educational Program

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#### Teaching Philosophy, Methods and Goals, continued

- Office space for 1 OT and one part time COTA
  - Includes room for groups, assessing, and storing materials
- Sensory room with swings, trampolines, ball pits and small group area for fine motor including typing practice areas
- Office for 1 PT
  - includes space for small groups, assessing, exercising, and mobility practice
- Small group eating area off cafeteria for small therapeutic lunch groups

# Technology

## *Research Based/Best Practice Curriculum Statement*

We live in an ever-changing society in which technology has allowed us to grow exponentially. Information once held within the walls of a library or a classroom flows freely at unfathomable speeds through the internet to personal computers, smartphones, and tablets. That which used to limit us has given us the opportunity to order Red Sox tickets while checking MBTA schedules, while reviewing a friend's tweet of a new Thai restaurant in the Back Bay. These same technologies have rapidly shifted the economics of today and tomorrow. In order to prepare our students to compete in a global workforce, consider the following:

- 1 in 4 workers have been with their employer for less than a year
- China will soon be the #1 English speaking country in the world
- The top ten in-demand jobs in 2013 did not exist in 2004
- We are currently preparing students for jobs that don't yet exist to solve problems that we don't know are problems yet
- Futurist Alvin Toffler said, "The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."
- Schools need to prepare learners to read, write, compute, and critically think. We teach them collaboration, presentation, and how to synthesize information. All of these skills are enhanced by technological skills integrated into the curriculum, allowing learners to apply knowledge skills and understanding in preparation to compete in the careers and colleges of tomorrow.

### **Elementary Technology** (reference: [www.iste.org](http://www.iste.org))

A. Best practices in Curriculum and Instruction in the academic area of Technology are centered around problem-based learning and integrating technology into the curriculum for 21<sup>st</sup> Century teaching and learning to take place.

Students are asked to:

- scrutinize information they can access via the Internet, "apps," and other technological sources.
- utilize programs and apps as tools for collaboration and evidence of learning (Office, eduCreations, etc.)
- engage in higher order thinking and problem based learning as engineered by the teacher





B. Best practices in Teaching, Learning, and Assessment in the academic area of technology are centered around using technology as a way to evaluate, track, and tailor teaching for the needs of each learning by accessing digital assessment suites, collecting and analyzing data to inform instruction, from multiple data points and lenses (student-level, class-level, grade-level, department-based, school-level, and district-wide).

Students are asked to:

- employ instructional strategies modeled in class to solve next-generation assessment questions
- develop keyboarding skills to be able to complete written assignments
- use technological tools that capture a student’s ability to cite contextual evidence, edit equations, and engage in collaborative problem solving of questions with multi-step, real world application

#### **I. Space Needs**

Students choose:

- How they learn (in pairs, small groups, hands-on, research, etc.)
- Where they learn (computer lab, iPads, mobile devices)
- With whom they learn
- Flexible spaces are needed in order to support:
- Student collaboration
- Student interaction and investigation

The traditional lecture and memorization approach is replaced with:

- Inquiry
- Investigation
- Problem – solving
- Determining the value of a digital resource and properly citing evidence from text

This approach requires a space that allows students to work together to utilize technology as a tool for accessing information and synthesizing their findings:

- Large-open surfaces, unencumbered with fixtures or equipment
- A technology-rich environment to assist their exploration of all content areas

- A demonstration area for modeling (for example interactive tools, boards, and areas for probe were such as digital thermometers and gauges that connect with computers for data collection and analysis)

Student-centered learning should reach all spaces of the building and should be incorporated into the design of each K-5 classroom rather than designing “stand alone” computer labs. These learning space requirements apply to all 21<sup>st</sup> Century teaching and learning in all disciplines.

- Students need to present, demonstrate, engage, evaluate and communicate information within a single location
- The physical plant should allow for technology “evolution” and change, capacity of the electrical system to support an unknown quantity of devices in the future, adequate humidity requirements, and other demands to make sure the technology is being used effectively.

## **II. Needs of Specialized Equipment**

In order to support the learning needs in Science in the K-5 classroom, the following are needed:

- Wireless access for all electronic devices
- Infrastructure support for continuous availability of bandwidth to support individual and group access to inter and intranet
- Smart technology, such as but not limited to, interactive white boards and projectors, etc.
- Storage space for any technology equipment (including during summer when summer school is not in session)
- Easily moveable furniture that can be used for individual and group study
- Natural light
- Adequate electrical system to meet the demands of an unforeseen number of devices.

## **III. Social/Emotional/Cognitive Environment**

Collaborative learning spaces where students can work in small groups or large groups.

- All classrooms in the same grade level should be contiguous to support grade level collaboration



- All grade level “gathering spaces” may be incorporated into the hallways with technological enhancements to increase student learning, communication, collaboration, and showcase exemplars of best student work
- Grade level storage that supports sharing of academic resources

#### **IV. Space Needs**

All K-5 classrooms need to be placed in the building so that grade levels are supported by contiguous classrooms and have “gathering spaces” for an entire grade level as well as:

- Defined classrooms adequate bandwidth and wireless accessibility that has capacity to grow with the industry standard
- Infrastructure, servers, and other backend management solutions that meet the industry standard to support 21<sup>st</sup> century learning and teaching, with the capacity for growth
- Technologies that support student safety for lock-downs and evacuations, including but not limited to up-to-date communication, phone, and public announcement systems
- Assistive technology considerations for students and teaching with disabilities including enhanced accessibility (FM systems in appropriate classrooms; sound enhanced technologies and design for all classrooms, augmentative communication devices, etc.)



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## SAFETY AND SECURITY

Carver Elementary School shares a District Wide Safety and Security Plan and has individual school plans for:

- A. Multi-Hazard Evacuation Plan
  - The new building will need to be mapped for all utility shut-offs, exit doors with numbers, stairs and elevator(s).
  - These building maps will be shared with all Emergency Services
  - Evacuation plans for all hazards will be revised for the new building
- B. Medical Emergency Response Plan (MERP)
  - The new building will require new room numbers and phone numbers for the MERP
  - Emergency Responders will need to train in the new building
- C. Security will be controlled through a central entrance for all visitors and Electronic key card access for all employees to specified entries.
- D. Security cameras will monitor all Common and Administrative Spaces and Hallways throughout the building as well as entrance and exit cameras which also monitor playgrounds and fields.
- E. Emergency Communication will rely on two-way communication devices including phones and radios that share communication channels with Emergency Response Personnel.

The infrastructure and technological capacity need to be built for future growth capacity in security systems.