

Addressing Diversity with Technology

A. Scenario 1: Shawna has very limited vision. She is unable to see standard size letters and words.

B. Resources for Assistive Technology:

Georgia Project for Assistive Technology: <http://www.gpat.org/>

- **Visual Aids:**

Students with visual impairments can benefit from assistive technology in a variety of areas. A critical need for assistive technology is often in the area of accessing printed information and to providing a means of producing written communication. There are many visual aids including talking dictionaries, adapted tape player/recorders, large print and talking calculators, braille writers, closed circuit televisions (CCTV), and software such as screen reading and text enlargement programs.

Able Data-->Products-->Blind and Low Vision:

<http://www.abledata.com/abledata.cfm?pageid=19327&top=13134&dep=2&trail=22&ksectionid=19327>

- **Talkulator**

Talkulator is a voice output and large print calculator program designed for use by individuals who are blind or have low vision. This application (or app) is for use with the Apple iPad, iPhone or iPod Touch. The user launches the app, touch numbers and arithmetic signs, and the app will speak the numbers in the chosen language. Talkulator is available in seven languages: English, French, German, Spanish, Portuguese, Italian, and Dutch. The app can be used to learn counting and arithmetic in different languages. COMPATIBILITY: For use with the Apple iPad, iPhone or iPod Touch. SYSTEM REQUIREMENTS: Apple iOS 3.0 or later.

C.

- The Talkulator will allow Shawna to calculate math problems by being able to see the number and hear it as she types. This program also vocalizes the answer after the problem has been calculated. The Talkulator program is specifically designed for individuals with low vision. Shawna has very limited vision and must view print that is larger than general, standard print. With this program, Shawna can calculate her math problems easier.

Assure Lesson Plan

<i>Analyze learners</i>	Shawna has very limited vision. She is unable to see standard size letters and words. She and her classmates are in a 4 th Grade Math class.
<i>State objectives</i>	The student will be able to multiply two-three digit numbers by one or two digit numbers.
<i>Select instructional methods, media, and materials</i>	<ol style="list-style-type: none">1. Worksheet with 20 problems2. Calculator/Talkulator3. Pencil
<i>Utilize media and materials</i>	Shawna and the rest of the students will utilize the calculator/Talkulator to check for accuracy after they have completed their worksheet.
<i>Require learner participation</i>	<ol style="list-style-type: none">1. Students will complete the 20 question worksheet.2. After completion, students will use the calculators/Talkulator to check their work for accuracy.3. If errors are found, the student will re-work the problem (without the calculator and then re-check it with the calculator.4. If students desire additional help to understand why they are not getting the correct answer, they will ask for assistance from the teacher.
<i>Evaluate and revise</i>	Teacher will observe as students complete and check their work while providing feedback to students about whether they are meeting the objective.