Shasta County Office of Education Local Plan Area

Special Education Assistive Technology Guidelines

Introduction

The Shasta County SELPA Assistive Technology Guidelines are developed as a way to help support districts in following Individuals with Disabilities Education Act (IDEA) laws and regulations. They are designed to help district Individual Education Program (IEP) team members with consideration, evaluation, planning, and implementation with regards to students assistive technology needs in order to benefit from special education instruction and/or related services.

Laws and Regulations

The amendments to the Individuals with Disabilities Education Act (IDEA) require that the Individualized Education Program (IEP) team consider whether a special education child requires assistive technology and services (20 U.S.C. Section 1414[d] [3] [B] [v]). Furthermore, California's Education Code (EC) Section 56341.1(a)(5) states: "When developing each pupil's individualized education program, the individualized education program team shall consider… whether the pupil requires assistive technology devices and services as defined in paragraphs (1) and (2) of section 1401 of Title 20 of the United States Code."

IDEA (20 U.S.C. Section 1401) includes the following definitions:

1. Assistive Technology Device: 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. Assistive Technology Service: 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. Such term includes:
    a. The evaluation of the needs of such child, including a functional evaluation of the child in the child's customary environment.
    b. Purchasing, leasing, or otherwise providing for the acquisition of assistive technology devices by such child;
    c. Selecting, designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing of assistive technology devices;
    d. Coordinating and using other therapies, interventions, or services with assistive technology devices, such as those associated with existing education and rehabilitation plans and programs;
    e. Training or technical assistance for such child, or, when appropriate, the family of such need; and
    f. Training or technical assistance for professionals (including individuals providing education and rehabilitation services) to, employ, or otherwise substantially involved in the major life functions of such child

According to Code of Federal Regulations (34 CRF 300.105), each public agency must ensure that assistive technology devices or assistive technology services, or both, as those terms are defined in §300.5 and 300.6, respectively, are made available to a child with a disability if required as part of the child's –

1. Special education under § 300.36;
2. Related services under § 300.341; or
3. Supplementary aids and services under §§ 300.38 and 300.114(a)(2)(ii).

On a case by case basis, the use of school-purchased assistive technology devices in a child's home or in other settings is required if the child's IEP team determines that the child needs access to those devices in order to receive FAPE. (Authority: 20 U.S.C. 1412(a)(1), 1412(a)(12)(B)(i))

Assistive Technology Process

Every IEP team needs to consider each student's need for assistive technology (AT) devices and/or services. To do this effectively, at least one member of the team needs to have some knowledge about assistive technology. This knowledge base can be gained by reviewing these guidelines, researching available resources, and/or obtaining specialized training in assistive technology.

Parts of the following Assistive Technology Process were adapted from the article, *"Has technology been considered? A guide for IEP Teams"* written by A. C. Chambers and published by CASE in 1997. Other resources utilized are from the Georgia Project for Assistive Technology (GPAT) and Wisconsin Assistive Technology Initiative (WATI). *Guidelines have been adapted with permission from Riverside County SELPA.*

Step 1

- Through evaluation and IEP team meeting, determine the student meets special education eligibility criteria and identify disability condition(s)
- Review the student's present levels of performance
- Develop annual goals, with benchmark objectives as appropriate
- Based on evaluation results and/or observations, determine what special factors need to be considered
    - If the IEP Team determines (1) **no** AT devices and/or services **and** (2) **no** low incidence services, equipment and/or materials are needed, complete the IEP process
    - If the IEP Team determines (1) AT devices and/or services **or** (2) low incidence services, equipment and/or materials are needed, move to Step 2

Step 2

- Consult with colleagues and the District Office to determine need to expand IEP team members to include special education director/coordinator, nurse, occupational therapist, speech pathologist, program specialist, and/or outside agencies, such as California Children's Services prior to scheduling the meeting.
- Utilize the **Assistive Technology Consideration Resource Guide** (Appendix 1) to help identify strategies to meet the student's AT needs.
- Prior to or during the IEP Team meeting, complete the **Assistive Technology Consideration Worksheet** (Appendix 2) to:
    - Identify task(s) you want the student to do, that s/he is unable to do at a level that reflects his/her skills/abilities, leaving blank any tasks which are not relevant to the student's IEP
    - Identify special strategies or accommodations the student uses to complete task(s)
    - Describe available assistive technology (either devices, tools, hardware, or software) that could be used to address this task(s)
    - Describe new or additional assistive technology to be tried
- Transfer IEP team decisions documented on the worksheet to the student's IEP (Special Factors and/or Services page)
    - If information is sufficient, implement IEP as written
    - If more information is needed, implement IEP as written and move to Step 3

Step 3

- Consult with district special education director/coordinator about who will conduct assistive technology evaluation
- Initiate Prior Written Notice and Assessment Plan to parent/ed rights holder
- Give referral to appropriate assessment personnel
- Assessment Personnel
    - Review the Shasta County SELPA Special Education Assistive Technology Guidelines
    - Review student's records
    - Consult with IEP Team members
    - Observe student in appropriate setting
    - Conduct needed evaluation using appropriate tools, instruments, strategies
    - Write evaluation report, providing a copy to all IEP Team members (including parent)
- Schedule/hold IEP Team meeting to discuss results of the AT Evaluation
- Complete **Assistive Technology Report Summary and Implementation Plan** (Appendix 3)
- Attach completed form to the IEP **and** document team decisions on IEP Special Factors and/or Services pages
- Provide a copy of the IEP to all personnel serving the student and the parent; place a copy in the student's confidential file
- Implement the IEP as written

Step 4

- If necessary, order any required AT device, monitor receipt, and deliver to student ASAP –Document on the **Assistive Technology Implementation Plan**
- If necessary, provide any required training to the student, family, and or school personnel ASAP – Document on the **Assistive Technology Implementation Plan**
- Implement direct AT support services as written in IEP
- Monitor the student's use of the assistive technology device and/or services via
    - **Assistive Technology Implementation Plan**
    - Progress reports
    - Annual review
    - Triennial reevaluation
- Initiate the AT consideration, evaluation, IEP team meeting and implementation phases as needed

Consideration Phase

It's important that members of the IEP team recognize that technology is just one strategy in a multi-faceted approach in addressing the needs and strengths of students with disabilities. IEP teams will therefore need to balance the degree of technology assistance with student's learning potential, motivation, chronological age, developmental level and goals/objectives. Options to consider include:

Low Tech: Equipment and other supports readily available in schools, including off-the-shelf items to accommodate the needs of students, which can be provided by general and/or special education through Student Study Team (SST) documents, a Section 504 Accommodation Plan, and/or IEP processes (e.g. calculators, tape, recorder, pencil grip, and larger pencils).

High Tech: Supports for students who may need more specialized equipment and support services beyond basic assistive technology; often students with low incidence and/or significant/severe disabilities, who require more in-depth assessment (e.g. closed circuit television (CCTV), FM systems, augmentative communication devices, sound field systems, alternative computer access, and specialized software).

It is important to consider and use the technology resources purchased with state and federal technology funds for **all** students (e.g. computers, basic software) to determine if the standardized materials available in the classroom can meet the child's needs. Students with a low incidence disability (deaf, blind, deaf-blind, orthopedic impairment) generate additional funds at the December 1 pupil count specifically for the potential need for specialized or assistive technology devices. If Medi-Cal funds are collected for assessment and/or services for special education students, the Medi-Cal Collaborative is another potential source of funding approval. Some specialized equipment and/or assistive technology devices may be provided by California Children's Services (CCS) but that authority rests with them, not the IEP team. In all instances where additional expenditures may result from the IEP team consideration, it is important to consult with the Special Education Office of your school district prior to completing the AT evaluation and IEP process to minimize any delays in purchasing.

Every IEP team is required to "consider" the child's needs for assistive technology devices and/or services for every child in special education, as part of the Special Factors requirement in IDEA '04. When considering a child's needs for AT, there are only four general conclusions that can be reached:

1. The first is that current interventions (whatever they may be) are working and nothing new is needed, including AT.
2. The second possibility is that AT is already being used (or there is a trial with AT) so that we know that it does work. In that case the IEP team should write the specific AT into the IEP to ensure that it continues to be available for the child.
3. The third possibility is that the IEP team may conclude that new AT should be tried. In that case, the type of AT to be tried needs to be described in the IEP.
4. The last possibility is that the IEP team will find that they do not know enough to make a decision. In this case, they will need to gather more information. That could be a simple process of calling someone for help, or gathering resources to help them better "consider" what AT might be useful. It could also be an indication that the need to make a referral for an evaluation of the child's need for assistive technology.

To help IEP teams determine needs, the Georgia Project for Assistive Technology (GPAT) Assistive Technology Consideration Resource Guide is included herein as Appendix 1. This resource guide lists samples of functional tasks required in schools such as writing, reading, etc. and provides examples of common standard classroom tools, modifications, and accommodations of tasks and expectations, and possible AT solutions. This framework if often useful for team members to use to get started in the consideration process and/or as a resource for making recommendations prior to or after the evaluation phase. GPAT also has an online version of this form that has video links that provide additional information about classes of AT tools. You can find this information at http://www.gpat.org

The Shasta County SELPA has adapted the Riverside County SELPA and Wisconsin Assistive Technology Initiative (WATI) Assistive Technology Consideration Guide into a worksheet format (Appendix 2) to help the IEP team through a series of activities designed to help them determine whether the student does or does not "need" assistive technology devices or services. Those activities are:

1. Identification of the task(s) we want the student to do, that s/he is unable to do at a level that reflects his/her skills/abilities, leaving blank any tasks which are not relevant to the student's IEP.
2. Identification of special strategies or accommodations the student uses to complete tasks.
3. Description of available assistive technology (either devices, tools, hardware, or software) that could be used to address this task(s).
4. Description of new or additional assistive technology to be tried. It is recommended that the IEP team utilize the Assistive Technology Consideration Resource Guide to complete this section.
5. Transfer of IEP team decisions onto the student's IEP (Special Factors and/or Services pages) and/or initiation of Prior Written Notice and an Assessment Plan.

Evaluation Phase

Assistive technology is a tool for access (e.g. school environment, core curriculum) and for independence (e.g. communication, mobility) and will therefore change as the student's needs change and as technology continues to change. The need for AT should therefore be an integral part of a comprehensive assessment for students with disabilities in all areas related to their disabilities, as appropriate, for each student and must be considered by the IEP team, based upon the student' s assessed needs and strengths. It is important to use a collaborative school-based team approach in education settings for assessment, planning, and provision of needed AT, which includes individuals who are knowledgeable about the student's disabilities, needs and strengths in the area of AT.

Quality Indicators for Assessment of AT Needs

The following Quality Indicators for Assessment of Assistive Technology is from the QIAT website http://www.qiat.org

Quality Indicators for Assessment of Assistive Technology Needs is a process conducted by a team, used to identify tools and strategies to address a student's specific need(s). The issues that lead to an AT assessment may be very simple and quickly answered or more complex and challenging. Assessment takes place when these issues are beyond the scope of the problem solving that occurs as a part of normal service delivery.

1. Procedures for all aspects of assistive technology assessment are clearly defined and consistently applied.

   Intent: Throughout the educational agency, personnel are well-informed and trained about assessment procedures and how to initiate them. There is consistency throughout the agency in the conducting of assistive technology assessments. Procedures may include–but are not limited to–initiating an assessment, planning and conducting an assessment, conducting trials, reporting results, and resolving conflicts.

2. Assistive technology assessments are conducted by a team with the collective knowledge and skills needed to determine possible assistive technology solutions that address the needs and abilities of the student, demands of the customary environments, educational goals, and related activities.

   Intent: Team membership is flexible and varies according to the knowledge and skills needed to address student needs. The student and family are active team members. Various team members bring different information and strengths to the assessment process.

3. All assistive technology assessments include a functional assessment in the student's customary environments, such as the classroom, lunchroom, playground, home, community setting, or work place.

Intent: The assessment process includes activities that occur in the student's current or anticipated environments because characteristics and demands in each may vary. Team members work together to gather specific data and relevant information in identified environments to contribute to assessment decisions.

4. Assistive technology assessments, including needed trials, are completed within reasonable time lines.

   Intent: Assessments are initiated in a timely fashion and proceed according to a timeline that the IEP team determines to be reasonable based on the complexity of student needs and assessment questions. Timelines comply with applicable state and agency requirements.

5. Recommendations from assistive technology assessments are based on data about the student, environments and tasks.

   Intent: The assessment includes information about the student's needs and abilities, demands of various environments, educational tasks, and objectives. Data may be gathered from sources such as student performance records, results of experimental trials, direct observation, interviews with students or significant others, and anecdotal records.

6. The assessment provides the IEP team with clearly documented recommendations that guide decisions about the selection, acquisition, and use of assistive technology devices and services.

   Intent: A written rationale is provided for any recommendations that are made. Recommendations may include assessment activities and results, suggested devices and alternative ways of addressing needs, services required by the student and others, and suggested strategies for implementation and use.

7. Assistive technology needs are reassessed any time changes in the student, the environments and/or the tasks result in the student's needs not being met with current devices and/or services.

   Intent: An assistive technology assessment is available any time it is needed due to changes that have affected the student. The assessment can be requested by the parent or any other member of the IEP team.

Without standardized assessment practices, the following common errors may occur:

1. Procedures for conducting AT assessment are not defined, or are not customized to meet the student's needs.
2. A team approach to assessment is not utilized.
3. Individuals participating in an assessment do not have the skills necessary to conduct the assessment, and do not seek additional help.
4. Team members do not have adequate time to conduct assessment processes, including necessary trials with AT.
5. Communication between team members is not clear.
6. The student is not involved in the assessment process.
7. When the assessment is conducted by any team other than the student's IEP team, the needs of the student or expectations for the assessment are not communicated.

Evaluation Report

As with any evaluation, the personnel who assess the pupil shall prepare a written report, or reports, as appropriate, of the results of each assessment. A copy of the assessment report and documentation of determination of eligibility shall be given to the parent or guardian (EC 56329 (a)). If an assistive technology evaluation is completed by an outside agency, whether initiated by the district or parent, the IEP team must consider the results of the independent educational evaluation. If an assistive technology evaluation is completed by school personnel, the following evaluation report components are recommended.

- Demographic information
- Reason for referral
- Background information, including educationally relevant health-development medical findings (if any), school history, and documented interventions
- Eligibility for special education services, including handicapping condition and basis for making the determination that the pupil needs special education and/or related services; for pupils with learning disabilities, whether there is such a discrepancy between achievement and ability that it cannot be corrected without special education services
- Relevant behavior noted during the observation of the pupil in an appropriate setting and the relationship of that behavior to the pupil's academic and social functioning
- Present levels of performance in adaptive behavior functioning, academic achievement levels, cognitive abilities, psychological processing areas, emotional behavioral functioning, language/communication skills, and career/vocational (as appropriate)
- A determination concerning the effects of environmental, cultural, or economic disadvantage (when appropriate)
- Results of tests administered, including statements regarding validity of the assessments and whether test results are valid
- For pupils with low incidence disabilities, recommendations regarding the need for specialized services, materials, and equipment
- Recommendations regarding strategies, accommodations and/or modifications, and assistive technology devices or service the child may need to progress and be involved in the general education curriculum and/or setting based the assessment results
- The name(s) and title/position(s) of the person(s) who assisted in compiling the report

<u>IEP Team Meeting and Implementation Phase</u>

Once the evaluation is complete, a report is written to clarify determination of need for assistive technology devices and/or services and an IEP team meeting is scheduled. It is critical that the IEP team document needs, devices, and services as described below. To facilitate communication, the team may use the report summary and implementation plan (Appendix 3). This plan has been adapted from Riverside County SELPA documents.

Documenting Needs, Device, and Services

Going through the consideration and evaluation phases described herein helps the IEP team determine what the child's needs are as related to assistive technology devices and/or services. The term "assistive technology device" means any item, piece of equipment or product system that is used to increase, maintain, or improve functional capabilities of a child with a disability. 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. Explanations of each component to consider are included herein.

Evaluation
When the referral and/or IEP team is in the process of developing an assessment plan to evaluate all areas of suspected disability is the appropriate time to determine is information on hand is sufficient to consider the student's need for assistive technology or is a more in depth functional evaluation of the child in her/her customary environment is needed. When a need for assistive device and/or service is suspected, it is recommended that the team members follow the consideration, evaluation, and IEP team planning and implementation phases delineated herein. Since evaluation is an ongoing process, the team will need to determine and document if or when a follow-up formal evaluation will need to be conducted (i.e. annual evaluation, triennial review).

Providing Device
The purchasing, leasing, or otherwise providing for the acquisition of the assistive technology devices for the student is typically a one-time event. The specific device(s) must be listed on the IEP Special Factors page and provided as soon as possible. If the device is not readily available, a "loaner" may be assigned temporarily and/or a timeline for ordering and receiving the device should be noted. If needed, a member of the team should be designated to complete any necessary ordering form, submit it to the district's Special Education office, monitor its delivery, and notify IEP team members of its receipt. The assistive technology devices are the property of the school district/Shasta County Office of Education, unless leased by agreement by the district/SCOE.

Monitoring
The IEP team needs to discuss who will be responsible for designing, fitting, customizing, adapting, applying, maintaining, repairing, or replacing the assistive technology device. Some low-tech materials (i.e. pencil grip) may be easily managed by the case carrier while other high-tech materials (i.e. FM system) may need to be monitored by a specialist. If such monitoring is needed (i.e. DHH Itinerant Support), it must be noted on the IEP Services page under supplementary aide and services provided to the child or on behalf of the child.

Coordinating Services
In planning how the AT device and/or service will be implemented, it is important for the team to discuss how they will be coordinated with other therapies, interventions, or services so that the child's daily use of the device or periodic service are understood by all team members and others as appropriate.

Training
The law requires that the IEP team consider needs for training or technical assistance for the student, or, when appropriate, the family of the child, and for the professionals providing educational support, rehabilitation services, or otherwise substantially involved in the major life functions of the student. Sometimes the producers of assistive technology devices provide training and other times this may fall to school or contracted personnel to provide. If such training is needed, it must be noted on the IEP Services page under supplementary aids and services provided to the child or on behalf of the child. A member of the IEP team should be designated to monitor the provision of necessary training components.

Progress Monitoring
It is important to discuss how progress will be monitored. The use and benefits of the AT device or service may be informally reviewed when progress toward goals is reported. If adequate progress is being made, a more formal discussion may be held at the annual review IEP team meeting. As the triennial review approaches, the team will need to determine if they need to go through the consideration and/or evaluation phases again.

Appendices

Assistive Technology Consideration Resource Guide (Appendix 1)

Assistive Technology Consideration Worksheet (Appendix 2)

Assistive Technology Report Summary and Implementation Plan (Appendix 3)

Assistive Technology Consideration Resource Guide*

The following information is provided to assist educational teams in considering assistive technology in the development, review, and/or revision of a student's Individualized Education Program. This document provides a framework for identifying relevant tasks within instructional areas as well as appropriate accommodations, modifications, and technology solutions.

Instructional or Access Area	Standard Tools	Modifications and Accommodations of Task and Expectations	Assistive Technology Solutions
Writing: Sample Tasks: • Write name • Copy letters/words/numbers for skills practice • Write words from memory • Copy print from book or worksheet • Copy notes from board or overhead • Complete written worksheets with single word responses (fill-in-the blank) • Complete written worksheets with phrase or sentence response • Complete written test with multiple choice response (circle/mark answer) • Complete written test and forms with fill-in-the-blank response • Complete written test with matching response • Complete written test with phrase/sentence (short answer) • Complete written test with essay response (multi-paragraph) • Record notes from teacher dictation/lecture with teacher recording notes on board/overhead • Record notes from teacher dictation/lecture without teacher notes	• Crayon/Marker • Pencil • Pen • Letter and number strip • Clipboard • Typewriter • Computer with word processing software with grammar and spell checker • Instructional software to remediate and enhance specific writing skills	• Increased time for completing assignments • Decreased length of assignment/number of responses • Oral dictation as an alternative to writing • Peer notetaker • Format of assignment changed to meet need of student - multiple choice, matching word banks, fill-in-the-blank, short answer • Word banks, sentence starters, and cloze format writing activities for supports • Provide typed outline or typed copy of lecture notes to student prior to delivery for student to use to follow lecture • Student highlights key points on printed copy of notes rather than copying/recording lecture notes • Webbing-concept mapping strategy used	• Pencil grip or other adapted writing aids • Adapted paper (bold line, raised line, different spacing, secured to desk, paper stabilizers) • Slant board • Personal dry erase board • Non-slip writing surface (e.g. dyceum) • Tape recorder for dictated responses and note-taking • Portable word processor (e.g. PC-5, AlphaSmart, etc.) • Note-taking device (e.g. Braille, adapted tape recorder, smartboard) • Computer with word processing software with spell and grammar checks (e.g. Microsoft Word) • Computer with word processing software and outlining/webbing software (e.g. Inspiration or Kidspiration, DraftBuilder) • Computer with graphic-based word processor (e.g. Writing with Symbols) • Computer with talking word processing software (e.g. Write OutLoud, IntelliTalk) • Computer with word prediction software (e.g. Co:Writer) • Computer with graphic based word processor (e.g. Writing with Symbols) • Scanner and computer with form filling software to create electronic worksheets

Instructional or Access Area	Standard Tools	Modifications and Accommodations of Task and Expectations	Assistive Technology Solutions
Writing Sample Tasks (continued): • Generate creative/spontaneous writing samples • Copy numbers • Enter number in correct location within calculation problems • Copy math calculation problems with correct alignment • Record dictated math calculation problems with correct alignment • Copy diagrams and graphs create and plot linear and quadratic equations on graph	• See previous page	• See previous page	• See previous page *Adaptive input hardware and/or software (e.g. keyguard, keyboard utilities, enlarged keyboard, touchscreen, on-screen keyboard, trackball, switch access, voice dictation software, Braille input) and adaptive output solutions (screen enlargement, text or screen reading software) to be used as needed for all computer based writing solutions
Spelling: Sample Tasks: • Identify correctly spelled word from printed list • Write spelling words from dictation • Spell words orally • Take a written spelling test • Use spelling words appropriately in a sentence • Locate correctly spelled words in a dictionary • Complete writing tasks with correct spelling • Identify/correct incorrectly spelled words in writing sample	• Flashcards • Alphabet strip • Print dictionary • Computer with word processing software with built-in spell checker • Instructional software to remediate and enhance basic phonics and spelling skills	• Peer/adult assistance for difficult to spell words • Personal or custom dictionary • Problem word list • Reduce number of spelling words • Increased time for completing assignments	• Personal dry erase board for practice • Tape recorder with difficult to spell words recorded • Hand-held spellchecker without auditory output (e.g. Merriam-Webster Dictionary and Thesaurus) • Hand-held spellchecker with auditory output (e.g. Speaking Merriam-Webster Dictionary and Thesaurus) • Portable word processor with built-in spellchecker (e.g. AlphaSmart) • Computer with word processing program with spell check feature (e.g. Microsoft Word) • Computer with talking word processing software containing speaking spell check (e.g. Write OutLoud) • Computer with word prediction software, (e.g. Co:Writer)

Instructional or Access Area	Standard Tools	Modifications and Accommodations of Task and Expectations	Assistive Technology Solutions
Reading: Sample Tasks: • Identify letters in isolation and in sequence • Recognize/read name • Read basic/primer sight words • Read functional words (community, emergency, grocery, etc.) • Read target/selected words within a sentence • Comprehend age/grade appropriate reading materials • Read print materials from textbooks and supplemental materials with comprehension • Read material from worksheet with comprehension • Read material from board/overhead with comprehension • Read material from computer display with comprehension • Read longer reading samples with comprehension and without fatigue • Answer literal questions regarding materials read • Answer questions regarding main idea of materials read • Answer inferential questions regarding materials read	• Textbooks • Worksheets • Printed information on board/overhead • Printed test materials • Instructional software to remediate basic reading and/or reading comprehension skills	• Peer/adult reading assistance • High interest, low reading level materials • Increased time for completing reading materials • Decreased length of assignment • Simplify complexity of text • Color coding to emphasize key points (highlighting) • Custom vocabulary list Increase print size of materials through photocopying	• Page fluffers • Slant board and book holders for positioning books • Color Overlays • Tracking strategies (e.g. reading window, bar magnifier) • Speaking spellchecker or dictionary as a word recognition aid(e.g. Speaking Merriam-Webster Dictionary and Thesaurus) • Reading Pen (e.g. Quicktionary Reading pen) • Audio-taped books (e.g.books-on-tape from Recordings for the Blind and Dyslexic) • Electronic books (e.g. disk or CD-ROM) • Computer-based talking word processing program (e.g. Write OutLoud) • Computer with graphic word processor (e.g. Writing with Symbols) • Computer with text enlargement software (e.g. ZoomText) • Computer with text reading software (e.g. ReadPlease, Talk-to-Me, JAWS, Kurzweil 1000) • Computer-based advanced reading aids (e.g. Kurzweil 3000, WYNN) • Solutions for converting text into alternative format (e.g. scanner with OCR software, Braille translation software, Braille printer/embosser, refreshable Braille displays, and tactile graphic production systems, etc.)

Instructional or Access Area	Standard Tools	Modifications and Accommodations of Task and Expectations	Assistive Technology Solutions
Math: Sample Tasks: • Identify numbers in isolation and sequence • Comprehend basic math concepts • Complete basic calculations (addition, subtraction, multiplication, and division) • Complete complex math calculations • Complete math word problems • Tell time to the hour, half-hour, etc. using an analog and/or digital clock • Calculate passage of time • Identify coins and bills • Demonstrates understanding of coin and bill value • Utilize money to purchase items • Utilize coins and bills to make appropriate change • Maintain and balance a checkbook	• Manipulatives (beads, etc.) • Abacus • Number line • Math fact sheet (e.g. multiplication facts) • Calculator • Instructional software to remediate and enhance specific math skills	• Change format of assignment (e.g.: write answers only) • Peer/adult reading of problem and recording of answer • Reduce number of problems • Provide additional spacing between problems • Provide additional time to complete tasks • Increase size of print through photocopying • Change complexity of material (e.g. separate problems by operations required) • Teacher/peer support for reading and assistance	• Modified paper (bold line, enlarged, raised line, graph paper, etc.) • Talking calculator with speech output • Calculator with large print display • Calculator with large keypad • Calculator with embossed output (e.g. Braille N Speak) • Computer based on-screen calculator • Electronic math worksheet software with adaptive input and output as needed (e.g. MathPad, Access to Math, and Study Works) • Adapted measuring devices (e.g. devices with speech output, large print display, or tactile output)
Study Organizational Skills: Sample Tasks: • Copy assignments from board • Record assignments from teacher dictation • Complete assigned task within designated timelines • Request teacher/peer assistance when needed • Has appropriate materials/supplies for class activities	• Instructional materials, including software to remediate deficit areas, to teach compensation strategies, and focus on strengths	• Assignment sheet provided by peer and/or adult • Outlines of key points • Student schedule or checklist • Positioning student strategically within classroom environment • Timers • Student self monitoring sheets	• Print or picture schedule • Organizational aids (e.g. Color coding, appointment book, etc.) • Tape recorder • Electronic organizer/personal digital assistant (e.g. Step Pad, PalmPilot) • Computer based electronic organizer with adapted input and output provided as needed • Speech prompting device

Instructional or Access Area	Standard Tools	Modifications and Accommodations of Task and Expectations	Assistive Technology Solutions
Listening : Sample Tasks: • Follow verbal directions • Listen to stories, books, etc. and answer comprehension questions • Listen to classroom discussion and apply information (answer questions, record notes, etc) • Listen to teacher lecture and apply information (answer questions, record notes, etc) • Listen to verbally presented information and retell with correct sequencing and facts • Listen to videos to gather information about current instructional topics • Respond to environmental stimuli appropriately (someone knocking on classroom door, bell ringing, fire alarm)	• Television • Video player • Cassette recorder/player • Headphones for clarity of sound and blocking of extraneous noises for cassette/ television • Overhead projector to provide visual outline during note-taking • Closed captioning access to caption ready television and video presentations	• Preferential seating • Use teacher proximity • Elimination of extraneous noise (air conditioner) • Break directions into smaller steps/segments • Use verbal prompts • Use gestures • Pre-teach vocabulary and/or components of the lesson • Audio-tape verbally presented information for repeated presentation • Use visual aids (picture symbols, diagrams, maps) to illustrate key points • Provide a written outline of lecture • Use a peer note-taker to record notes in class • Provide print copy of script in videotapes • Provide sign language/oral interpreter	• Personal amplification system • Classroom sound field system • Auditory trainer • Personal hearing aids • Tape recorder with indexing capability • Smart Board for transferring teacher written notes to student computer for viewing and printing and viewing • Environmental alert system • Voice to text software application for converting teacher lecture to text • Closed captioning on non-caption ready instructional materials • Real time captioning of class lecture and discussion
Oral Communication: Sample Tasks: • Gain attention of peers/adults within environment • Express basic wants/needs • Request assistance as needed • Provide appropriate greetings • Participate in conversation with peers/teachers • Respond appropriately to teacher/peer questions and/or comments • Provide oral report in class on assigned topic • Inform others of events, topics, etc • Terminate conversation	• Organizing diagram for presentations	• Interpreter • Verbal prompts • Modeling appropriate skills • Repetition of spoken answers • Additional response time • Provide questions before time • Accepting shortened responses	• Speech enhancing devices (e.g. amplifiers, clarifiers) • Augmentative communication solutions (e.g. object based communication displays, picture communication boards, books, and wallets, talking switches, dedicated augmentative communication devices, and integrated computer based augmentative communication solutions-all with adaptive input as needed) • Sign language

Instructional or Access Area	Standard Tools	Modifications and Accommodations of Task and Expectations	Assistive Technology Solutions
Aids to Daily Living: Sample Tasks: • Feed self using appropriate utensils • Drink using appropriate utensils • Prepare simple snack • Prepare basic meal • Dress and/or undress self using appropriate tools • Complete personal hygiene and grooming tasks (brushing teeth, hair, etc.) • Toilet self • Perform simple household chores	• Eating utensils (e.g. spoon, cup, etc.) • Personal hygiene tools (ex: toothbrush, comb, brush, etc.) • Toileting supplies (ex: tissue) • Bathroom rails and adaptive faucet handles • Cleaning materials and appliances	• Verbal prompts • Modeling appropriate skills • Picture cures and prompts • Additional time to complete tasks • Modification of task length and complexity	• Adapted eating aids (e.g. grips for standard eating utensils, adapted cups/glasses, etc.) Feeding machines • Adapted dressing aids (e.g. button holers, pulls for zippers, Velcro fasteners, etc.) • Adapted cooking and food preparation aids (e.g. blender attached to power control unit, adapted pouring handles, etc.) • See other sections of this document for leisure, vocational, mobility, and learning aids.) • Adapted household cleaning tools and appliances
Recreation and Leisure: Sample Tasks: • Participate in play activities • Participate in leisure activities (ex: look at/read book or magazine, listen to music, etc.) appropriately • Manipulate and/or operate toys, tools, and/or electronic appliances required for participation in leisure activities appropriately	• Puzzles • Games • Toys • Music (e.g. tape player, CDROM, etc.)	• Verbal prompts • Adult peer assistance • Modeling appropriate skills • Cooperative participation with • Game modification	• Knobs for puzzles • Adapted crayon holders • Adapted books • Adapted music with symbols • Raised line coloring sheets • Spinners for games • Switch accessible toys (commercially available or switch accessible through switch interface) • Environmental control devices • Power control units and battery adapter devices • Adaptive sports equipment • Computers with adaptive input devices as needed and appropriate software to address leisure skills

Instructional or Access Area	Standard Tools	Modifications and Accommodations of Task and Expectations	Assistive Technology Solutions
Pre-vocational and Vocational: Sample Tasks: • Complete assigned tasks (ex: filing, sorting, assembly, etc.) within designated timelines • Utilize tools, manipulatives, and/or equipment to complete tasks • Complete single and multiple step tasks	• Sorting and assembling materials • Office equipment • Computer with standard office applications • Timers and watches	• Verbal prompts • Picture and word cues • Modeling appropriate skills • Cooperative participation with peers and adults • Student self-monitoring sheets • Modification of task length and complexity	• Individualized task and material modifications to meet student needs • Computer with adaptive input devices as needed and appropriate software to address pre-vocational or vocational needs • Vibrating and talking watches and timers • Auditory prompting with and without visual display
Seating, Positioning, and Mobility: Sample Tasks: • Move about/ambulate about the classroom, school, and/or community • Manipulate educational materials as required in assigned activities • Maintain appropriate seating/ position for participation in relevant activities	• Classroom chairs, desks and tables	• Limit mobility requirements through careful scheduling of daily activities (order, location, etc.) • Peer and adult assistance • Modification of requirements based upon student's daily energy level and the task to be completed	• Adaptive classroom equipment (e.g. prone and supine standers, side lyers, adapted chairs with seating modifications and support, etc.) • Adapted tables and desks • Walkers • Crutches/canes • Manual wheelchairs • Power wheelchairs • Laptrays and equipment mounts

Appendix 2

Assistive Technology Consideration Worksheet*

Name:_____Birthdate:_____Grade:_____School:_____District: _____

1. Check each task area of concern (student is unable to do at a level that reflects his/her skills/abilities) and leave blank any task areas which are not of relevant concern for the student.
2. For each checked area, in Column A describe special strategies or accommodations the student currently uses to complete task.
3. For each checked area, in Column B describe any assistive technology tools currently being used.
4. For each checked area, in Column C describe new or additional assistive technology to be tried. This may include evaluation, device, and/or service. For ideas, see the Assistive Technology Consideration Resource Guide

Tasks:	A. If currently completes task with special strategies/accommodations, describe.	B. If currently completes task with assistive technology tools, describe.	C. Describe new or additional assistive technology to be tried.
❒ Mechanics of Writing			
❒ Computer Access			
❒ Composing Written Material			
❒ Communication			
❒ Reading			
❒ Learning/ Studying			

Tasks:	A. If currently completes task with special strategies/accommodations, describe.	B. If currently completes task with assistive technology tools, describe.	C. Describe new or additional assistive technology to be tried.
❒ Math			
❒ Recreation & Leisure			
❒ Activities of Daily Living (ADLs)			
❒ Mobility			
❒ Environmental Control			
❒ Positioning & Seating			
❒ Vision			
❒ Hearing			

5. Transfer necessary data to the IEP Special Factors and/or Services pages. If appropriate, initiate Prior Written Notice and Assessment Plan.

Shasta County Special Education Local Plan Area

(Adapted from Riverside County SELPA)

Assistive Technology Report Summary and Implementation Plan

Name:_____ DOB:_____ Grade:_____

School:_____ District:_____

Report Summary:

Disability(ies): _____

Current Special Education and Related Service(s): _____

Area(s) of Concern (task/activity the pupil is unable to do at a level that reflectsskills/abilities):

_____

Assistive Technology Accommodations, Strategies, and/or Tools Tried as Intervention:

_____

Observations: _____

Summary of Assistive Technology Evaluation Results: _____

_____

_____

Implementation Plan:

1. Evaluation (if/when needed): _____
2. Device: _____
3. Implementation Plan (i.e., what, by whom, when, where):

   _____

   _____
4. Coordination (i.e., when use, where house, etc.):

   _____

   _____
5. Training (i.e., on what, for whom, by whom, when):

   _____

   _____
6. Progress Monitoring Plan (i.e., when, by whom, standards to be applied):

   _____

   _____

Attach this form to the IEP **and** document team decisions on IEP pages as follows:

- ✓ Special Factors Page: IEP device and/or service
- ✓ Services Page: Training under supplementary aids and services to be provided to the child or on behalf of child; Services under services

_____ _____

Form Completed By Date

Assistive Technology Websites

Augmentative/Alternative Communication (AAC)
http://aac.unl.edu
Site provides excellent background information on AAC.

www.aacintervention.com
The AAC Intervention website offers many practical and useful suggestions for augmentative and alternative communication

ABLEDATA
http://www.abledata.com
ABLEDATA is sponsored by the National Institute on Disability and Rehabilitation Research, U.S. Department of Education. The searchable ABLEDATA database contains over 21,000 products.

Alliance for Technology Access (ATA)
http://www.ataccess.org
The ATA provides AT information and support services to children and adults with disabilities.

ATSTAR Program
http://www.atstar.org
The Assistive Technology – Strategies, Tools, Accommodations and Resources (ATSTAR) Program is designed to increase AT expertise through technology-enhanced learning environments.

Assistive Technology Industry Association (ATIA)
http://www.atia.org
The Assistive Technology Industry Association is an organization of manufacturers, sellers or providers of technology-based assistive devices and/or services. The organization sponsors the ATIA annual conference and the Assistive Technology Outcomes Journal.

Assistive Technology Training Online (ATTO)
http://www.at-training.com
The Assistive Technology Training Online Project provides internet-based training in both general and specific areas of adapted computer use.

www.beacon-ridge.com
Offers many low tech tools to improve writing.

California State University at Northridge, Center on Disabilities (CSUN)
http://www.csun.edu/cod/
Located at California State University, Northridge, the Center on Disabilities develops and publishes materials of interest to the field of disability and sponsors conferences, seminars, and workshops.

Center for Applied Special Technology (CAST)
http://www.cast.org
CAST is an organization that works to expand learning opportunities for all individuals, especially those with disabilities, through the research and development of innovative, technology-based educational resources and strategies.

Closing the Gap
http://www.closingthegap.com
This web site spotlights resources in computer technology, special education and rehabilitation. The Resource Directory is a database of over 2000 hardware and software products which is web searchable. Links to vendors are included.

Consortium for Citizens with Disabilities (CDC)

http://www.c-c-d.org/
CDC is a coalition of approximately 100 national disability organizations working together to advocate for children and adults with disabilities in all aspects of society. The site provides links to a wide range of organizations and resources related to disability issues.

Council for Exceptional Children (CEC)
http://www.cec.sped.org
CEC is an international professional organization dedicated to improving educational outcomes for individuals with exceptionalities, students with disabilities, and/or the gifted. Services provided include professional development opportunities and resources, journals and newsletters with information on new research findings, classroom practices that work, federal legislation, and policies and sponsorship of conventions and conferences.

Disabilities, Opportunities, Internetworking, and Technology (DO IT)
http://www.washington.edu/doit/
DO-IT spotlights programs and resources that promote the use of technology to maximize independence, productivity and participation of people with disabilities.

www.dotolearn.com
This website offers many symbols and layouts for communication boards and visual schedules that can be downloaded.

www.ebooks.com
This is an electronic library that one can browse for free.

The Family Center on Technology and Disability (FCTD)
http://www.fctd.info
FCTD offers a wide range of assistive technology resources for disability organizations, AT providers, educators and families of children with disabilities. Visit the website, which includes an assistive technology glossary, to learn more about assistive technology.

Georgia Project on Assistive Technology (GPAT)
http://www.gpat.org
GPAT is a project of the Georgia Department of Education: Division for Exceptional Students, providing a range of technical support services in the area of assistive technology to local school system personnel and their students. Contains helpful resources, forms, and a video-linked consideration guide.

Guide to the Individualized Education Program
http://www.ed.gov/parents/needs/speced/iepguide/index.html
This publication is provided by the U.S. Dept. of Education and contains useful information related to developing effective IEPs.

LD Online
http://www.ldonline.com
This interactive website provides resources on learning disabilities to parents, teachers, children and other professionals. The site includes books, articles, videos and a newsletter.

LD Resources
http://www.ldresources.com
This site provides resources for people with learning disabilities. Materials include essays, articles, resources and other materials that can be used for non-commercial purposes only.

Linda Burkhart's website
www.lburkhart.com.
Site offers many suggestions for integrating AAC into many activities and environments. It also has information on making switches and other simple assistive technology devices.

National Assistive Technology Research Institute (NATRI)
http://natri.uky.edu/natmenu.html
The National Assistive Technology Research Institute (NATRI) conducts assistive technology (AT) research, translates theory and research into AT practice, and provides resources for improving the delivery of AT services.

National Center for Technology Innovation (NCTI)
http://www.nationaltechcenter.org/
NCTI seeks to broaden and enrich the field of technology for the education of students with disabilities by providing resources and promoting partnerships for the development of tools and applications by developers, manufacturers, producers, publishers and researchers.

Office of Special Education Programs (OSEP), U.S. Department of Education
http://www.ed.gov/about/offices/list/osers/osep/index.html?src=mr
OSEP is dedicated to improving educational results for children with disabilities. The site provides information on Federal policy, national grant projects, national studies, and statistics related to disabilities and other related resources.

Oregon Technology Access Program (OTAP)
http://www.otap-oregon.org/
OTAP provides training, information, technical assistance and resources regarding the uses of technology for children with disabilities.

Pennsylvania Training and Technical Assistance Network (PaTTAN)
http://www.pattan.net/
PaTTAN supports the Pennsylvania Bureau of Special Education and builds the capacity of LEAs to provide services to students receiving special education services. AT resources and links provided.

Project Gutenberg
http://www.gutenberg.org/
This website is a public domain for books, stories, and articles that can be downloaded and then —readll by a computer. This site has a wealth of materials divided into light literature, heavy literature, and references.

Quality Indicators for Assistive Technology (QIAT)
http://www.qiat.org
The QIAT Consortium is a national grassroots group dedicated to indentifying, disseminating, and implementing a set of widely applicable quality indicators for assistive technology services in school settings. The QIAT listserv provides a national forum for discussion of AT issues.

Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)
http://www.resna.org/
RESNA is an interdisciplinary association that provides a credentialing program for assistive technology service providers. The RESNA Technical Assistance Project provides technical assistance to the 56 state/territory programs as authorized under the AT Act of 1998.

Schwab Foundation
www.schwablearning.org.
The Schwab Foundation publishes a free guide to assistive technology.

Switch in Time
www.switchintime.com
This website has several games that can be downloaded at no charge. The Scan _n Read program allows one to create their own e-book.

www.techconnections.org
Resources for vocational assistive technology needs

Technology and Media (TAM) Division of CEC –
http://www.michigancec.org/tam/Home.aspx
TAM is a division of the Council for Exceptional Children (CEC) that works to promote the effective use of technology and media for individuals with exceptional needs. The site includes information on conferences and professional publications including the JSET Journal.

Texas Assistive Technology Network (TATN)
http://www.texasat.net
TATN is a collaborative network between the twenty (20) education service centers in Texas with Region 4 Education Service Center in Houston providing statewide leadership. The site provides links, resources, and training materials.

Texas Education Agency (TEA)
http://www.tea.state.tx.us/
The TEA website provides information about TEA roles and responsibilities such as accountability, assessment, curriculum and educational programs, and education law and rules.

Texas Technology Access Project
http://techaccess.edb.utexas.edu
The Texas Technology Access Project provides information, conducts training and technical assistance and works with policy makers to support children and adults with disabilities in their efforts to acquire and use technology as a routine part of day-to-day living.

www.tiresias.org.
A website with excellent information about a range of resources for individuals with vision impairment including assistive technology information

Trace Center at UW Madison
http://trace.wisc.edu/
This website offers links to numerous sites which feature adaptive computer access in the form of freeware and shareware that can be downloaded.

University of Calgary
http://www.ucalgary.com/
Maintains an excellent cite for children‘s literature.

University of Texas, Department of Special Education, College of Education
http://www.edb.utexas.edu/coe/depts/sped/
This site provides information and useful links to resources and for assistive technology information.

Wisconsin Assistive Technology Initiative (WATI)
http://www.wati.org
WATI is a statewide project funded by the Wisconsin Department of Public Instruction to help all school districts develop or improve their assistive technology services. It includes information on best practices, training materials, resources, sample forms, and provides links to other sites related to AT. The WATI website also has two fact sheets on AT for Hearing Impairment.