ASSISTIVE TECHNOLOGY PROGRAM

BACKGROUND
Assistive Technology (AT) is technology used by individuals with disabilities in order to perform functions that might otherwise be difficult or impossible. An assistive technology professional analyzes the needs of individuals with disabilities, assists in the selection of the appropriate device or equipment to participate in activities of daily living, employment and education and trains the individual on how to properly use the specific device or equipment. The multi-disciplinary team of professionals who work in the field of assistive technology within the Los Angeles Unified School District (LAUSD) is comprised of highly qualified general and special education teachers with specialized training and experience in the field of assistive technology (AT assessors), speech and language pathologists, occupational therapists and physical therapists, with consultation from deaf and hard of hearing and vision teachers, when appropriate.

All assistive technology educators, as well as many of the team members from other disciplines are certificated by California State University, Northridge (CSUN) through the Assistive Technology Applications Certificate Program (ATACP) and/or the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA).

The Individuals with Disabilities Education Improvement Act (IDEA 2004) and California special education law require that students with disabilities participate in general education curriculum, assessment, and accountability measures. The IDEA and California law also require that Individualized Education Program (IEP) teams consider whether students need assistive technology services and devices when developing IEPs. 20 U.S.C. § 1414 (d)(3)(B)(v); Cal. Educ. Code § 56341.1(b)(5).

Assistive Technology devices and services are defined in the IDEA, at 20 U.S.C. § 1401 (1) & (2), as:
(1) The term “assistive technology device” means any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified or customized that is used to increase, maintain, or improve functional capabilities of a child with a disability.
(2) The term “assistive technology service” means any service that directly assists a child with a disability in the selection, acquisition, or use of an assistive technology device. This includes: evaluation; providing for the acquisition of AT equipment; selecting, designing, maintaining, repairing, or replacing the equipment; coordinating and using other therapies, interventions or services with assistive technology devices; and training or technical assistance for the child, family and other professionals who work with the child.

While “Assistive Technology” is the umbrella term for technology used to increase, maintain, or improve the functional capabilities of individuals with disabilities, the term “Augmentative and Alternative Communication” (AAC) is used within LAUSD to distinguish technology specifically designed to support communication.

Although “consideration” of assistive technology does not mandate assessment, assistive technology devices and services are most often deemed necessary and provided in LAUSD after an assessment has been conducted by the staff at the student’s local school site, staff from the District’s Assistive Technology Program, or both groups in collaboration. Occupational therapists, physical therapists, speech and language pathologists, audiologists, deaf and hard of hearing teachers, and teachers of the visually impaired who work at the school site (the school’s related services staff) should participate as members of the school site’s assistive technology assessment team when appropriate. If equipment is recommended, the local school site has primary responsibility to provide such equipment, with assistance from the Assistive Technology Program as necessary.

As indicated in the LAUSD Special Education Policies and Procedures Manual (July 2007), the District recommends that each school build a loan library of assistive technology tools with an inventory of existing equipment options. This inventory may be used for active intervention efforts conducted by school site personnel when any student at the school is experiencing difficulties with the curriculum. Whenever possible, IEP teams and Student Success Teams (SSTs) should utilize equipment from the school inventory as part of the intervention process for students.

Also referenced in the Special Education Policies and Procedures Manual, the District recommends that schools consider the needs of special education students when writing school site technology plans. Schools are to ensure that students with disabilities have access to the technology at schools that are available to non-disabled students. For example, technology plans should provide for the purchase of computers that allow for adaptations such as special keyboards and switches. If the school has a computer lab, the school should be able to adapt the lab to accommodate students with disabilities. In developing technology plans, and accommodating students with disabilities, school administrators may obtain information and assistance from the Assistive Technology Program.

**PURPOSE**
The purpose of this document is to identify program guidelines that clarify the array of assistive technology supports provided to students within the LAUSD, emphasizing a universal design for learning approach to teaching and learning that will allow all students the opportunity to interact with curriculum in ways that are most meaningful and effective. Universal Design for Learning
(UDL) as defined below, encompasses many of the features currently referred to, and recommended as, assistive technology within the District, and makes those features available to all learners. This paper will also describe the expectations for service completion.

Section I: Pre-referral Response to Instruction and Intervention (RtI²)
Section II: Assessment and Need for Assistive Technology
Section III: Assistive Technology Intervention Strategies within Special Education
Section IV: Assistive Technology Service Completion Guidelines

Universal Design for Learning draws upon and extends principles of universal design as used in architecture and product design to the field of education. The essential features of universal design for learning have been formulated by the Center for Applied Special Technology (CAST) into three principles:

1. The curriculum provides multiple means of representation. Subject matter can be presented in alternate modes for students who learn best from visual or auditory information, or for those who need differing levels of complexity.
2. The curriculum provides multiple means of expression to allow students to respond with their preferred means of control. This accommodates the differing cognitive strategies and motor-system controls of students.
3. The curriculum provides multiple means of engagement. Students' interests in learning are matched with the mode of presentation and their preferred means of expression. Students are more motivated when they are engaged. (Rose and Meyer, 2002)

In addition to providing services for individual students such as screening, assessment, and training on specific assistive technology devices, AT assessors provide training and consultation to schools, classroom teachers and other stakeholder groups on generic assistive technology strategies, tools and supports that can assist all students in accessing their curriculum. Examples of common assistive technology supports recommended for each curriculum area are listed in Attachment A.

**POSITION**
The District believes that in an effort to ensure a successful school experience for all students:

- Students will be able to access their educational environment with appropriate accommodations, as needed.
- Students will be empowered to take an active role to participate in their educational program and to attain the skills to be able to successfully participate in the community, postsecondary education, and other settings.
- Students will have access to a variety of strategies and materials within the classroom setting, including universal design features built into current classroom computers that can be used to address different learning styles. Most students will have access to curriculum without the need for “special” accommodations or referral for special education assessment when universal design for learning principles are utilized in classrooms throughout the District. Students who continue to have difficulty accessing the curriculum should be referred for an assistive technology evaluation after they have had the opportunity to:
  - Participate in a intervention program for a specified period of time;
  - Have their progress in the intervention program assessed and monitored; and
Have their response to the provided interventions evaluated for effective access to the curriculum.

- A parent may, at any time, request an assistive technology evaluation. Upon receipt of the request, the District will follow special education policies and procedures for attending to the parent’s request.
- Students found eligible for assistive technology services will have strategies incorporated into their Individualized Education Program (IEP) for the successful attainment of goals and objectives and will enable the student to participate to the fullest extent in their educational program.
- Students receiving Assistive Technology services will have the opportunity to participate with their non-disabled peers.

SECTION I
PRE-REFERRAL AND RESPONSE TO INSTRUCTION AND INTERVENTION (RTI²)

Response to Instruction and Intervention (RTI²) is a systemic multi-tiered framework that guides the development of a well-integrated and seamless system of instruction (e.g., literacy, numeracy, language development, and positive behavior support across content areas), and intervention that is matched to student need and directed by student outcome data from multiple measures. (BUL-4827.1 Multi-Tiered Framework for Instruction, Intervention, and Support)

The RtI² framework establishes a process for providing increasing levels of instructional time and intensity whereby the needs of all learners are identified, supported early, and effectively. The RtI² framework is based on the provision of good, quality, first instruction and the use of data to identify students for appropriate acceleration and interventions. RtI² implementation is everyone’s responsibility and advances student achievement through frequent progress monitoring, ongoing data collection and analysis as well as the provision of immediate, evidence-based intervention for students who need it. For the school-based related services provider, this may include consultation regarding the average range of acquisition of motor and/or communication skills and monitored interventions. Professional development activities are available to assist classroom teachers in identifying and applying uses of the resources within their classroom to help meet the needs of diverse learners.

The five essential components of RtI²:
- Multi-tiered framework to instruction and intervention
- Problem-solving progress
- Data-based decision-making
- Academic engaged time
- Professional development

In a multi-tiered approach to instruction and intervention, teachers provide instruction at each tier of service that is differentiated, culturally responsive, data-based and aligned to the grade-level content standards. All students should have universal access to high-quality instruction. The multi-disciplinary team is an integral part of the RtI² process in the general education setting.
participating in this intervention approach, the AT Assessor, in collaboration with other related services staff as appropriate to identify student needs, contribute expertise to the problem solving process and provides strategies for any student who may evidence challenges in accessing the curriculum. The problem solving process requires a step-by-step focus to define the problem, analyze the problem, implement intervention strategies, and evaluate the response to the instruction and intervention.

**Tier 3: Intensive Instruction and Intervention**

It is expected that an estimated 1-5% of students will need individualized and/or very small-group instruction that is highly focused in addition to Tiers 1 & 2, and designed to accelerate student progress.

**Tier 2: Strategic or Supplemental Instruction and Intervention**

It is expected 10-15% of students will need additional time and specialized instruction to learn successfully.

**Tier 1: Core Instruction**

It is expected that of all of the students receiving core instruction, 80-85% of students will be proficient when good first instruction is delivered.

A Problem Solving Cycle in General Education

**Identification**

AT Assessors may be called upon to assist in the identification of issues involving functional access to the curriculum that students may be experiencing.

**Problem Analysis**

AT Assessors analyze problems in concert with classroom teachers and are experts in the identification of tools and strategies to assist students in accessing their instructional program.

**Intervention Design**
AT Assessors will assist the instructional team with incorporating the use of assistive devices and strategies into the classroom instructional program to provide universal access to instruction for all students.

**Response to Instruction and Intervention**
AT Assessors will also assist the educational team with progress monitoring, ongoing data collection, and evaluation to determine the success or failure of the intervention. Results are analyzed to determine the level of intensity and support necessary for individual students.

**Intervention Strategies**

**Tier 1: Core Instruction**
Within Tier 1, the AT assessor may provide consultation to the school staff to identify resources already at the local school site such as the built in accessibility features of computers, standard word processing programs, the variety of pencils and papers available, calculators, rulers, digital recorders and other devices, which can be used to augment instruction and provide options for students to use to access curriculum.

At this level of service students have not been identified as requiring assistive technology and consultation is focused on:

- Increasing the general knowledge base of teachers on how to use the materials within the classroom and school site to enhance access to learning for all students.
- In-servicing teachers on universal design for learning principles and how they can be applied to their instructional program by using multiple means of presenting information to students, allowing for multiple means of expression by the students, and providing multiple means of engagement for the students.
- Providing ideas for setting up the physical arrangement of the classroom for student success.

**Tier 2: Strategic or Supplemental Instruction and Intervention**
In Tier 2, AT program staff will assist school-site AT teams in matching appropriate strategies and/or assistive technology devices within the school environment to address the specific needs/learning modes of all students and to screen students for possible assistive technology needs. School-site AT teams should be familiar with materials already on site and how they could be used to provide access for students. In addition, assistive technology staff is available to provide information on how and where to acquire additional strategies and/or materials to make curriculum accessible and to provide professional development for school site teams in the area of assistive technology for specific curriculum areas.

Screenings are based upon a review of records and work samples, as well as interviews with the classroom teacher and appropriate school-site related services personnel. They do not involve pull-out or any activity which removes the student from his/her regular school activities and may include observation of a student in a peer group if the observation does not in any way identify or single-out the student as the one who is being observed. As part of the screening process, the assistive technology assessor will review with the school site team teacher data regarding the outcomes of classroom accommodations from Tier 1 and provide follow-up screening, as appropriate.
Following the screening, the assistive technology assessor may:

- Provide information to the teacher, school staff or parent to support the determination that the student is able to access the curriculum successfully, with no need for additional supports.
- Provide recommendations for targeted interventions or program accommodations to be implemented and documented by the classroom teacher and/or parents.

It is recommended that interventions and their outcomes be documented for a reasonable period of time.

**Tier 3: Intensive Instruction and Intervention**

In Tier 3, AT program staff (teacher assessors, augmentative and alternative communication-trained speech and language assessors, physical and occupational therapists) will provide professional development activities to enable school-site AT teams to select appropriate assistive technology devices and customize their features to assist students in accessing the curriculum. Strategies and/or equipment will be put in place for a trial period and linked to a specific curriculum goal (i.e. Student will use text-to-speech word processing to produce a 3-5 paragraph essay with correct spelling, grammar and punctuation, 4 out of 5 trials.)

If the trial with available strategies and/or equipment is successful, student should continue to utilize them for as long as necessary to accomplish curriculum goals.

When the use of this technology is not successful, school sites should consider referring the student for special education assessment.

It is recommended that interventions and their outcomes be documented for a reasonable period of time.

**SECTION II
ASSSESSMENT AND NEED FOR SERVICES**

*The mission of the Division of Special Education is to provide leadership, guidance, and support to the school community in order to maximize learning for all students within an inclusive environment so that each student will contribute to and benefit from our diverse society.*

Consideration of the need for assistive technology should be an integral part of a comprehensive assessment for a student in all areas related to his/her suspected disability and educational needs. Schools sites should use a collaborative approach when considering AT for students with disabilities that includes soliciting input from service providers who are knowledgeable of the disability and the aspects of AT associated with the disability.

Possible indicators for an assistive technology assessment include students who demonstrate:

- Difficulty organizing thoughts when engaged in writing activities
- Difficulty producing handwriting that is legible and properly aligned on the page
- Letter reversals/substitutions when reading or writing
- Skipping lines when reading text from a page
Inability to speak or unintelligible speech
Difficulty aligning math problems on a page
Spelling/word finding difficulties

In some cases, the school site staff may not have sufficient knowledge to make appropriate assistive technology recommendations by themselves for students with more complex needs. Assistance should be requested from the District’s assistive technology program when conducting assessments for those students, as well as when assessing students who have been assessed previously for assistive technology supports through the AT program.

SECTION III
SERVICE DELIVERY MODELS WITHIN SPECIAL EDUCATION

Assistive technology is available as a support to students, classroom teachers and other support staff on an as-needed basis. It may be in the form of in-service training on assistive technology assessment procedures and equipment, consultation to school site staff in how to use and integrate specific assistive technology devices into the classroom program, collaborative assessment of students with identified access needs, in addition to direct services to students who have been assessed and provided with assistive technology equipment.

Consultation - is a service provided indirectly to the student consisting of regular review of student progress, student observation, accommodations and modifications for core material, developing and modeling of instructional practices through communication between the general education teacher, the special education teacher, parent and/or related service provider.

Collaboration - is a service by which general education teachers, special education teachers and/or related service providers work together to teach students with and without disabilities in the classroom. All educators and service providers are responsible for direct instruction, planning and delivery of instruction, student achievement, and progress monitoring to support the student goals and objectives and to access the curriculum. Service may include training students to use recommended assistive technology equipment, customizing the set up of the equipment specifically for the student, training for the student’s teacher, parents and support staff in the use of the equipment including how to integrate its use into the classroom instructional program.
Direct Service - As student abilities and curriculum demands change, students and the school-site staff who work with them may require occasional one-on–one instruction and support. Students who have been assigned their own devices, either by the Assistive Technology Program or through the local school site especially require monitoring to make sure their equipment is in working order and continues to meet their needs throughout their school career. School site staff may also need training in how to use and integrate the equipment into the instructional program. Each school has been assigned an AT assessor who is available on an as-needed basis to provide training, consultation and support to the students and staff at each site. In addition, support is available through the District’s Assistive Technology Lending Libraries and the learning centers on elementary and secondary campuses.

SECTION IV
ASSISTIVE TECHNOLOGY SERVICE COMPLETION GUIDELINES

Best practices require that expected outcomes and service completion guidelines are discussed with the IEP team upon the implementation of assistive technology supports and upon change of service. IDEA mandates that assistive technology needs be considered at every child’s IEP. Assistive technology needs can vary, based on changes in student abilities and/or academic demands throughout their school career. There are several factors the IEP team should consider when making decisions regarding service completion:

1. The student’s disability no longer negatively affects his or her educational performance in the special education or general education program.

2. The student is able to access the curriculum successfully without the use of assistive technology.

3. The student consistently demonstrates behaviors that are not conducive to service provision, such as a lack of cooperation, motivation, or chronic absenteeism. In these circumstances the IEP team should consider alternate services or strategies to remedy interfering behavior or conditions.

4. The student’s needs will be better served by an alternative program and/or service, as determined by the IEP team.

5. The student graduates from high school.

6. The student reaches the age of 22 years.
### Examples of Assistive Technology Supports by Curriculum Area

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<thead>
<tr>
<th>Curriculum Areas</th>
<th>Examples</th>
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</thead>
<tbody>
<tr>
<td><strong>Reading</strong></td>
<td>Sentence Isolators</td>
</tr>
<tr>
<td></td>
<td>• Books on tape, CD, MP3 file or etext</td>
</tr>
<tr>
<td></td>
<td>• Screen reading software to allow printed material to be scanned into a computer and read aloud to the user</td>
</tr>
<tr>
<td></td>
<td>• Text-to-speech software that allows users to change the appearance of the text by manipulating the font color, size, spacing, etc.</td>
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<tr>
<td><strong>Math</strong></td>
<td>• Calculators</td>
</tr>
<tr>
<td></td>
<td>• Software that provides symbols and/or support for formatting math problems</td>
</tr>
<tr>
<td></td>
<td>• Software with onscreen manipulatives</td>
</tr>
<tr>
<td><strong>Writing</strong></td>
<td>• Pencil grips</td>
</tr>
<tr>
<td></td>
<td>• Wide-lined paper</td>
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<tr>
<td></td>
<td>• Text-to-speech word processors with or without built-in phonetic dictionaries and spellcheckers</td>
</tr>
<tr>
<td></td>
<td>• Use of dictation, either to a peer or into a tape recorder</td>
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<tr>
<td></td>
<td>• Software that combines pictures with words for those students with limited spelling abilities</td>
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<tr>
<td></td>
<td>• Portable electronic word processors Voice output portable electronic dictionaries</td>
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<tr>
<td></td>
<td>• Word prediction software</td>
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<tr>
<td></td>
<td>• On-screen keyboards for students who cannot access traditional keyboards</td>
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<tr>
<td><strong>Communication</strong></td>
<td>• Picture communication books or boards</td>
</tr>
<tr>
<td></td>
<td>• Specialized keyboards for computer access</td>
</tr>
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<td></td>
<td>• Speech generating communication aids</td>
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</table>
ATTACHMENT B

Instructions for Completing an Assessment Plan for Assistive Technology and/or Augmentative Alternative Communication

Referrals for assistive technology assessment are indicated as an alternate assessment within the performance area of concern on the assessment plan. (Please see table below.) Referrals for reading, written expression or math should be indicated by checking Academic Performance. Referrals made due to concerns about the motor act of writing are indicated under Motor Abilities, and referrals for communication concerns are listed under Language Function.

<table>
<thead>
<tr>
<th>Assessment Areas</th>
<th>Assessment Instruments</th>
<th>Responsible Personnel</th>
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</thead>
<tbody>
<tr>
<td>Academic Performance</td>
<td>Alternate assessment AT for: (please specify)</td>
<td>Special Education Teacher and Other (write in AT)</td>
</tr>
<tr>
<td>Language Function (When referral is for communication)</td>
<td>Alternate assessment Specify “AAC”</td>
<td>Check LAS and Other “AAC”</td>
</tr>
<tr>
<td>Motor Abilities</td>
<td>Alternate assessment AT for (the physical act of ) writing</td>
<td>Check Occupational Therapist and Other (write in AT)</td>
</tr>
</tbody>
</table>
RELATED RESOURCES

Rose, David H. and Meyer, Ann; (2002), *Teaching Every Student in the Digital Age*. Association for Supervision and Curriculum
