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Department of Education

OFFICE OF RELATED AND CONTRACTUAL SERVICES

Assistive Technology Guidebook 2008-09

NEW YORK CITY DEPARTMENT OF EDUCATION

Center for Assistive Technology Guidebook 2008-09

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Introduction

Assistive Technology (AT) devices and services are available for students as part of a Free and Appropriate Public Education (FAPE). Technology has been proven to be a useful tool that helps students with disabilities access the educational curriculum. The intended outcome when AT is implemented for a student is greater independence and increased success towards accessing the curriculum. This Assistive Technology (AT) guidebook has been developed to assist Individualized Education Program (IEP) Teams when considering the use of AT and AT services for a student.

When the IEP team meets to determine the needs of a student with disabilities, AT like any other service may be considered. Assistive technology assessments need to be completed following the same guidelines as other specialized assessments such as Speech, Occupational or Physical Therapy. Evaluations must be completed within the designated timeframe of 60 calendar days from the consent for an initial case, and 60 calendar days from the date of referral for students who are already receiving special education services. The need to conduct an AT evaluation is to be considered on a case-by-case basis. An evaluation may be conducted by:

1.) School/Integrated Service Center(ISC)/Committee on Special Education (CSE) level staff or

2.) Department of Education's AT Centers (CAT or Tech-Solutions-D75) or

3.) Agencies under contract with the DOE or independent evaluators with knowledge of assistive technology

In the instance where ISC or school level staff is knowledgeable of assistive technology and capable of making appropriate suggested recommendations, that particular staff can provide the IEP team with a report/documentation supporting the suggested assistive technology recommendation. The IEP team will review this documentation, make the final recommendation and then proceed with obtaining the necessary AT as outlined later in this guideline. In the case where the ISC, school level staff or IEP team is not able to make a determination without a more specialized assessment, these AT guidelines outline the process to obtain an evaluation through a referral to CAT or if necessary via an outside non-DOE evaluator. District 75 staff should follow the guidelines established through the Office of Technology Solutions.

What is Assistive Technology (AT)?

Assistive Technology is defined as both a ***device*** and a ***service***. **Assistive Technology Devices** are defined by IDEA as:

> *"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 the functional capabilities of a* ***child*** *with a disability." (34CFR § 300.5)*

An **assistive technology service** is defined by IDEA as:

> *"any service that directly assists a child with a disability in the selection, acquisition or use of an assistive technology device."*

Assistive Technology Services

- purchasing, leasing or otherwise providing for the acquisition of AT devices for a child with a disability;
- selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing AT devices;
- coordinating and using other therapies, interventions, or services with AT devices, such as those associated with existing education and rehabilitation plans and programs;
- training or technical assistance on AT for a student with a disability (and if appropriate, that student's family); and
- training or technical assistance for professionals (including individuals providing education or rehabilitation services) employers, and/or other individuals who provide services to, employ, or otherwise are substantially involved in the major life functions of a student.

It is important to note that AT services may be provided by any knowledgeable Department of Education staff. The implementation of AT is not solely the responsibility of one discipline or related service provider.

It is the responsibility of the Department of Education to provide appropriate AT devices/services if the student does not already have this equipment/service provided through other avenues (e.g., Medicaid, etc) and if the student's IEP mandates AT devices. These services and devices must be provided at no cost to the student or parent. However, if these services/devices are necessary as part of the student's daily living routine (i.e., wheelchair, walker, prosthetic device, eyeglasses, hearing aids), and are not in place to facilitate the educational program, the provision of such services/devices is the responsibility of sources other than the New York City Department of Education.

Please be aware, that *General Education Students* (Students without IEPs) who have a recognized disability and may require special assistance can be considered for an assistive technology accommodation through the Department of Education's Section 504 process. Students who may be eligible for 504 are students who are disabled and in need of accommodations within the meaning of §504 in order to enable the student to attend and participate in school activities on an equal basis with his or her peers.

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Determining the Need for Assistive Technology

What does "Consideration" mean?

Consideration is a process in which the IEP team gathers information, documentation, and analyzes it to determine the student's needs for AT. Currently, there is no required licensure to be an assistive technology specialist or to provide technical guidance. Typically technical guidance can be sought from teachers of speech and language disabilities, Occupational Therapists, Physical Therapists, and Special Education Teachers who have knowledge and or experience with AT.

At this point, there are four possible decisions that the IEP team can make. They are as follows:

1) AT is not needed. The student has been found to be making adequate progress and can access his curriculum through modification, remediations and other types of intervention. Nothing additional is required.

2) AT is needed and is currently being used successfully. In this case, the IEP team redocuments on the IEP the type of AT device or service (not the manufacturers name) that has been found to be effective and makes sure that the device/service continues to be available to the student.

3) AT may be needed but the IEP team is unsure as to what service or device would meet the student's need. In this case, the IEP team might decide that new AT should be trialed and additional documentation collected before they make their decision.

4) AT may be needed but the IEP Team does not have AT knowledge or needs a specialized evaluation in order to make a informed decision. In this scenario, the IEP team makes a referral for an AT evaluation as outlined in this guide.

The SETT Framework

The SETT framework is a process developed by Joy Zabala and was first presented at the "Closing the Gap Conference in 1995." Since then, this framework has been adopted by others as a resourceful tool in helping IEP teams with the decision making process for Assistive Technology. The components of **SETT** are:

Student Environment Task Tool

When considering AT, first the student, the environment and tasks must be considered before tools are selected.

Student - Describe current abilities and what is impeding the students learning and/or functioning.

- What does the student need to do?
- What are the student's current abilities and special needs in regards to communication, fine motor, gross motor, cognition, learning style etc.?

Environment –Identify the settings or areas in which the student spends time and the tasks asked of the student.

- What equipment and materials are currently available in the environment?
- How is instruction delivered?
- Are there special concerns?
- What is the physical arrangement?
- Who are the primary people working with the student?

Task – Describe the specific tasks the student is currently not able to perform at the level consistent with his/her abilities.

- What specific activities take place in the environment?
- What are the critical elements of the activities?
- How might these activities be modified to accommodate the student's special needs?
- How might technology support the student's active participation in these activities?

Tool – The selection of the tool(s) is based on the environment and tasks. The tools involve a continuum of no-tech, low-tech, and high tech systems and strategies which support a student's needs, abilities and tasks.

- What no-tech, low- tech, and/or high tech options should be considered?
- What strategies might be used?
- How will this be tried with the student?

The SETT framework promotes logical thinking by all team members. In the appendix, a SETT worksheet has been provided as a guide for use by the IEP team if they choose to do so.

Could assistive technology (AT) help this student?

Should IEP driven AT be considered?

The AT Referral Process
School -Age
ISC/CSE

What does the student need to do? What has already been tried?

IEP Team

The Student Environment Task Tool (SETT) Framework (See page 4) has been utilized and the school staff is unable to make a determination as to the type of AT that might be necessary for the student.

School sends an AT referral form with current IEP to the Center for Assistive Technology (CAT) to schedule an evaluation or secures an outside AT evaluator

CAT team conducts an AT evaluation and provides a written report to the IEP team with suggested recommendations and if necessary purchase order information.

The IEP team reviews documentation at the school level meeting and makes a final recommendation. **If AT is recommended,** it is noted on the IEP.

If AT is recommended –
The IEP team submits the IEP with AT needs (device type, & purchase/AT information) to the ISC for procurement of equipment.

The school staff is knowledgeable of AT and can provide the necessary documentation and information for the IEP team to consider. See SETT Framework for additional support.

The IEP team reviews documentation at the school level meeting and makes final recommendation. **If AT is recommended**, it is noted on the IEP.

If AT is recommended –
The IEP team submits the IEP with AT needs (device type, & purchase/AT information) to the ISC for procurement of equipment.

Note: Private schools are to submit their request for AT evaluations to the CSE.

Could assistive technology (AT) help this student?

Should IEP driven AT be considered?

The AT Referral Process Preschool CPSE

What does the student need to do? What has already been tried?

IEP Team

The SETT Framework has been utilized and the **school/CPSE** staff is unable to make a determination as to the type of AT that might be necessary for the student

CPSE sends an AT referral form request, current IEP to the Center for Assistive Technology (CAT) to schedule an evaluation or secures an outside AT evaluator

CAT team conducts an AT evaluation and provides a written report to the IEP team with suggested recommendations and if necessary purchase order info.

The **CPSE** team reviews documentation at the CPSE meeting and makes final recommendation. **If AT is recommended,** it is noted on the IEP.

If AT is recommended – The CPSE team submits IEP with AT needs/ AT information) to the **CAT office** for procurement of equipment.

The **CPSE** staff is knowledgeable of AT and can provide the necessary documentation and information for the IEP team to consider. See SETT Framework for additional support.

The CPSE team reviews documentation at the CPSE meeting and makes final recommendation. **If AT is recommended**, it is noted on the IEP.

If AT is recommended – The CPSE team submits IEP with AT report) to the **CAT office** for procurement of equipment.

Programmatic Assistive Technology

In certain circumstances, a student may require limited access to a device during the school day. If this is the case, then a recommendation for AT can be made programmatically. Examples of this are: class computers, switch operated tools, specialized pens, wedges, mats, prone boards, standing tables, software, etc. Equipment of this nature may be available at Integrated Service Centers (ISCs), schools, and State Education Department (SED) approved non-public schools, school age and pre-school programs. The need for AT that is programmatic in nature should be indicated in the Health/Physical Management Needs on page five of the IEP, and indicated as "***equipment-available programmatically***". If a student requires equipment that is not readily available at the program site, the ISC, Committee on Special Education/Committee on Preschool Special Education (CSE/CPSE) must order the equipment for the site.

When a device can be obtained programmatically and it is found appropriate by the IEP team to allocate the device for use by an individual student, that equipment should be provided to that student who will have exclusive access to the device when needed in order to meet IEP goals. For example, if a student requires a computer in order to produce written work, and there is an extra computer in the school which is not in use, provision of that computer for that student would comply with the obligation of the school system, provided that the designated computer will meet the needs of the student in question. Programmatic recommendations and considerations are determined at the school level and are not referred to CAT.

If the student requires or is being considered for an **FM unit**, that request needs to be evaluated by persons involved with hearing services at the ISC/CSE, e.g. audiologist and is <u>not</u> a referral to be sent to the Center for Assistive Technology.

Universal Design

Universal Design for Learning (UDL) is a framework that enables educators to present curricula that addresses the needs of all learners. The original concept of Universal Design was built on the ideas developed by architects, engineers, and design researchers who established the underpinnings of what would make a design functional for everyone. UDL recognizes that every learner is unique and processes information differently. UDL encourages educators to find:

- Multiple ways for learners to acquire knowledge and information.
- Alternative ways for learners to share what they know
- Multiple ways to engage the learner

UDL is not a single solution option but rather UDL fosters multiple approaches for all learners. Schools should incorporate A*ssistive Technology* in UDL planning for their classes and/or programs to support all students' unique learning styles thus making costly, time-consuming, and after-the-fact changes to curriculum unnecessary. This approach does not necessarily result in IEP driven Assistive Technology but makes technology accessible for all learners within their learning environment.

UDL often involves key elements such as consideration of instruction and the environment. UDL might result in:

- ✓ The use of digital text, animation, video, diagrams as opposed to only using standard textbooks.
- ✓ Providing information that incorporates multiple sensory modalities (visuals, auditory, tactile graphics)
- ✓ Curriculum options that incorporate cognitive supports, captioned videos, transcripts of audio information
- ✓ Furniture that can be adjusted to heights and accessibility

For further information regarding Universal Design, log onto the Center for Applied Special Technology (CAST) website at http://www.cast.org/research/udl/index.html. CAST provides model UDL lesson plans as well as further details concerning UDL.

Additional Web resources have also been provided later in this manual.

Instructional Technology

There are many kinds of technology that teachers and educational support staff use during the school day to enhance their teaching, to provide student practice and to motivate a student (Smartboards, software, tutorials etc.). This type of technology is Instructional Technology (IT) and is not considered Assistive Technology (AT). One way to determine the difference between IT and AT is to remember that AT acts as a support to provide the student access to the curriculum that otherwise would not be available to him/her due to the disability. IT is typically used to help a student learn a new skill, but if taken away the student would still be able to access the curriculum.

Assistive Technology Evaluation

As mentioned earlier in this document, the IEP team can make a referral for an Assistive Technology assessment when there is no qualified staff available to conduct the AT assessment, or due to the complexity of a particular case, there is a need for additional analysis.

Note: If the Center for Assistive Technology is unable to provide the AT evaluation within the required timeframe, the ISC/CSE/CPSE must contract out the evaluation or use the Assessment Authorization process.

Center for Assistive Technology AT Referral Process:

- For students currently receiving special education services in Public Schools, Preschools and approved Non-Public Schools (NPS), the IEP team/ISC/CSE/CPSE will send the CAT referral form (see appendix) along with the child's current IEP and any other documents that will aid in the assessment process (for example, samples of the student's writing, teacher, parent comments regarding concerns) to the Center for Assistive Technology.

- If the student is an initial case (a student currently being evaluated to qualify for special education services), the ISC/CSE/CPSE may submit the above documentation, indicating that it is an initial case, along with any other supporting documentation, to the Center for Assistive Technology (CAT).

- If the AT referral is requested through an impartial hearing order, the school/ISC/CSE/CPSE should indicate that on the referral and provide any documentation that will aid in the assessment process. Information regarding time constraints should also be provided.

- Upon receipt of the referral, the Center for Assistive technology will contact the school/ISC/CSE/CPSE to arrange an evaluation by the CAT evaluation team.

- Students currently receiving special education services from District 75 are to follow the procedures as outlined by District 75 TechSolutions. Please refer to the District 75 website for further clarification: http://schools.nycenet.edu/d75/technology/assistive/default.htm

Assistive Technology Assessment:

If the IEP team has requested that the CAT conduct an AT assessment, CAT will schedule an appointment at the student's school or at the CSE for schools located outside the 5 boroughs. The IEP team may invite the parent to attend the evaluation. As part of the evaluation, the CAT team evaluators may need to:

- Observe the child in his/her class
- Interview the teachers, staff working with the student

- Interview the parent
- Review the IEP and discuss with school staff and parents the tasks/goals outlined for the student to accomplish
- Assess the student using Assistive Technology
- Review samples of the student's work
- Review samples of work from student peers (confidentiality will be maintained)
- Ascertain what AT is currently available for the student
- If necessary, arrange a loaner device, for a trial period before making a recommendation. Loaner periods have typically ranged from 4 to 12 weeks

The school or CSE where the evaluation/training is being conducted will also need to arrange space/area for the CAT evaluation team to use to trial or train on the suggested AT device.

1. If the CAT team evaluators are able to make a recommendation, they will:
   - Submit to the IEP team/ISC/CPSE (for public schools and preschools), CSE (for private schools) an AT report that includes a suggested recommendation (AT or no AT) regarding the student's AT needs

Note: This is a *suggested recommendation*; it does not mean the student is entitled to the AT that was recommended. The IEP team must meet, review and make a final decision regarding the student's AT needs.

- If the suggested recommendation is for an AT device, the CAT evaluators will also provide a *suggested purchase order* to use as a guide for the ISCs/CSEs/CPSEs to use in procuring the equipment. When possible the CAT evaluators will try to provide FAMIS portal information for the equipment, otherwise vendor information, (such as model number, cost, etc), and vendor contact information (Vendor name, address phone number, etc.) will be provided.

Note: As contracts change, the FAMIS portal information provided may have changed and is only provided to assist the ISCs/CSEs. It is best practice for the ISC/CSE to research and confirm this information at the time procurement of the equipment is being made.

2. If the CAT team evaluators have determined that the student should **trial** AT before a recommendation can be made, the CAT evaluation team will:
   - Contact the CAT office to arrange a trial period
   - Arrange loaner of equipment necessary for the trial period either through the ISC/CSE or CAT office
   - Identify the school contact personnel who will be responsible for the AT during the trial period
   - Provide a report that indicates a loaner trial period is warranted.
   - CAT evaluators will train school staff and parent (if necessary) on use of the device and provide loaner logs to be completed during the trial period by school staff (See appendix)
   - If necessary, CAT evaluators will schedule a follow-up visit that will occur after the trial period

- If necessary, write an addendum to the report with suggested recommendations after the trial period and follow-up visit is completed

An Outside AT Evaluation:

There may be times when the IEP team receives a report via the parent from an outside agency or independent provider recommending Assistive Technology. This is also a suggested recommendation and must be reviewed by the IEP team. In this scenario, the IEP team/CSE/CPSE team can if they wish submit the outside report to the CAT for review and additional guidance or the IEP team can move forward and continue with their EPC conference and make a final recommendation.

IEP Procedures

Assistive technology devices and services must be properly documented on the students' Individualized Education Program (IEP).

It is best practice to document the decision making process used to consider the student's needs for Assistive Technology. For example, a statement such as *"An analysis of the specific tasks within the pertinent instructional areas revealed that Johnny can accomplish the tasks; therefore Assistive Technology is not required."* could be used to document where AT was considered but found not to be required. For a student requiring assistive technology, an example of a statement such as, "*An analysis of the specific tasks within the pertinent instructional areas revealed that Johnny has difficulty completing written work in English and social studies classes due to motoric limitations; therefore it is recommended that he use a portable word processor to complete written assignments in school and at home*".

During the IEP process, it should be remembered that AT is not about providing a separate curriculum. Its focus is to give students who need it access to the general education curriculum with appropriate supports. In this regard, AT is written as a "tool" when generating IEP goals. *Using Assistive Technology to Meet Literacy Standards: An IEP Guide by* S. L. Purcell and D. Grant is an excellent resource to assist in generating goals. See samples below.

Using a portable word processor S will write persuasive compositions stating a clear position, providing supporting evidence and addressing reader concerns and counter arguments with ___% accuracy ___/___ times.

Using a pre-programmed Voice Output Communication Aid (VOCA), S will deliver an 'oral' response to literature demonstrating an ability to summarize critical details with ____% accuracy ___/___times.

Pg.

When AT is recommended, the IEP team indicates the type of AT recommended, for example, Voice Output Communication Aid (VOCA), or word processor device (not the manufacturer name) on page 5 of the IEP and checks off AT device.

Procurement of AT Equipment

Once the IEP is completed and indicates an AT recommendation, the IEP team submits:

- School Age Children in Public schools
  - a copy of the IEP, AT report and suggested purchase order information to the AT liaison at the ISC for procurement of the equipment
- School Age Children in DOE approved non public schools (NPS)
  - a copy of the IEP, AT report and suggested purchase order information to the AT liaison at the CSE for procurement of the equipment
- Preschool Children in DOE approved sites
  - a copy of the IEP, AT report and suggested purchase order information to the CAT Coordinator for procurement of the equipment
- District 75 Schools
  - Follow guidelines as outlined by Tech Solutions

It is suggested that the ISCs and CSEs provide an updated list of the contact personnel for AT on an annual basis to their school network teams and IEP team specialists.

It is also suggested that the AT liaisons at the CSEs and ISCs maintain a small inventory of AT equipment/software for the purpose of loaning during requests for repairs and/or trials.

AT Training

The Center for Assistive Technology will provide a one day training session for students, staff, and parents after the assistive technology equipment has been obtained for the student. This is not to be confused with assistive technology services. The purpose of the training session is to:

- provide an overview of the use of the equipment and initial set up
- if necessary, software installation
- if needed, provide sample communication boards
- record school staff member responsible for the AT equipment and who will act as liaison for repairs
- respond to general questions regarding the AT recommendation

Once the school has received all of the AT equipment, the school can contact the Center for Assistive Technology to schedule a training date. Note: This training is provided upon request. If the IEP team feels that the school is able to use the AT equipment without training, then the IEP team will be responsible for the initial set up and documentation of the person responsible for the equipment.

It is recommended that the IEP Team and/or school staff involved with the student using the AT; hold an informal follow-up meeting 12 to 16 weeks after the implementation of AT. This will help determine if any additional supports are required and decrease the possibility of equipment abandonment.

AT Services

As mentioned earlier, **assistive technology service** is defined by IDEA as:

> *"any service that directly assists a child with a disability in the selection, acquisition or* ***use of an assistive technology device****."*

The DOE's *Special Education Services As Part of a Unified Service Delivery System (The Continuum of Services for Students with Disabilities)* manual outlines AT services as:

> *"Assistive Technology Services may also be recommended on the IEP and consist of any service--including an assistive technology evaluation that directly helps a student with a disability select, acquire or use an assistive technology device."*

AT services in this section is primarily focusing on the use of an assistive technology device. During the IEP meeting, the team needs to determine if the student requires assistive technology services in order to implement the AT recommended. The IEP Team should discuss the following to determine the type of AT services required:

- What level of support will the teacher and school staff require in order to successfully meet the needs of the student utilizing AT? The amount of support will vary in every situation and school setting.
    - For example, a teacher and related service providers might be able to arrange time within their schedules to collaborate and program an AT device and in doing so might find it unnecessary to require additional AT services.
    - In another scenario, the related service providers familiar with AT might find it appropriate to incorporate AT service needs into their goals/objectives/schedule. This option might require adapting the number of sessions provided to the student.
    - Yet in another situation, the IEP Team might determine that due to the complexity of the AT recommended and the goals to be accomplished, AT services are required ___ times per week, or per month for ___ amount of time. In this scenario, the IEP team will need to decide who will provide the support (DOE personnel, outside provider).
- What level of ability does the student have to successfully utilize the device with the support of the school staff? Does the student require that someone work with him on a daily/weekly/monthly basis in order to achieve independent use of the AT?
    - If the student can utilize the device with school support, AT services are probably unnecessary.
    - If the student cannot utilize the device, (for example, the AT device is extremely complex but not too complex that it exceeds the students capability), then the IEP

The IEP team checks off AT services on the IEP ***ONLY IF*** the team has determined that the student needs AT services for the acquisition and use of the AT device. Assistive technology devices/services are listed on the IEP form under Supplementary Aids and Services/Program Modifications and Accommodations, Assistive Technology Devices/Services, Supports for School Personnel.

Example of how to indicate AT services on the IEP
Assistive technology services are recommended two hours per week for 6 months to provide support to school staff, and student in the use of, implementation and programming of the VOCA for classroom activities.

Who can provide AT services?

AT services may be provided by any Department of Education staff, qualified to provide the specific service. At this time, there are no particular licensure or certification requirements for assistive technology in New York State. The implementation of AT is not solely the responsibility of one discipline, teacher or related service provider. Successful implementation of the IEP requires that all school staff involved with the student and parents share in the responsibility of implementing the AT recommendation

The personnel providing the AT services might be involved in a variety of activities. This can range from working directly with the student, providing additional training to school staff and parents and also programming of the device. AT services should not be considered as a separate, isolated unit of support. The goal of AT services is for the successful implementation of the AT recommended to allow the student to access the general education curriculum as outlined on the IEP. It is therefore extremely important that the personnel providing the AT services understand and focus the services to meet the students curriculum needs.

If DOE personnel are **not** available, only then can the ISC/CSE/CPSE seek a contracted service providers or independent service providers knowledgeable of the AT services requested using the standard procedures for obtaining an outside service provider.

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Criteria for AT Selection

Think task focused, not device focused

Upon determining that AT is warranted and the student's needs, environment, and tasks have been outlined, the determination of the tool is the next step. The range of assistive technology solutions/ materials/equipment/devices is vast and can range from No-Tech to High-Tech

No-Tech and Low-Tech AT allows the student to function in his/her environment as "naturally" as possible. Mid-Tech and High-Tech increase in complexity and may require a higher level of student support for care, programming, up-keep and use.

The IEP team should remember that the AT selected should be accepted by the student, in other words, if the student refuses to use the suggested AT, the IEP team should discuss other options that include preferences of the student. The selection should be based on the task that the student needs to accomplish---think task focused, not device focused. When selecting AT, the IEP team should consider if it would be beneficial to recommend the AT for a trial period in order to document its effectiveness. The IEP team should also consider whether the AT is to be used in the student's home or in other settings in order for the student to receive a free appropriate public education.

During the selection process, the IEP team needs to also consider how the AT device/equipment will be utilized. For successful implementation, will it be necessary to program the device? Who will be available to program? How will homework assignments be entered? Can this be done by support staff that is already working the student at the school (paraprofessional, related service provider, teacher)? Will the student be able to use the AT independently, with minimal support or will extensive support be required?

Failure to outline these areas could result in the recommended AT not being used and the student not being able to access the curriculum as well as wasted funding.

The examples listed below are a small sampling of what might be considered in the categories ranging from no-tech to high tech. Please note that this is a sample list and selections should not be limited only to the items listed.

No Tech – Does not require any specialized equipment

Samples of No-Tech:

- preferential seating/working position (standing rather than sitting)
- provision of extra cues or prompts
- breaking information into steps
- using physical cues and directions
- highlighting key words etc. on paper
- reduction of choices
- color coded systems for organization
- large print materials
- peer tutoring
- cooperative learning
- extended time
- alternative assignment or shortened assignments
- change text size, spacing, colors on reading material
- transcripts of lesson

Low Tech – Minimal complexity

Samples of Low-Tech:

- picture schedules/directions or reminders
- tape recorded instructions
- headphones for isolating attention
- book holders

- adapted scissors
- high lighters
- manipulatives etc. for math, i.e. raised number lines
- calculator
- slant boards for writing/reading
- dry erase boards
- laminated book pages (grip and durability)
- writing templates/guides
- books on tape
- Picture Exchange Communication system (PECS)
- picture labels
- classroom devices w/ speech output (Language Master etc.)
- teacher created books
- pencil grips
- page fluffers
- specialized paper (line indicators, extra space between lines, raised lines, etc.)
- Eyegaze board frame with symbols

Mid to High Tech – A more complex, specialized system or device

- talking dictionary
- portable electronic organizers
- reading pens
- computer accessibility options
- large monitors
- touch windows or monitors
- screen magnifiers
- scanners
- interactive reading software
- modified keyboards
- on-screen keyboards

- switch-controlled computers
- voice recognition software
- portable word processor
- talking word processors
- digital recorders/voice reminders
- laptops
- software
- rebus/ PCS symbols software/word processing program
- voice output communication aid (VOCA)

Equipment Maintenance, Inventory and Repair

Students in District 75 programs will follow the procedures as outlined by District 75.

Assistive Technology Inventory:

The ISC/CSE AT designees should maintain a database of all AT devices/equipment purchased and assigned to students via IEP mandate. This database should include the following information:

- Student Name and ID number (OSIS)
- Current School
- Type of Equipment
- Make and model numbers
- Serial numbers
- Date purchased
- Repair record
- Warranty information

It is also advisable for each school to maintain information as to which students have IEP driven AT as well as equipment used to support 504 accommodations. The principal designee maintaining this information should include the following data:

- Student name and ID number (OSIS)
- How AT is provided (via 504 or IEP driven)
- Type of AT equipment
- Make and model numbers
- Serial numbers
- Date received
- Repair record

.

As mentioned earlier, it is also recommended that the ISC/CSE AT designees maintain an inventory of AT materials/devices /software to use as trial period loaners, repair replacements and IEP mandated AT. This will support the ISC/CSEs ability to provide AT recommendations in a timely fashion.

Equipment repair:

When there is a need for repair of AT equipment for school-age children, the contact person at the school should contact the AT liaison at the CSE or ISC regarding the need for repair and possible loaner of equipment while device is repaired. The ISC or CSE contact can both assist the school contact with warrenty information and contact the vendor for technical support and direction.

Transferring of Assistive Technology Equipment/Devices:

When a student is transferred to another ISC/CSE immediately after the recommendation for AT is made on the IEP, the recommending ISC/CSE is responsible for funding or providing the AT.

When a student transfers or articulates to the next level, it is the responsibility of the sending ISC/CSE to ensure that the student's IEP mandated AT device/equipment follows the student to the new school site. **NOTE:** Programmatic equipment should remain at the former school. A programmatic device must then be provided at the new site by the ISC/CSE of service as indicated on the IEP.

When transferring AT equipment/device, the sending ISC/CSE must obtain a written confirmation from the new school indicating that the equipment has been received and is in their possession. Both sending and receiving ISC/CSEs should indicate the equipment transfers on their respective inventory databases.

For preschool students, the CPSE Administrator is responsible for tracking the transfer of equipment to either the new DOE approved preschool site or the school-age site (turning fives). If the preschool student is not continuing with a NYC DOE IEP mandate for AT, the CPSE Administrator is responsible for notifying the Center for Assistive Technology (CAT) so that the AT equipment/device can be recovered.

If the student graduates from school, or discharged from a NYC DOE program, the equipment is typically returned to the ISC/CSE of service of the student's last attendance. The ISC/CSE can work with the transition team of the student for purchase/transition of the equipment.

Note: when a student is discharged and or leaves the NYC DOE program the ISC/CSE can consider making arrangements with the receiving service system to purchase/transition the equipment.

Lost or stolen Equipment:

It is recommended that a police report be completed and maintained on file in the event that the AT equipment is lost or stolen. The ISC/CSE is responsible for replacing the lost or stolen Department of Education equipment.

Repair or Replacement of Assistive technology Devices/Equipment:

Repairs or replacements are the responsibility of the current ISC/CSE of service. Recently purchased devices should be covered for repairs under the warranty.

If the school staff notices that an AT device is not functioning properly, the designated school contact person, or other knowledgeable staff for the school, should be contacted for assistance. If the problem is not resolved at this level, then the Center for Assistive Technology (CAT) should be contacted for technical assistance. If it is then determined that repair or replacement of the device is necessary, the designated school contact person should:

- Contact the manufacturer of the device to determine whether the device is still covered under the warranty.
- Have the name of the device, serial number and purchase order information available.
- If the warranty has expired, the company may be able to repair the device if they have a contract with the Department of Education. In this case, consider a cost analysis between the cost of a new device and repair of the existing device. It may be more efficient to purchase a new device as prices for technology usually decrease over time.
- Contact the ISC/CSE for assistance and guidance of procedures of their repair/replacement process.

Computer Repairs

- The Department of Education has vendors under contract for the repair of specific computer equipment. As this information periodically changes, the service school should contact their ISC/CSE AT designee for assistance.

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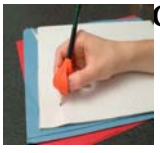
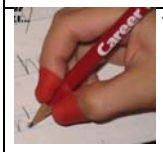
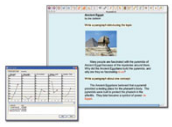
AT Toolbox

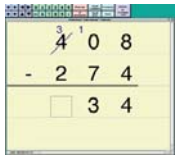
The information provided in this section is to assist the IEP teams, ISC/CSEs with descriptions and details of possible types of assistive technology available. This only represents a sample and by no means is it an indication of the only AT to be considered. The information is presented according to the categories mentioned previously and not by order of priority or importance. If possible, we have provided FAMIS portal information. Please note however, that this information changes and should always be confirmed when ordering materials and or equipment. Note, for clarification of information, the manufacturer names are included, the AT equipment type is written in blue and may be helpful when generating statements for the IEP.

No Tech to Low Tech	
Item	**Vendor Information**
Write Size Writing System – Writing Aid Helps students with fine motor control difficulties and visual impairments, improve writing size, legibility, spacing awareness and to keep the letters on the baseline.	**FAMIS Portal # - 438072286** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602 www.abilitations.com
Pencil Grips –Writing Aid Pencil grips come in a variety of sizes and shapes. Used to position fingers correctly, keep the web space open and provide an area of contact for the fingers when writing	There are various types of pencil grips in FAMIS. Listed below is an example for a variety pack: **FAMIS Portal # - 438013298** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602
 **Grotto Grip –Writing Aid** Places fingers in a tripod grasp. Grip discourages hyper-mobility at the joints. For both left & right hands.	**FAMIS Portal # - 438071808** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602
 **Writing C.L.A.W. –Writing Aid** For students with hand difficulties, the writing C.L.A.W. helps position fingers when holding pencils, forks, spoons, paint brushes, etc.	**FAMIS Portal # - 438071808** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602

No Tech to Low Tech Continued	
Item	**Vendor Information**
The Writing Bird – Writing Aid For students that have difficulty holding pens. Pen sits easily in holder and glides across page.	**FAMIS Portal # - 438010418** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602
Weighted Universal Holder-Writing Aid Helps to stabilize the hand and provide additional weight for individuals who have difficulty "bearing down" when using a writing instrument.	**FAMIS Portal # - 438012372** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602 www.abilitations.com
RediSpace Paper – Adapted Paper Paper has visual cues that help students recognize margins. Helps to facilitate correct spacing between letters.	**FAMIS Portal # - 438042573** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602
Raised Line Paper - Adapted Paper Slightly raised lines to provide tactile as well as visual feedback for students who have difficulty staying in the lines	**FAMIS Portal # - 438039149** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602
Picture Communication Symbols (PCS) **Commmunication board** Note book for impementing the Picture Exchange Program. An alternative communication approach	Mayer-Johnson LLC P.O. Box 1579 Solana Beach, Ca 92075 800 588 4548 www.mayerjohnson.com
Slant Boards – Writing Support Slant boards are used to encourage better posture & positioning for writing and reading	**FAMIS Portal # - 438024117** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602 www.abilitations.com
Eye -Talks- Eye Gaze Frame For students unable to use oral language, hands or body parts have the option of using a direct stare to incdicate a particular selection.	Enabling Devices 385 Warburton Ave Hastings on Hudson, NY 10706 914 478-0960 www.enablingdevices.com
Calculator Different calculators available based on student needs such as talking calculators, scientific, etc.	There are several calculators in FAMIS. Below is an example for a talking calculator: **FAMIS Portal # -438016327** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602

Low To Mid Tech	
Item	**Vendor Information**
The Go Talk – **Static display, speech output** A light weight static display VOCA with various locations and levels. Enables students to communicate wants and needs.	Go Talks are available in different levels **Example Go-Talk 9+ FAMIS Portal # - 4804259X** Abilitations PO Box 922668 Norcross, GA 30010-2668 Tel: 800-850-8602
Spell Checker- **Hand held spell checker** For students with difficulty spelling . Some hand held spell checkers make phonetic spell corrections and holds personal spelling lists.	There are several types of spell checkers **FAMIS Portal # 270050019** Franklyn Electronic Publishers One Franklin Plaza Burlington, NJ 08016
LEO – Multi-level speech output VOCA with Static display interchangeble grids (1, 8 and 32) Has 32 minutes of recording time Can use thematicpicture scenes or digital picture scenes..	Also available with scanning features **FAMIS Portal # 435005618** (standard) Assistive Technology Inc 333 Elm Street # 115 Dedham, MA, 02026 www.assistivetechnolgy.com
Switches For students who are unable to use their fingers for direct selection. They have different pressure sensitivities and are used for alternative access	Switches are available in different sizes, textures, etc. **FAMIS Portal # 438022815 (Red switch)** SPORTIME LLC 3155 Northwoods Parkway, Norcross, GA 30071 800 333-0712
TechTalk-Multi-level speech output A static display VOCA, with 1, 4, 8, 32 and 128 cells. For students with difficulty communicating or who are nonverbal.	Available with different level options **FAMIS Portal # 435051008** (level 6x8) AMDI 200 Frank Road Hicksville, NY 11801 (888) 353-2634
Intellikeys – Keyboard Acess An alternative keyboard that plugs into any Mac or PC computer. For students that have difficulty using a standard keyboard.	**FAMIS Portal # 43501756X** Attainment Company Inc P. O. Box 930160 Verona, WI 53593 800 327 4269 www.attaimentcompany.com
Hand held Magnifier Students with low vision ability may benefit from a hand held magnifier to view text and written work. .	Various magnifiers are available **FAMIS Portal # 082519269** Staples Inc 45 Cedar Lane Englewood, NJ 07631 www.staples.com
Trackball Mouse Alternative Device can be used for students who present difficulty using a standard mouse or joystick.	Various options such as, head pointers, touch pad, joystick. **FAMIS Portal # 4350020015** for trackball. Ablenet Inc, 2808 Fairview Ave. North. Roseville, MN 55113 (800) 322-0956

Mid to High Tech	
Item	**Vendor Information**
NEO – Portable Word Processor A lightweight portable word Processor.. Has word prediction software, spell check dictionary, etc	**FAMIS Portal # - 433010010** Renaissance Learning Inc. 2911 Peach Street PO Box 8036 Wisconsin Rapids,WI54495 Tel: 800-338-4204
Fusion Portable Auditory Word Processor- Portable word processor with auditory feedback capability.	The Writer Learning Systems P.O. Box 186 Paso Robles, CA 93447 800 797-7121 info@writerlearning.com
Reading Pen –Portable Reading device Help students with reading and learning disabilities. Scans words or full lines of text.	WizCom Technology Inc. 234 Littleton Rd Westford, Ma 01886 888 777-0552 Ext. 110
Calcuscribe –Portable word processor with math support For students who have difficulty writing and/or processing mathematical computations.	SmartPad Inc 98 Cervantes Blvd Suite #1 San Francisco, CA 94123 www.calcuscribe.com 415 923-1024
 **Write-Outloud - Software** For students who do not express their knowledge of the subject or their creative thoughts in written form that reflects their true ability..	**FAMIS Portal # 800029534** Don Johnston Inc. 26799 W Commerce Drive Volo, Il 600073 800 740-0749
Tango -VOCA Device w/ Dynamic display Phrase based VOCA, connects to computer for written expression. Has 5 modes of communication.	Blink Twice Inc 900 Broadway 8th Floor NY., NY 10003 www.blinktwice.com 877 254-6511
Read &Write Gold-- Software Literacy support software, for reading, learnng and writing.	Read Write Gold Mobil **FAMIS Portal # 932625002** Meizner Inc. 4771 Boston Post Road, Pelham, NY 10803 718 671-7400
Mercury -VOCA Device w/ Dynamic display Fully integrated Microsoft® .Windows ® XP based AAC device. Can be used with alternative keyboards, mouse, joystick, etc.	Option 1 –**FAMIS Portal # 435005103** Assistive Tech Inc. 333 Elm Street # 115 Dedham, Ma 02026 800 793-9227

Mid to High Tech Continued	
Item	**Vendor Information**
Dynavox V/ Vmax – **VOCA Device w/ Dynamic display** A communication device and computer Allows multiple ways to convey a wide range of age appropriate subjects	**FAMIS Portal # 43508268X** VMax Dynavox Systems LLC 2100 Wharton Street # 400 Pittsburgh, PA 15203 800 344-1778
Palm **VOCA Device w/ Dynamic display** A palm sized commnication device with preprogrammed page sets and with a variety of locations.	Dynavox Technology 2100 Wharton Street Suite 400 Pittsburg. PA 15203 800 396 2869
Intellitools **Classroom Suites Software –** Provides differentiated instruction by tailoring specific instructional activities to individual learning needs..	Intellitools Inc. 1720 Corporate Circle Petaluma, Ca 94954 www.intellitools.com 800 899-6687
 **Math Pad -Software** Provides visual support and can display each problem in correct vertical format directly on the computer.	**FAMIS Portal # 588880167** Intellitools Inc. 1720 Corporate Circle Petaluma Ca 94954 800 899-6687
Kurzweil - Software Comprehensive reading, writing and learning program.Facilitates active reading, highlighting, annotations, voice notes, etc.	Kurzweill Education Systems 213 Bainbridge Street Philadelphia, PA 19147 866 822-7519
Laptop For students that require an alternative way to access their curriculum due to limited writing, motoric or a learning disability.	**FAMIS Portal # 70840877X** Dell Marketing, LP 1 Dell Way R. R. 8 BOX 8716 Round Rock, TX 78682 800 692 3355
EyeGaze Device - Eyegaze Contains a built in eye-tracker. It can be combined with any speaking communication software. For students with no other access point except their eyes.	Various eyegaze devices available from other vendors Tobii ATI 333 Elm Street Dedham. Ma 02026 800 793-9227

Administrative Support

This section will assist school administrators in providing guidance and support to their IEP teams as they consider the assistive technology needs for the students in their schools.

The Quality Indicators for Assistive Technology (QIAT) is a tool that provides indicators/statements that can be used by administrators as a guide for assurance that assistive technology is being provided appropriately in their schools. A sample of the indicators is listed below. For full details of the Quality Indicators, log on to http://sweb.uky.edu/~jszaba0/QIAT.html

Excerpt from QIAT

Quality Indicators for Assistive Technology

Assistive Technology Implementation:

Assistive technology implementation pertains to the ways that assistive technology devices and services, as included in the IEP (including goals/objectives, related services, supplementary aids and services and accommodations or modifications) are delivered and integrated into the student's educational program. Assistive technology implementation involves people working together to support the student using assistive technology to accomplish expected tasks necessary for active participation and progress in customary educational environments.

1. **Assistive technology implementation proceeds according to a collaboratively developed plan.**
2. **Assistive technology is integrated into the curriculum and daily activities of the student across environments.**
3. **Persons supporting the student across all environments in which the assistive technology is expected to be used share responsibility for implementation of the plan.**
4. **Persons supporting the student provide opportunities for the student to use a variety of strategies–including assistive technology– and to learn which strategies are most effective for particular circumstances and tasks.**
5. **Assistive technology implementation includes management and maintenance of equipment and materials.**

Testing Accommodations

The IEP team will need to determine if it will be necessary to have testing accommodations specifically related to the AT recommended. The IEP team will need to consider:

- How the student will take State assessments?
- Will the student need to record responses in any manner?
- Will the student require alternative assessment?
- Will the student require flexible scheduling?
- Will the student require an alternative test format?

Additional information regarding test accommodations for students with disabilities can be obtained at the following website:

http://schools.nyc.gov/daa/testmemos_0809/default.asp

NYC DOE Center for Assistive Technology web access:

Please log on to the website for a copy of the CAT referral form. Additional resources will be available on the website in the near future.

http://schools.nyc.gov/Offices/Health/Assistive+Technology.htm

WEB Resources

The following resources have been compiled to assist the IEP teams/ISCs/CSEs/CPSEs in their decision process for assistive technology.

The Access Center

The Access Center for Improving Outcomes for All Students K-8 is a national technical assistance center funded by the U.S. Department of Education's Office of Special Education Programs (OSEP). Drawing from national legislation such as the **No Child Left Behind Act** and **IDEA '97,** the Center is designed to improve outcomes for all Students K-8 and provide technical assistance that strengthens State and local capacity to help students with disabilities effectively learn in the general education curriculum. They have a wide range of resources to address issues related to enhancing access to the general education curriculum. Their materials and resources include FAQs, information briefs, training modules and professional development tools.

http://www.k8accesscenter.org/index.php/category/universal-design/

Atomic Learning

Atomic Learning's **Assistive Technology Collection** includes short, show-and-tell video tutorials that empower educators to use and apply assistive technology. The foci of these tutorials are:

- Special education software
- Assistive technology devices
- Software accessibility training tutorials

http://movies.atomiclearning.com/k12/assistivetechnology/?gclid=CK_K64ybz5UCFQOaFQodw2XZiw

Baltimore City Schools Assistive Technology

The Baltimore City Schools have a website of books that have been adapted using the Picture Communication Symbols (PCS) and the Mayer-Johnson program BoardMaker. All files with symbols were created using Boardmaker Version 5.0.10 and require you to have that program loaded onto your computer into order to access these files. If you have your **own** copy of the book, they have files that allow you to print the symbols that were used to adapt the books

http://www.baltimorecityschools.org/BoardMaker/adapted_library.asp

Center for Applied Special Technology (CAST)

Founded in 1984 as the Center for Applied Special Technology, CAST has earned international recognition for its development of innovative, technology-based educational resources and strategies based on the principles of Universal Design for Learning (UDL). CAST Provides a Free Online Tool to Improve Curriculum for All

http://www.cast.org/about/index.html

Closing the Gap

Closing The Gap, Inc. is an organization that focuses on assistive technology for people with special needs through its bimonthly magazine, annual international conference and extensive Web site. Closing The Gap *Solutions* answers the most common questions in special education and rehabilitation:

- What products are available?
- What do they cost, and where can I get them?
- How do I use them?

Closing the Gap Solutions is available in online or print editions.

http://www.closingthegap.com/solutions/

University at Buffalo Assistive Technology Training Online Project

The ATTO project was developed to address the diverse, multi-level needs for Assistive Technology training by exploring the potential of web-based instruction to create virtual workshops. The training model focuses on the use of adapted computer technology to facilitate the educational process and independent participation of students with disabilities in elementary (K-5) classrooms.

http://atto.buffalo.edu/

Quality Indicators for Assistive Technology Services (QIAT)

The QIAT Consortium is a nationwide group of individuals who provide input into the ongoing process of identifying, disseminating, and implementing a set of widely-applicable Quality Indicators for Assistive Technology Services in School Settings that can be used as a tool to support:

- school districts develop and provide quality assistive technology services aligned to federal, state and local mandates
- assistive technology service providers as they evaluate and improve their services
- Identifying and developing resources that can help school districts improve their assistive technology services.

http://natri.uky.edu/assoc_projects/qiat/index.html

The QIAT website below, principals and administrators further guidelines regarding technology for teaching and learning

Administrators Guide to Effective Technology Leadership

http://natri.uky.edu/assoc_projects/qiat/documents/QIAT%20in%20Action%20Administrator%20Guide%209.23.06.pdf

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Appendix

SETT FRAMEWORK

AT CONSIDERATION WORKSHEET

CAT Referral Form

AT Trial/Loaner Worksheet

AT DEFINITIONS

FREQUENTLY ASKED QUESTIONS (FAQ)

SETT FRAMEWORK

Student (LAST, FIRST, MIDDLE	DOB	OSIS
School	Grade	Date
Name of person completing form	Phone number	
IEP team members contributing information		

Student

Describe current abilities and what is impeding the student's learning and meeting his/her IEP goals.

_____

_____

_____

Environment

Identify the environment where the student spends time and the tasks asked of the student. What equipment is currently available? How is instruction delivered? Who are the primary people working with the student? What is the physical arrangement?

_____

_____

_____

Tasks

Describe the specific tasks the student is currently not able to perform at the level consistent with his/her abilities. How might these tasks be modified to accommodate the student's special needs? How might assistive technology support the student?

_____

_____

_____

Tools

Based on environment and tasks, identify the tools (strategies, AT) that will support the student's ability to access the curriculum. Do you need to trial the suggested recommendation?

_____

_____

AT Consideration Worksheet

Student: _____ School: _____ Date: _____

Directions: Complete only the areas that are relevant to the student needs - mark the box with an '**x**'. The questions in *italics* have been provided to focus discussion and consideration.

TASK: *What task do we want the student to do that he/she is unable to do at a level that reflects his/her abilities?*	**Current Ability:** *Can the student complete the Task with special strategies/ accommodations, please describe?*	**Current Assistive Technology:** *Is the student using Assistive Technology (AT)? If so, is it available at the school? Has the student used AT in the past? What was the outcome?*	**Assistive Technology Needs** – (New or Re-eval): *Would the use of Assistive Technology allow the student to perform the desired task, in the least restrictive environment at a level that reflects his ability?*
☐ **Mechanics of Writing**			
☐ **Composing Written Work**			
☐ **Reading**			

Student Name: _____

AT Consideration Worksheet Continued

TASK: *What task do we want the student to do that he/she is unable to do at a level that reflects his/her abilities?*	**Current Ability:** *Can the student complete the Task with special strategies/ accommodations, please describe?*	**Current Assistive Technology:** *Is the student using Assistive Technology (AT)? If so, is it available at the school? Has the student used AT in the past? What was the outcome?*	**Assistive Technology Needs** – (New or Re-eval.): *Would the use of Assistive Technology allow the student to perform the desired task, in the least restrictive environment at a level that reflects his ability?*
☐ **Math**			
☐ **Learning/ Organization**			
☐ **Communication**			

Student Name: _____

AT Consideration Worksheet Continued

Participants in AT consideration process:

_____

TASK: *What task do we want the student to do that he/she is unable to do at a level that reflects his/her abilities?*	**Current Ability:** *Can the student complete the Task with special strategies/ accommodations, please describe?*	**Current Assistive Technology:** *Is the student using Assistive Technology (AT)? If so, is it available at the school? Has the student used AT in the past? What was the outcome?*	**Assistive Technology Needs** – (New or Re-eval): *Would the use of Assistive Technology allow the student to perform the desired task, in the least restrictive environment at a level that reflects his ability?*
☐ **Vision**			
☐ **Other** _____			

_____

Eval. Outcome:

☐ **No AT required**

☐ **Accommodations/Strategies sufficient to meet student needs**

☐ **AT required, available at school**

☐ **AT trial period requested for the following:**

_____**/Length of trial period**_____

☐ **The following AT is suggested to meet student needs:**

_____

Center for Assistive Technology
49-51 Chambers Street, Room 600
New York, NY 10007
Tel: 212 374-2156/57/58
Fax: 212 374-9435

IEP Mandated Assistive Technology (A.T.)

- **What is Assistive Technology?**

IDEA states that assistive technology is " 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." (34CFR § 300.5)

- **How do I determine if the student needs Assistive Technology?**

Please refer to table below as a guide

If you are considering assistive technology because…	IEP mandated Assistive Technology is not appropriate	Student may need Assistive Technology IEP team can '*consider*' needs independently or complete referral for further assistance
The student needs to be motivated	•	
The student wants to access the internet or likes computers	•	
The student cannot communicate via typical voice and alternative methods have not been effective		•
The student can not access the curriculum via typical modes comparable to his peers and alternative methods have not been effective		•
The student has reading deficit that is addressed programmatically	•	
Students' handwriting is illegible due to lack of practice and or instruction in penmanship	•	

An IEP team needs to *'consider'* whether or not a child needs assistive technology. In order to consider that need, at least one person on the IEP team should have knowledge of assistive technology. You cannot "consider" something about which you do not know anything about.

- **Someone on the team is knowledgeable of assistive technology, now what do I do?**

If the IEP team determines that the student requires assistive technology and someone on the IEP team is knowledgeable of what is required, then that person can evaluate and provide written documentation. The team can then move forward with the process as directed by their ISC/CSE for adding the assistive technology recommendation to the IEP. **A referral to the Center for Assistive Technology is not required.**

- **The IEP team is not knowledgeable about assistive technology or is unaware as to what will help the student access the curriculum?**

If the IEP team cannot determine the assistive technology needs of the student and the consideration for assistive technology is not to motivate the student or provide programmatic instruction, then **the IEP team should complete the attached referral and forward it to the Center for Assistive Technology at the above address.**

Center for Assistive Technology
49-51 Chambers Street, Room 600
New York, NY 10007
Tel: 212 374-2156/57/58
Fax: 212 374-9435

Assistive Technology Evaluation Referral

Instructions: Please complete this form; attach a copy of the student's most recent I.E.P. and SUBMIT TO THE CENTER FOR ASSISTIVE TECHNOLOGY AT THE ABOVE ADDRESS OR CSE/CPSE OFFICE REPRESENTATIVE FOR PRESCHOOLS AND/OR PRIVATE SCHOOLS.

Parental Consent ❑ Yes ❑ No **Date of Referral** _____

PART I

Student's Name _____ _____
Last Name First Name

Date of Birth _____ Age _____ OSIS # _____ Sex: ❑Male ❑Female

Parent/Guardian Name _____ Relationship _____

Circle ISC Bronx
Brooklyn
Manhattan
Queens
Staten Is.

If Applicable
CPSE_____ CPSE Administrator _____
CSE_____ CSE Contact_____
School _____School Contact _____
❑ Public School ❑ Private School

District 75 □Yes □ No
Student receives vision services? □Yes □ No
If yes to either, please contact Tech Solutions to schedule an AT evaluation - 212-802-1530

Program _____ School # _____ Grade: _____ School Name _____
(Staff ratio)

School Address _____
(Include: Street, Town and Zip Code)

Evaluation Contact Person _____ Contact Person's Title _____

Contact Telephone #_____ Fax #_____

Team Members / Service Providers	Name	Frequency	Duration	Group Size
Teacher	_____			
SETSS	_____			
Paraprofessional	_____			
Speech & Language	_____	_____	_____	_____
Physical Therapy	_____	_____	_____	_____
Occupational Therapy	_____	_____	_____	_____
Vision Services	_____	_____	_____	_____
Hearing Services	_____	_____	_____	_____
Counseling	_____	_____	_____	_____
Other_____	_____	_____	_____	_____

Teacher _____ _____ _____
Teacher's Name Signature Date Prepared

READING

Student reads at grade level_____

Student has difficulty comprehending the following: (Check all that apply)

❑Words ❑Subject area textbooks ❑Reading textbooks
❑Worksheets ❑Tests

Student's reading performance is improved by: (Check all that apply)

❑Small amount of text on page ❑Computer with speech output ❑Lower reading level
❑Enlarged print ❑Bold type for main ideas ❑Masking
❑Graphics to communicate ideas ❑Reduced length of assignments ❑Other: _____
❑Spoken text to accompany print

WRITING

Student writes grade appropriate ❑Yes ❑No Grade Level _____

Current writing ability: (Check all that apply)

❑Writes with right hand ❑Prints letters ❑Writing is slow and arduous
❑Writes with left hand ❑Prints words ❑Writing is limited due to fatigue
❑Holds regular pencil ❑Writes cursive ❑Complains of pain during writing
❑Holds pencil adapted with: _____ ❑Writes independently and legibly

Current keyboarding ability: (Check all that apply)

❑Does not currently type ❑Types with 10 fingers and correct hand position
❑Types with one finger ❑Accidentally hits unwanted keys
❑Types with several fingers ❑Uses one hand ❑Uses two hands
❑Uses adapted/alternate keyboard (please specify): _____

Computer Use

Computer availability in the classroom:
❑None
❑Macintosh
❑Windows
Computer available at home ❑yes ❑no

Computer Lab
❑None
❑MAC
❑WIN
❑Daily for > two subjects / periods

Student uses computer:
❑Rarely
❑Frequently
❑Daily for one subject / period

If yes, Home Computer ____PC or ____Mac

MATH

Grade level: Student is placed in grade _____ Student's math is at grade level_____

Student's math performance is improved by: (Check all that apply)

❑Small amount of text on page ❑Computer with speech output ❑Lower skill level
❑Enlarged print ❑Bold type for section identification ❑Masking/Highlighting
❑Graph Paper ❑Reduced length of assignments ❑Uses manipulatives

❑Spoken text to accompany print ❑Use of calculator ❑Other: _____

Student's Name:

Please list the student's strengths, learning style, interests, and any other significant factors that should be considered:

_____

_____

Speech and Language

Teacher _____ _____ _____

Teacher's Name Signature Date Prepared

❑Students' speech and language skills do not require assistive technology/augmentative alternative communication (aac) at this time.

COMMUNICATION – If requesting an AAC evaluation please complete below

Student's present means of communication:

(Check all that are used, circle primary method the student uses)

Intelligible speech ☐Familiar listener ☐Unfamiliar listener ☐Facial expressions ☐Eye-gaze / eye movement

☐Gestures ☐Pointing ☐Reliable Yes/No ☐Writing

☐Sign language (few combinations) ☐Sign language (many combinations)

☐Vocalizations, list examples: _____

☐Semi intelligible speech, estimate % of intelligible: _____

☐Single words, list examples and approx. #: _____

☐Communication board: ☐PECS ☐tangibles ☐pictures ☐combo picture/symbols ☐words

Maximum number of symbols per field: _____. If so, how many symbols do they recognize? _____

☐Voice output communication device (name of device): _____

☐Other: _____

Attention Span: ❑Severely Limited ❑Benefits from redirection ❑Within normal limits

Desires to communicate: ❑Always ❑Occasionally ❑Never

Current level of receptive language: Age Approximation_____

Current level of expressive language: Age Approximation_____

Skills related to communication:

Object / picture recognition	☐Always	☐Sometimes	☐Never
Symbol recognition (tactile, Mayer-Johnson, Rebus, etc.)	☐Always	☐Sometimes	☐Never
Follows simple directions	☐Always	☐Sometimes	☐Never
Selects initial letter or word	☐Always	☐Sometimes	☐Never
Sight word recognition	☐Always	☐Sometimes	☐Never
Can put two symbols/ words together to express an idea	☐Always	☐Sometimes	☐Never

Student's Name:

Is a specific type of symbol or picture preferred?

_____

Does the student appear to do better with black-on-white, white–on-black, or specific color combinations for figure/ground discrimination?

_____

The student initiates communication in which settings (Check all that apply)

In academic settings _____ In the lunchroom_____

On the school bus_____ At play _____

At home _____ Other (please describe) _____

Has the student used an augmentative communication device in the past? ☐ Yes ☐N0 If yes, which one? _____

Interest level in AAC devices ☐Minimal ☐Moderate ☐Significant

Please list the student's communication strengths, challenges, and any other significant factors that should be considered to determine AAC needs:

_____

_____

Is there any specific device(s) you would like us to consider? Why?

_____

_____

What do you hope this student will accomplish if provided with an AAC device?

Physical

Therapist _____ _____ _____

Therapist's Name Signature Date Prepared

☐**STUDENT DOES NOT REQUIRE ASSISTIVE TECHNOLOGY TO ACCESS THE CURRICULUM AT THIS TIME.**

Desk Accessibility:

☐Uses regular student desk ☐Uses adapted table ☐Uses wheelchair for desktop

Student's Name:

☐Has difficulty using table or desk ☐Lap Tray

Seating /Positioning:

☐Sits in regular chair with feet on the floor ☐Sits in regular chair with support under his/her feet

☐Sits in adapted chair ☐Sits in wheelchair

Motor abilities:

Student has voluntary, isolated, controlled movements using: (check all that apply)

☐Left hand ☐Left arm ☐Left leg ☐Left foot ☐Fingers

☐Right hand ☐Right arm ☐Right leg ☐Right foot ☐Eye brows

☐Eyes ☐Head ☐Mouth ☐Tongue ☐Other:
_____

Mobility: (Check all that apply)

☐Walks independently ☐Walks with assistance ☐Has difficulty walking

☐Difficulty walking up stairs ☐Difficulty walking down stairs ☐Needs extra time to reach destination

☐Uses manual wheelchair ☐Uses power wheelchair ☐Uses wheelchair for long distances only

Range of Motion:

Student has specific limitation to range: ☐Yes ☐No

If yes, describe the specific range in which the student has the most motor control:

_____

_____

Reflexes and Muscle Tone:

Student presents abnormal reflexes and/or abnormal muscle tone: ☐Yes ☐No

If yes, describe any abnormal reflex patterns or patterns of low or high muscle tone that might interfere with the students' voluntary motor control.

_____

_____

_____

_____

Student's Name:

Reliable Muscle Groups:

Describe muscle groups the student can use consistently accurately:

_____

_____

Please list the student's strengths, challenges, and any other significant factors that should be considered to determine assistive technology needs:

_____

_____

Occupational

Therapist _____ _____ _____
Therapist's Name Signature Date Prepared

Writing ability: Check all that apply

☐Writes with right hand
☐Writes with left hand
☐Holds regular pencil
☐Holds pencil adapted with:
☐Writing is slow and arduous
☐Prints letters
☐Prints words
☐Writes cursive
☐Writes independently and legibly _____
☐Writing is limited due to fatigue

Keyboarding ability: Check all that apply

☐Does not currently type
☐Types with one finger
☐Types with several fingers
☐Accidentally hits unwanted keys
☐Types with 10 fingers and correct hand position
☐Uses one hand
☐Uses two hands
☐Uses adapted/alternate keyboard (Please specify):
_____

Previous Strategies Implemented:

☐Slant Board ☐Books on Tape/CD ☐Spell Check
☐Adapted Paper ☐Organizational Techniques ☐Dictionary
☐Pencil Grip ☐Graphic Organizer ☐Accessibility option on computer
☐Past experiences with handwriting training/Instruction. If yes, Please specify
_____

Adaptive Equipment Experience:

☐Trackball ☐Head pointer ☐Switch ☐Touch screen ☐Joystick ☐Other_____

Attention:

☐Impulsive ☐Follows directions (1Step / Multistep)

Perceptual/Visual/ Motor:

☐Recommendation for developmental optometric evaluation ☐Yes ☐No

Student has perceptual motor difficulty? ☐Yes ☐No ☐Able to copy near ☐Able to copy far

Student's Name:

Describe the student's perceptual motor skills.

_____

_____

Sensory Issues:

☐Hypersensitivity to touch ☐Hyposensitivity to touch ☐Others, please specify _____

Please list the student's strengths, challenges, and any other significant factors that should be considered to determine assistive technology needs:

_____

_____

What other accommodation has the Occupational Therapist tried?

Please attach a writing sample

_____

_____

Expectations of Assistive Technology

How do you think assistive technology is expected to help this student?

☐Access to academics ☐Assist with spelling

☐Provide an efficient means of note taking ☐Assist with organization of school work

☐Improve quality of written work ☐Increase reading comprehension

☐Augment communication ☐Provide alternative mode of communication

☐Enable student to take tests and demonstrate what he/she knows

☐Other_____

_____

Additional comments or questions

Use this area to communicate additional comments or questions to the Evaluation Specialists who will be assigned to this evaluation process.

_____

_____

_____

_____

Parent Expectations for Assistive Technology

If this is a parent request, state below, parents' concerns and how parent believes assistive technology will help their child?

_____

_____

_____

Department of Education

Center for Assistive Technology
49-51 Chambers Street, Room 600
New York, NY 10007

Tel: 212 374-2156
Fax: 212 374-9435

Weekly Journal for Assistive Technology Equipment Trial

Date: _____

Name of Student: _____

Type of Device(s): _____

Name/Title person completing this form: _____

Please check the corresponding boxes regarding use of the trial equipment.
Thank you,

❑ Student uses device and/or software in class for assistance when presented with a required assignment, or to communicate effectively.

❑ Student uses device and/or software at home to complete writing assignments, or to communicate.

❑ Quality and quantity of written work or communication abilities has improved with the use of device and/or software. Please explain below.

❑ Student does not use device and/or software in school and/or at home. Please explain below.

Comments:

_____
_____
_____
_____
_____
_____
_____
_____

AT Definitions

Alternative Access/Input Device:
A tool that allows individuals to control their computers through means other than a standard keyboard or pointing device. Examples include alternative keyboards, electronic pointing device, sip-and-puff systems, wands and sticks, joysticks, and trackballs.

Alternative Keyboard:
Alternative keyboards may be different from standard keyboards in size, shape, layout, or function. They offer individuals with special needs greater efficiency, control, and comfort

Assistive Technology
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 the functional capabilities of a student with a disability. Such term does not include a medical device that is surgically implanted, or the replacement of such a device (200.1)

Assistive Technology Services:
Services include selecting, getting, or using assistive technology devices. This may include evaluation, customization, repair, maintenance, and training on how to use the device.

Augmentative and Alternative Communication (AAC)
A system that increases or improves communication of someone with a receptive or expressive communication impairment.

Communication Software - Software that provides expressive communication capability, either oral, written or manual.

Digitized Speech:
Human speech that is recorded onto an integrated circuit chip and which has the ability to be played back.

Direct selection
Activation of a letter, picture or other item by a single action. Pressing a key on a keyboard, eye gaze selection or use of an optical head pointer are examples of direct selection.

Dynamic display augmentative communication
Refers to a device or software that displays vocabulary as text and/or graphics on a screen and is able to be changed to another set of text and/or graphics electronically.

Definitions Continued

Eye gaze
A system by which an individual uses his or her eyes to indicate a choice or make a selection.

Free and Appropriate Public Education (FAPE)
The requirement under the Individuals with Disabilities Education Act (IDEA) entitles children with disabilities aged 3-21 to FAPE. "*Free Appropriate public education or FAPE means special education and related services that are provided at public expense, under public supervision and direction, and without charge… "(*34 CFR §300.17)

Individual Education Program (IEP)
A legal document developed by a team containing a special education student's present levels of educational performance, goals and objectives, special education and related services and placement for each school year.

Keyguard
A device that isolates each key on a keyboard (or AAC system), helping to guide the user to the appropriate key.

Large print
Written materials that are printed with a larger font size, usually 18 point font or larger.

Magnifier (magnification)
A device or software program that visually enlarges what is being looked at.

Moisture guard
Material or covering that is placed over an object to prevent liquid or saliva from entering. Typically, the material is transparent and molded to the shape of the object that is covered.

On Screen Keyboard
Software that allows a user to use a mouse, touch screen or switch to enter all the characters and functions of a keyboard.

Scanning
A form of indirect selection in which the selection set or choices are visually highlighted and/or auditorily presented in programmed rates and patterns, with an individual making a choice by activating a switch.

Static displays
Have fixed selection sets or levels that can be manually changed.

Definition Continued

Switch
A device that enables an individual to control a computer or electronic device. Causes an electric current or appliance to begin or cease operation.

Synthesized speech
Computer-generated simulation of human speech.

Text-to-speech
Programs or devices that convert typed text into computer-generated speech.

Voice output software
Software that converts the information (text and graphic) on a computer screen into synthesized speech (computer-generated speech).

Voice Recognition
Voice Recognition allows a user to use his/her voice as an input device. Voice recognition may be used to dictate text into the computer or to give commands to the computer (such as opening application programs, pulling down menus, or saving work). Continuous speech voice recognition applications allow a user to dictate text fluently into the computer.

Word prediction
Spelling/typing assistance that displays stored words based on the previous word entered. When the desired word appears, the user can select the word from the list and the word will be typed out.

Frequently Asked Questions

Who is the school contact person?
This person is listed on the first page of the Assistive Technology Evaluation Referral and is the one who coordinates all aspects of the evaluation procedures at the school level. This includes inviting the parent and school staff to the evaluation, securing a meeting room and maintaining all documentation for the school records. The school contact person is designated by the school.

How is AT documented on the IEP?
*A recommendation for **AT devices** must be documented on the student's IEP as follows:*

- *check "Assistive Technology" box and*
- *list type of AT under Health/Physical Management Needs.*

If the IEP team recommends **AT services,** it must be documented on page five of the student's IEP as follows:

- *check "Assistive Technology Services" box and*
- *list under Health/Physical Management Needs, the number of hours and who will receive the training.*

Is the AT supposed to be for home use?
This is determined by the IEP team on a case-by-case basis depending upon the needs of the student.

Can another AT evaluation be requested because the equipment is outdated?
If the current AT no longer meets the needs of the student, then the IEP team can reconvene and make a determination of what will be appropriate for the student. If the IEP team cannot make a determination, then they can follow the referral procedures outlined in this guide. **Note: While AT equipment currently being used may not be the latest model available, if it still allows the student to access the curriculum, then it is deemed appropriate for the student**.

How long will a student keep a device after it's recommended?
The AT will follow the student until he/she no longer warrants AT and its' use is terminated on the IEP, or until he/she leaves the Department of Education's system. At this time, the AT is returned to the ISC/CSE of last attendance.

Who recommends chairs and other positioning equipment?
The on-site Occupational and Physical Therapists are the first resource to provide assessments for positioning aids. If on-site OTs or PTs are unavailable, you may contact the OT/PT supervisors at the ISCs.

References

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