SAMPLE GOALS AND OBJECTIVES FOR LEARNERS WHO ARE BLIND/VISUALLY IMPAIRED

MATH

The goals and objectives listed on this document are the result of the work of a CDE Work Committee comprised of: Tanni Anthony, Suzan Barlow, Nancy Cozart, Valeria Foreman, Ann Marie Jansen, Shelley Moats, Marci Reid, Sarah Sonnier, Teresa Szymanowski, and Jan Wood.

The listed items are meant to offer guidance to Individual Education Program teams. This is not an exhaustive listing of goals and objectives; rather it includes suggested content and a format for meaningful IEP math goals and objectives. Content in objectives may not reflect the exact grade level when a certain math concept or piece of math-related equipment may be taught. Wherever possible, the goals and objectives were tied to Colorado Department of Education (CDE) content standards and access skills. Goals specific to braille instruction should be under the jurisdiction of a teacher certified in the area of visual impairment.

Note: Best Practice to address needs of students who have visual impairment including multiple disabilities is for TVIs to work with regular ed. Staff and follow the math curriculum guidelines as appropriate. These goals and objectives are in addition to the regular math curriculum. Students will use adaptive materials such as a talking calculator, Braille or large print clocks, real money, etc. to access the standard math curriculum.

Math Objectives Table of Contents

Preschool

Standard 1: Students develop number sense and use numbers and number relationship in problem solving situations and communicate the reasoning used in solving these problems.

Goal: The student will develop functional math skills as supported by the following objectives:

Objective:

1. The student will begin to identify the concept of numbers by exploring groups of real objectives to compare size, shape, and/or quantity.

Baseline: Insert individual student level on this skill.

Criteria: Refer to Criteria Format Sheet.

Kindergarten – 4th Grade

Standard 1: Students develop number sense and use numbers and number relationship in problem solving situations and communicate the reasoning used in solving these problems.

Goal: The student will develop functional math skills as supported by the following objectives:

Objectives:

1. The student will be able to count by ___ (choose from one or more of the following) by using the abacus.

    a. ones
    b. twos
    c. fives
    d. tens
    e. hundreds
    f. thousands

2. The student will be able to ___ (choose from one or more of the following) by using the abacus.

    a. identify place value
    b. add
    c. subtract
    d. multiply

      e. divide

3. The student will be able to read and write ___ (choose from one or more of the following), by using the Nemeth Code.

      a. numbers 0-9
      b. the numeric indicator
      c. mathematical comma
      d. decimal point
      e. equal sign
      f. greater than sign
      g. less than sign
      h. addition sign
      i. subtraction sign
      j. multiplication x sign
      k. multiplication dot sign
      l. division symbol
      m. separation line
      n. cent sign
      o. dollar sign
      p. shape indicators (circle, rectangle, triangle, square)
      q. Cancellation Indicators
      r. Punctuation signs and symbol
      s. Underlined expressions

4. The student will be able to complete the mathematical problems by setting up the appropriate Nemeth Code format for the ____ operation (choose from one or more of the following) on the Braille writer.

      a. addition horizontally
      b. addition vertically
      c. subtraction horizontally
      d. subtraction vertically
      e. multiplication horizontally
      f. multiplication vertically
      g. division horizontally
      h. division vertically

Baseline: Insert individual student level on this skills

Criteria: Refer to Criteria Format Sheet for the above four objectives

Grades 5-8

Students develop number sense and use numbers and number relationship in problem solving situations and communicate the reasoning used in solving these problems.

Goal: The student will develop functional math skills as supported by the following objectives:

1. The student will be able to complete the mathematical problems by setting up the appropriate format for _____ (choose from one or more of the following) on the abacus.

    a. decimals (add, subtract, multiply, divide)
    b. simple fractions
    c. improper fractions
    d. mixed fractions
    e. addition of fractions
    f. subtraction of fractions
    g. multiplication of fractions
    h. division of fractions

2. The student will be able to read and write ____ (choose from one or more of the following) by using the Nemeth Code.

    a. simple fraction indicator (opening, closing)
    b. horizontal fraction line
    c. diagonal fraction line
    d. mixed number line (opening, closing)
    e. degree sign
    f. signs of Grouping (Parentheses, Brackets, Braces)
    g. percent
    h. alphabet Indicators (e.g. Pi and use of Letter Sign)
    i. radical with termination sign
    j. superscript indicator
    k. subscript indicator
    l. baseline indicator

Baseline: Insert individual student level on these skills.

Criteria: Refer to Criteria Format Sheet on the above two objectives.

Sample Math Goals and Objectives for Learners Who are Blind/Visually impaired – 12/6/05. Colorado Department of Education.

Standard 1: Students develop number sense and use numbers and number relationship in problem solving situations and communicate the reasoning used in solving these problems.

Goal: The student will develop functional math skills as supported by the following objectives:

1. The student will be able to read and write ___ (choose from one or more of the following) by using the Nemeth Code.

    a. negation (e.g. not equal to)
    b. tilde
    c. arrows
    d   modified shapes
    e. modified expressions
    f. higher level signs of operation (e.g. logical product & logical sum)
    g. miscellaneous upper level signs and symbols

2. The student will be able to complete the mathematical problems by setting up the appropriate Nemeth Code format for ____ (choose from one or more of the following) on the Braillewriter.

    a. complex Fractions
    b. modified expressions

Baseline: Insert individual student level on these skills.

Criteria: Refer to Criteria Format Sheet on the above two objectives.

Criteria Formats

Select an appropriate evaluation criteria for each objective listed on the IEP request sheet. Blanks in the criteria formats are to be filled in at the IEP meeting. Criteria formats are listed below.

A.   At least _____ of _____ trials for _____ session(s).

B.   With no more than _____ errors for _____ sessions.

C.   At least _____ of _____ trials across _____ settings.

D.   At least _____ times in a ____ minute session.

E.   At least _____ of _____ minutes

F.   For _____ sessions.

G.   At least _____% accuracy.

H.   In _____ age-appropriate settings.

I.   At least _____% accuracy.

J.   At least _____% of the time.

K.   With _____% consistency

L.   For _____ weeks

M.   As measured by: