Alt-MSA Handbook Part 4:
Collecting Baseline Data, Instructing Students, and Selecting Artifacts Demonstrating Attainment of Alt-MSA Mastery Objectives

Part 4 of the *Alt-MSA Handbook* describes the processes that the TET uses in Step 3 to collect baseline data artifacts, instruct students, assess the attainment of MOs, and select artifacts representative of student achievement (summarized in Figure 4-1).

Figure 4-1

Step 3: Collect Baseline Data, Conduct Ongoing Classroom Instruction, Assess MOs, and Construct Portfolio (TET): September through March	
Activities	Handbook References
TET collects baseline data artifacts, instructs, and assesses MOs, selects mastery artifacts, and compiles portfolio. See Figure 4-2, (page 4-2) for timeline for artifact development.	Parts 2, 3, 4, and 5

The timeline in Figure 4-2 will be helpful in instructional planning and collection of assessment data via artifacts. TETs are expected to adhere to the following schedule of dates and activities.

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Refer to pages 1-24 through 1-26 for specific Alt-MSA administration dates.

Figure 4-2

September
(1) Meet with Principal and TET to plan Alt-MSA
(2) Review prior year's Alt-MSA Results, select skills and concepts to be assessed for new test administration
(3) Select or write MOs
(4) Collect Baseline Data
(5) Organize and begin to compile portfolio components

October
(1) Submit MOs for Principal review
(2) Submit principal-approved MOs to contractor
(3) **Collect baseline data, teach, and assess MOs for 2 reading, 2 mathematics, and 1 science (grades 5, 8, and 10)**, videotape
(4) Send MOs to parents/ guardians
(5) Organize and compile portfolio components

November
(1) **Collect baseline data, teach, and assess MOs for 2 reading, 2 mathematics, and 1 science (grades 5, 8, and 10)**, videotape
(2) Revise any newly written MOs on which vendor feedback is received
(3) Organize and compile portfolio components

December
(1) **Collect baseline data, teach, and assess MOs for 2 reading, 2 mathematics, and 1 science (grades 5, 8, and 10)**, videotape
(2) Organize and compile portfolio components

January
(1) **Collect baseline data, teach, and assess MOs for 2 reading, 2 mathematics, and 1 science (grades 5, 8, and 10)**, videotape
(2) Organize and compile portfolio components

February
(1) **Collect baseline data, teach, and assess MOs for 2 reading, 2 mathematics, and 1 science (grades 5, 8, and 10)**, videotape
(2) Organize and compile portfolio components
(3) Parent reviews Portfolio

March
(1) Parent reviews Portfolio
(2) Complete assessment by February 26, 2013
(3) Collect, label, and pack Portfolios for pickup and scoring

Assessment and Selection of Baseline Data Artifacts for Alt-MSA Portfolio

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Artifacts are the evidence of student learning. Alt-MSA requires two artifacts for each MO: (1) **Baseline**: evidence that student needs to learn the skill, and (2) **Mastery**: evidence that student has mastered the skill.

- After MOs are selected through informal pre-assessments, previous Alt-MSA results, review of IEP goals and objectives, and discussion with the TET, and just prior to the start of instruction, collect baseline data and evidence that demonstrates the student needs instruction in this MO. Baseline data must indicate that the student performs the selected skill with 50% or less accuracy. Place baseline data artifacts in portfolio.

- Baseline is the evidence that the student needs to learn the skill, therefore, if an MO has indicated that a student needs to demonstrate mastery more than one time, that is, submit more than one artifact to show mastery, the student would not need to submit more than one baseline artifact to demonstrate the need to instruct the skill, the MO is indicating what needs to be shown for Mastery only.

- Baseline data artifacts may be collected in the form of student work (including audiotape or videotape) or collected in data charts.

- The method of documenting student achievement chosen for baseline data artifacts need not dictate the method of documenting student mastery of the objectives, however. For example, the TET may choose to document the student's baseline performance through a student work sample, and then document instruction and mastery through using a videotape, or vice versa.

- The time between baseline and mastery for ***all types of artifacts*** must be at least 3 different school days indicating instruction prior to mastery. Therefore, baseline and mastery can not be shown on the same date. ***There must be at least 3 school days between baseline and mastery for any type of artifact (work sample, data chart, audio, and video).*** That is, the earliest mastery can be dated from a baseline date is 4 **school** days. For example, the baseline artifact date is October 29th and the earliest the mastery artifact date can be is November 2nd.

- If a TE chooses to use a data chart for baseline only and uses another type of artifact for mastery, the artifact submitted for baseline must show the first column of a data chart and reflect all required components for a data chart. Refer to Part 6 for a template of a data chart that can be used to collect baseline only.

- TEs must not provide any instructional prompts during baseline.

Alt-MSA requires two artifacts for each MO

(1) Baseline: evidence that student needs to learn the skill, and

(2) Mastery: evidence that student has mastered the skill

The time between baseline and mastery for all types of artifacts must show at least 3 different school days of instruction.

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Figure 4-3 describes the purpose of obtaining baseline data and general procedures for baseline data collection.

Figure 4-3

Guidelines For Conducting Baseline Assessments/ Collecting Baseline (Pretest) Data
The Purpose of Obtaining Baseline (Pretest) Data
The purpose of obtaining Baseline or Pretest Data is three-fold: 1. To determine whether the student can perform the objective under naturally occurring situations and if so, to what extent; 2. To determine what content needs to be taught; and 3. To determine how much progress occurs during instruction or after instruction is completed.
Conditions Must Remain Consistent in Collecting Baseline Data
When obtaining baseline information, there are several conditions which must remain consistent: 1. Instructors must not prompt the student for correct responses. Baseline conditions are not intended to be instructional; the purpose of Baseline data is to determine what the student can do under naturally occurring situations. **2. Instructors <u>must not</u> provide any instructional prompts during baseline.** 3. **Baseline measurements must be taken immediately prior to the start of instruction, which should not exceed more than <u>seven school days</u>.** <u>If there is more than a week delay between obtaining the baseline information and providing instruction on the MO, learning may occur during the delay period which would make the original baseline information obsolete. If this should occur, the TE would need to obtain a new baseline.</u> 4. Students must use the appropriate assistive technology (i.e., assistive technology customarily used by the student) during all baseline assessments, particularly if it involves their mode of responding (e.g., rocking level switch for indicating yes or no, joy stick to activate a scanning device, multiple plate switch for indicating choices).
General Procedures for Collecting Baseline Data
The following general procedures must be followed in conducting the collection of Baseline Data: 1. The instructor must provide the appropriate materials, ask the student to perform the behavior(s), wait a predetermined amount of time for the student to respond, and record the student's response(s). 2. Before beginning to obtain baseline information, the instructor must: a. Determine a wait time for student to complete the behavior or work sample b. Provide all necessary materials to complete the behavior or work sample c. Determine a task command 3. For baseline measures, one of the following student outcomes will occur: a. If the student correctly performs the objective after the task command is given and within the designated wait time, the instructor thanks the student and records the outcome on a data sheet or work sample. b. If the student does not perform the objective within the wait time, the instructor thanks the student and records the outcome on the data sheet or work sample as 'no response.' c. If the student performs the objective incorrectly within the wait time, the instructor thanks the student and records the outcome on the data sheet or work sample.

FAQ:

Q: If instruction should begin within seven school days of baseline, how is this monitored if they are not using a data chart and only have student work for a baseline and mastery artifact?

A: MSDE does not require any documentation for an instructional start date for any artifact except for a data chart. Scorers look at the date of a baseline artifact and the date of mastery artifact to ensure at least 3 days of instruction took place between baseline and mastery.

Selection/Creation of Artifacts for Alt-MSA Portfolio – Baseline and Mastery Artifacts

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Artifacts are collected throughout the test window and placed in the Portfolio in Sections 3, 4, and 5. The types of artifacts that may be submitted, the required components of each type of artifact, and how artifacts are scored are described below. Select the type of artifact that best reflects the student's attainment of the MO. The mastery artifact must demonstrate the same skill set as the baseline artifact. **The mastery artifact should not be substantially less difficult than the baseline artifact.** The student's reading, mathematics, and science MOs, baseline data artifacts, and mastery artifacts must be aligned with grade-level curriculum content, grade- and age-level instructional activities, and grade- and age-appropriate materials. Although the content, activities, and materials used for instruction and assessment may be modified, these must be consistent with and reflect the content standards at the student's grade level.

ACCEPTABLE as Artifacts for Baseline and Mastery

For each MO, evidence of baseline data and student mastery of the objective must be included in the portfolio. It is important to select the type of artifact that best displays evidence that the student is demonstrating the skill in the MO. Test Examiners are encouraged to submit student developed evidence when possible.

There are 4 types of artifacts or evidence that are acceptable for both baseline and mastery:

- Videotape (at least two videotaped artifacts, one in reading and one in mathematics, are required for each Alt-MSA portfolio.
- Audiotape
- Student work (Original - i.e., not photocopied). Student work must show at least 3 **school** days between the date on the baseline artifact and the date on the mastery artifact. It is not necessary to submit more than the baseline and mastery artifacts.
- Data collection chart (Original - i.e., not photocopied) (Data charts for mastery must show evidence of at least 3 instances of instruction prior to mastery)

Note: If submitting student work or a data chart, include the materials used to assess the MO, (e.g., the graph the student analyzes). *Student work may include a photograph or digital scan of student work that is too large or 3-dimensional and thus cannot be placed in the portfolio. The test examiner must record on the photograph/scan all required artifact elements (see Page 4-6).*

UNACCEPTABLE as Artifacts

Artifacts that **<u>must not</u>** be submitted as evidence of baseline or mastery are listed below (artifacts will be scored as "Not Mastered" for the objective if these types of artifacts are all that is submitted for a MO):

- Checklists

- Photographs of the student performing the objective

- Narrative description of the student demonstrating the MO

- Student dictated response unless the student responses are sentence length and signed by the Test Examiner. Otherwise, another acceptable type of artifact must be selected.
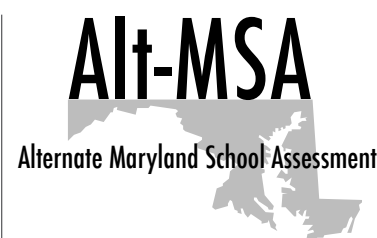
There are 4 types of artifacts or evidence that are acceptable for both baseline and mastery:

> Videotape

> Audiotape

> Student Work (Original)

> Data Collection Chart (Original)

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- Any artifact that does not contain all the required MO components (Part 3) or required artifact components (listed below) as described in this *Alt-MSA Handbook*.

Note: Samples of unacceptable artifacts can be found in the Condition Code Packet found on the Alt-MSA Online Resource Center Tab and on Docushare.

Required Artifact Elements

The following MUST be recorded on or included with each baseline data artifact and mastery artifact. Artifacts <u>cannot</u> be scored "mastered" if they are missing any of the required information. These required elements MUST appear on the baseline data artifact and the mastered artifact, whether it is a sample of student work (including videotape or audiotape) or a data chart.

(1) Student name, first and last. If using a cover sheet, the student's first and last name must be on both the coversheet and artifact. If multiple pages are used in sections 3, 4 and 5, TEs must place student's full name (first and last) on each accompanying page.

(2) Baseline data without instructional prompts that documents the student needs instruction in this MO. Baseline data must indicate that the student performs the selected MO with 50% or less accuracy (Baseline data may be reflected in a videotape, audiotape, student work sample or data chart),

(3) Date student was assessed using this artifact, including month, day, and year. Data charts must include dates and data for each observation,

(4) MO being assessed,

(5) The accuracy score - % or number correct,

(6) Type of prompt selected prior to assessment at top of page, and indicate the specific test items where the selected prompt type was used during the assessment, not to exceed 5 total prompts on the entire artifact,

(7) Key to interpreting TE notations,

(8) Page number that corresponds to the Table of Contents,

(9) The observable and measurable student response is evident and aligns with the MO (data charts must include the specific words, behavior, or skill that is being assessed),

(10) Each data chart must show 3-5 recorded observations of instruction prior to attainment of the criterion level as well as the attainment of the criterion level. These observations of instruction DO NOT include baseline or attainment of mastery data, (see Figure 6-11 for an example)

(11) Each type of artifact must show at least 3 different **school** days between baseline and mastery. That is, the earliest mastery can be dated from a baseline date is 4 **school** days. For example, the baseline artifact date is October 29th and the earliest the mastery artifact date can be is November 2nd.

(12) The artifact must state alignment and connection to grade-level curriculum materials, (e.g., grade and name of modified grade level text, grade and name of content area unit). For the science alignment MOs, the Science Content Standard label, the grade at which the artifact is aligned and the science content standard (earth/space science, life science, chemistry, physics, or environmental science) must be listed on the artifact. For example, a grade 5 student: 5.C.3.a Grade 4 Physics

(13) All components of the MO must be evident on both the baseline and mastered artifacts, (***Note:** if an MO states that the skill be demonstrated a specific number of times, this applies only to the mastery artifact. The baseline artifact requires only one demonstration of the skill.*),

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(14) If the MO states that the student will demonstrate the skill a specific number of times or that a specific number of items will be presented, the specified number of times and items must be evident in the videotape, data chart, student work, or audiotape.

(15) **In grades 5 and 8, the alignment of the artifacts with accurate science content for reading MOs 3 or 4 and 7 or 8, and mathematics MOs 5 or 6, 7 and 8 must be explicitly stated and evident in artifact**. TEs must include the content standard indicator and objective from the SC, the grade and science category for the embedded science MOs. (For example, 4.D.3.a grade 8 Chemistry)

[OR]

In grade 10, the alignment of the artifacts with accurate biology content for reading MOs 3 or 4 and 7 or 8, and mathematics MOs 5 or 6, 7 and 8 must be explicitly stated and evident in artifact. TEs must include the content standard indicator and objective from the CLG, the grade and science category for the embedded science MOs. (For example, 3.1 Grade 10 Biology)

Helpful Hint: When Developing a Mathematics Artifact Aligned to Science

When developing an artifact in Measurement and Data Analysis to align to science, the TE needs to ensure that the artifact refers to the science process and how the data collected impacted or related to the science being assessed from the SC on the artifact. This can be done by describing the activity or investigation that was observed in the directions on the artifact and in one or more of the questions asked on the artifact. The artifact needs to make a clear connection back to the science concept and not just reflect the math skill; the math skill would need to be applied to the science of the activity. This can be done by asking a tie-back question at the end of the artifact such as:

Why did this happen?

What………?

How ………?

When…….?

How did you get your answer?

The Data Source must be stated on any mathematics or science data display graph used (even if it is student or teacher generated). A **Science Artifact Checklist** has been developed as a resource to assist with capturing the artifact requirements. This checklist can be found in Part 6.

Characteristics of a Good Artifact

(1) Consider a student's learning strengths, needs, and unique characteristics

(2) Consider a student's communication strengths and needs

(3) Consider a student's response mode

(4) Consider a student's preferences

(5) Use clear and concise language for the task direction

(6) Consider a design layout for clarity and focus such as font size, white space, color versus black and white, photograph versus PCS
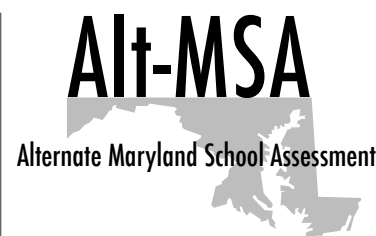
Refer to the Professional Development Science Module on the Alt-MSA Online Resource Tab for a checklist to follow when developing a science artifact.

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Creation of Pre-Approved Artifacts and Supporting Instructional Materials:

In a continuing effort to assist Alt-MSA teachers and provide guidance on linking assessment and instruction, MSDE has created a series of pre-approved artifacts. To access the artifacts and supporting documentation, links are provided on the Resource Center tab of Alt-MSA Online. MOs that have a pre-approved artifact will be noted in the printable MO bank on the Resource Center tab. Please note, if multiple pages are required for an approved artifact, this requirement will be noted on the supplemental pages that accompany the artifacts.

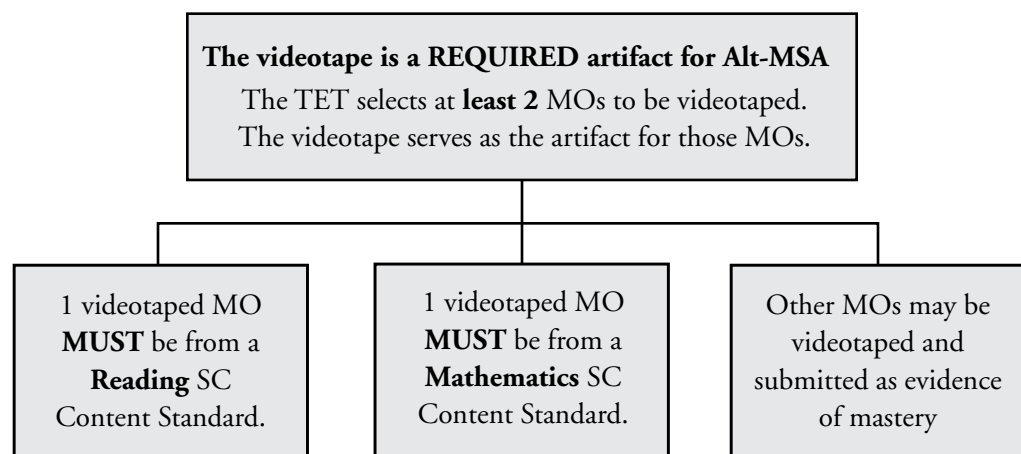**Figure 4-4**

Specific Videotaped-Artifact Requirements

The videotape is a REQUIRED artifact for Alt-MSA
The TET selects at **least 2** MOs to be videotaped. The videotape serves as the artifact for those MOs.

1 videotaped MO **MUST** be from a **Reading** SC Content Standard.	1 videotaped MO **MUST** be from a **Mathematics** SC Content Standard.	Other MOs may be videotaped and submitted as evidence of mastery

Figure 4-5

Required Components on Videotape

Before the student demonstrates the MO, state or clearly display the following:

  (1) First and last name of student (student introduces self, if possible)
  (2) Date: month, day, and year
  (3) MO being assessed
  (4) Prompt type selected prior to starting assessment
  (5) Grade-level alignment and connection to curriculum and materials. (e.g., name of modified grade level text, content area unit).
  (6) For science alignment MOs only, include science content standard label, grade alignment and science standard. For example, 5.C.3.a Grade 4 Physics or 3.1 Grade 10 Biology

After the student demonstrates the MO, state the following:

  (6) Number of test items on artifact, number and type of prompt used, and
  (7) Accuracy score (percent or number correct) of the student's demonstration of the MO. **NOTE: Use of generic statements by the TE such as "Good job" are not an accuracy score and will not be considered as such during scoring.**

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NOTE: All videotapes must be accompanied by baseline data artifacts (videotape, audio-tape, student work, or data chart) that demonstrate that the student needs instruction in this MO. Baseline data must indicate that the student performs the selected MO with 50% or less accuracy. There must be at least 3 **school** days between baseline and mastery.

Figure 4-6

Tips for Creating a Script When Using Media for an Artifact

Using a script will assure that all required components are present on the artifact.

Before the student demonstrates the MO, state or display
- Student's first and last name; student introduces self if possible, or the test examiner introduces student
- Today is _____ m/d/y
- The MO assessed is _____
- The grade-level connection to SC and materials is _____
- The prompt type selected prior to starting assessment is _____
- If the MO aligns to science: The science content standard label is _____(5.B.1.a), grade alignment_____ (4), content standard_____ (Physics)

Begin taping the student demonstrating the MO. If you need to stop the tape after completion of demonstration, state that you are going to do so.

After the student demonstrates the MO, state or display
- Student was given _____ (number of test items) and used_____(number) _____ prompts (single type prompt) to complete the task
- The accuracy score is _____
- The student achieved/did not achieve mastery

— Submitted by Michelle Brady, LRE
Life Skills Intervention Teacher,
Harford County

There is a video cover sheet located in Part 6 to serve as a resource for TEs.

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General Videotape Requirements: Student Demonstration of MO

- Tape the student's demonstration of the MO exactly as the MO is written. For example, if the MO states that the student will demonstrate the skill a specific number of times or that a specific number of items will be presented, the specified number of times and/or items must be evident on the videotape.

- Be certain that the student's accuracy score, number of test items, type of prompt selected prior to assessment, and the number of prompts used are stated. Remember a maximum of 5 total prompts are allowable for any artifact.

- The videotape will be scored by rating the student as "mastered" or "not mastered" based on the student's demonstration of the skill in relation to the MO.

General Videotape Requirements:
Successful Taping of Student Demonstration of MO

- **The student's face and hands and the materials being used must be evident** on the videotape. Scorers will need to observe the student's face and hands in order to determine mastery of the objective.

- Both audio and visual components of the videotape **must** be present in order for scorers to determine mastery of objective.

- Videotaped demonstrations of MOs may be no longer than **5 minutes** for each objective. If the response is not evident within 5 minutes, the artifact will be scored "not mastered." Only the student's demonstration of the MO should be videotaped, not entire activity or lesson.

- Record only one student on each videotape:
  - If more than one student is recorded on a single videotape, all students observed on the tape will receive "not mastered" for that MO.
  - Be sure to place each student's videotape in his or her portfolio. No attempts will be made to match misplaced videotapes with the correct portfolios.

- Only submit one continuous video for each content area. Both content areas can be submitted on same video.

General Videotape Requirements: Technical Considerations

- Verify the accuracy of the time and date on the camera. An incorrect date or time may render the videotape non-scorable.

- Be certain that the audio and video recording features of the camera are functioning properly.

- Label any Hi8 cassettes with the brand and model number of the camera on which they were recorded and in which format it was recorded (Video 8, Hi8, or Digital 8). This will facilitate the identification of the appropriate equipment to use for viewing and scoring these cassettes.

- DO NOT apply labels to videotapes with tape. This can damage the equipment used for scoring.

- **Be certain to "finalize" your video in the equipment that is used at the school prior to submitting portfolios. This function is not possible at the scoring site in order to view the contents on the video.**

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Informing Parents/Guardians About Videotaping

Parents/guardians should be informed that:

- videotapes are required for the Alt-MSA,
- only scorers who have signed Non-Disclosure Agreements will view the videotapes, and
- the videotapes are secured.

Parents/guardians are not "asked for permission" to videotape student for the Alt-MSA. However, if a parent/guardian states in writing that they will not allow their child to be videotaped, follow these procedures for the mandated videotaped artifacts:

1. Three professional staff must observe the student demonstrate the selected reading and mathematics MOs. This group of observers should be comprised of the following individuals:

    a. The student's primary teacher

    b. A member of the professional team who is providing direct service to the student (or another teacher)

    c. A district representative not from the student's school

2. Each observer will record a detailed observation of the entire student performance of the target MOs. All observers must review their written observations for accuracy and completeness to be certain that all observed components of the written MO are included in their observation. Observers will print and sign their names at the end of the recorded observation. The student's name, grade, school, and MO must be included at the beginning of the observation.

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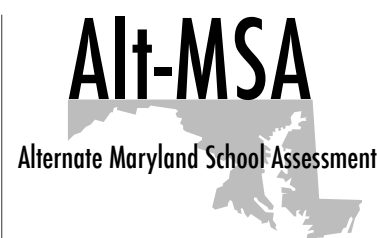
Required Components
for Audiotape

Specific Audiotaped-Artifact Requirements

The TET may choose to submit certain artifacts on audiotape. (Note: Audiotape is NOT an alternative to videotape). The audiotape will be scored by rating the student as "mastered" or "not mastered" based on their demonstration of the skill in relation to the MO. If the target student behavior is not observed within 5 minutes, the MO will be scored "not mastered." The TE must review the audiotape to determine that the student's response is audible.

Required Components on Audiotape

The following must be included on the audiotape:

- **Before** the student demonstrates the MO, the following must be stated:
  - (1) Student Name (first and last). The student can introduce him/herself, if possible,
  - (2) Date- month, day, and year,
  - (3) MO being assessed, and
  - (4) The prompt type selected prior to the assessment
  - (5) The grade-level alignment to curriculum and materials. (e.g., name of modified grade level text, content area unit).
  - (6) For science alignment MOs only, include science content standard label, grade alignment and science standard. For example, 5.C.3.a Grade 4 Physics or 3.1 Grade 10 Biology

- **After** the student demonstrates the MO, the following must be stated:
  - (7) Number of test items, number and type of prompt used, and
  - (8) Accuracy score (percent or number correct) of the student's demonstration of the MO. **NOTE: Use of generic statements by the TE such as "Good job" are NOT an accuracy score and will not be considered during scoring as an accuracy score.**

NOTE: Baseline data that document that the student needs instruction in this mastery objective must accompany the audiotape. Baseline data must indicate that the student performs the selected mastery objective with 50% or less accuracy. Baseline data may be reflected in a videotape, audiotape, student work, or a data chart. There must be at least 3 school days between baseline and mastery.

Audiotape the student's demonstration of the MO exactly as the MO is written. If the MO states the student will demonstrate the skill a specific number of times or a specific number of items will be presented, the specified number of times and items must be evident on the audiotape.

Requirements for Student Work (Originals, not photocopied)

Student Work (**originals, not photocopied**) that clearly reflects attainment of the MO serves as direct evidence that the student has mastered the objective.

- TEs are cautioned about submitting a worksheet (such as an activity sheet from an external source, like a workbook, textbook, or periodical) on which a student is required to recall and repeat information, select a pre-determined response, or provide limited or brief responses (e.g., circle a selection, identify a statement as true/false, fill in a blank). Commercial materials may not align with the selected MO and consequently render the artifact not scorable. Commercially produced materials may, however, be useful during instruction for the purpose of student practice.

- If commercial materials are used, TEs must assure that they align with the individualized MOs written by the TEs for a specific student.

- If the artifact or all questions on an artifact do not align with the MO it will be scored "not mastered."

- If the directions written on the artifact do not align to the MO it will be scored "not mastered."

- A student's dictated response, recorded verbatim, may be accepted as student work, only if the response required is lengthy, i.e., sentence-length response to questions and the student cannot write the response him/herself. The verbatim-dictated response must be recorded next to the questions or stimulus the student must respond to. **The TE must note on the artifact that the response was dictated by the student**. The TE **must** sign the artifact below the responses they recorded for the student. If less than sentence length responses are required, the student responses must be recorded on data charts, videotape or audiotape.

- TEs working with visually impaired and blind students using braille to respond on work sample artifacts, **must** transcribe the braille response (single response or multiple word response). The TE **must** sign the artifact below the responses they transcribed for the student. This same process should be followed for transcribing sign language for hearing impaired students.

- Any TE markings on student work that indicate the correctness of a response must be clear to the scorer. TEs **must** provide a key showing what specific notations used on student products or data collection charts represent (e.g., C/√/+ = correct response; X/– = incorrect response; or O/- = no response.)

- **Student Work Artifacts, both baseline and mastery, MUST include all of the required components as noted on page 4-6.**

A sample artifact with all required components is shown on page 4-14.

Samples of student work may be viewed on the resource page of Alt-MSA Online at **http://www.altmsa.com**.

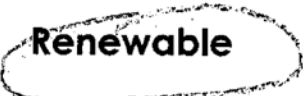## Alt-MSA
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Requirements for Student Work

Student work must be originals, not photocopied.

See pages 4-6 through 4-7 for required components of Student Work Artifacts.

FAQ

Q: Are TEs permitted to use preprinted labels for responses? For example, vocational words written on labels and the labels are placed next to the correct definition or next to the correct sentence.

A: Creativity of the artifact for the student response is up to the teacher. It would have to be evident there was a choice for the student to make in selecting the correct label to place next to the appropriate answer.

MO being assessed

student's name

date student was assessed

Student Name _Jane Doe_____ Date _November 1, 2012_

Mastery Objective: Given words/pictures of resources, the student will identify each as a renewable or nonrenewable resource, with prompting with 100% accuracy.

grade level content

Grade Level Content/Material: 5ᵗʰ Grade Environmental Science aligned to 6.A.1.a in SC.

accuracy score

Percentage Achieved _100%_   _verbal_   Type of Prompt

TE will identify the one type of prompt selected to be used on the artifact to elicit a response. It should be noted prior to assessment at the top of the artifact.

Circle the correct answer to the questions below.

observable, measurable student response (student circles response)

C 1. What type of natural resource is a plant 🌽 ?

Renewable   Nonrenewable

C 2. What type of natural resource is wind 🌀 ?

Renewable   Nonrenewable

TEs will identify where they have aligned their artifact to in the science SC only for reading and mathematics, science-aligned artifacts.

C 3. What type of natural resource is gasoline ⛽ ? (VP)

Renewable   Nonrenewable

TEs will identify where they have used the selected prompt type next to each test item, not to exceed 5 prompts total.

C 4. What type of natural resource is fresh water 💧 ?

Renewable   Nonrenewable

C 5. What type of natural resource is fish 🐟 ?

Renewable   Nonrenewable

key to interpreting TE notations

Verbal Prompt (VP)

c=correct   x=incorrect

Score: 100% because the student responded correctly to all questions with the prompt type selected and TE noted where the prompt was used on test item #3.

The verbal prompt was used to elicit a response.

Requirements for Data Charts (Originals, not photocopied)

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Data charts must be originals, not photocopied, typed, or word-processed. These should display evidence of instruction and learning over time and document student demonstration and attainment of the MO.

Requirements for
Data Charts.

- Baseline data to document that the student needs instruction in this mastery objective must be included with the data chart. Baseline data must indicate that the student performs the selected mastery objective with 50% or less accuracy. Baseline data may be reflected in a videotape, audiotape, student work, or a data chart.

- The data chart must show at least 3-5 recorded observations of instruction after baseline data and prior to attainment of the criterion level as well as the attainment of the criterion level.

- Record the specific student behavior or skill being measured, e.g., the words, numbers, or responses expected of the student. Also include "how" the student will respond, for example, touching the AT device or eye gaze. Do not use wording such as "trial" or "session."

- If the student is using AT (low/medium/high), include the distracter(s) used with the correct response to show that a choice was given. A blank distractor is not considered a viable choice for Alt-MSA purposes. The purpose of a distractor is to appear as a plausible answer choice for a test item.

- TEs must provide a key showing what the specific notations on the data collection chart represent (e.g., C/_(✓)/+=correct response; X/- =incorrect response; O/- = no response.)

Required Components Of Data Charts
- **Data charts MUST include all of the requirement components as noted on page 4-6 of the *Alt-MSA Handbook*.**

Figure 4-7 on page 4-16 contains some additional information to help TETs with their data collection activities. Samples of student data charts may be viewed on the resource page of *Alt-MSA Online* at **http://www.altmsa.com**.

Figure 4-7

Data Collection

Data collection is an essential component in documenting the attainment of MOs for the Alt-MSA and goes beyond the recording of grades on tests, assignments, or homework. It is defined as continuous, systematic, and objective quantification of (a) student responses and (b) student products. The collection of data on student behavior is necessary for many reasons:

- Both IDEA and NCLB regulations require that special education teachers collect instructional data on their students.
- It establishes student progress based on fact and guides teachers in determining the effectiveness of their instructional procedures, adaptations, accommodations, modifications, and use of assistive technology.
- Data collection of student responses provides helpful information to make good instructional decisions for developing, monitoring, and evaluating IEPs and other accountability measures such as Alt-MSA.
- Data collection helps teachers to better predict the future performance of their students for placement decisions; it produces an ongoing accountability system for teachers and their staff; and, it allows for dissemination of successful instructional results or procedures to share with other educational professionals and parents and guardians.

The four major types of data collected for instructional purposes include:

- Frequency, the number of times a behavior or behaviors occur within a specified period of time,
- Percentage, number of correct responses divided by the total number of responses,
- Rate, frequency of a behavior divided by a time measure, and
- Duration, total amount of time a behavior occurs.

Collecting data on student products, such as math worksheets or written responses to questions is easy because the products are **tangible**, and the teacher can record the outcome or student response after the behavior has occurred. (And of course any student response can be made permanent if it is video- or audiotaped.) However, observation of behaviors as they are occurring (e.g., sight word reading, yes/no verbal responses, nonverbal responses such as pointing or eye gazing to a correct response, using a calculator, or counting coins) is difficult to record because the behavior is **transitory** - lasting only a short period of time. The recording of transitory behaviors requires the continuous attention of the teacher, must be measured as the behavior occurs, and may be unreliable because of the transitory nature. **When recording data for student's using transitory behaviors, including those students who cannot mark or transfer their answer(s) on a tangible product (work sample), the TE must use data chart, video or audio artifact to document the observable measurable behavior.** For example, unless someone else is observing and recording the behavior, it is impossible to confirm its occurrence. Because the recording of data chart, transitory behaviors runs the risk of being unreliable, the following recommendations are advised when collecting data on transitory student behaviors:

- The transitory behavior to be observed must be well-defined, such as the measurable, observable student response written in the student's MO.
- Data on the student's response must be recorded as soon as it occurs. Teachers should not wait until later to record the student response(s) to avoid the risk of forgetting what happened or making an error in recording.
- Student responses should be observed and recorded across many observations not just when the student reaches mastery criterion. Ideally, continuous data collection is recommended, that is, data are collected each time the MO is taught.
- If continuous data collection is not possible, student responses should be observed and recorded across consecutive observations as the student approaches his or her criterion for mastery. A minimum of three to five consecutive observations of instruction on different days is required prior to observations that the student has mastered the objective to establish reliable data and show factual acquisition of the MO.

References

Alberto, P.A., & Troutman, A.C. (2003). Applied Behavior Analysis for Teachers (6th ed). New York: Merrill Publishing Co.

Snell, M.E., & Brown, F. (2000). Instruction of students with severe disabilities (5th ed.). Upper Saddle River, NJ: Prentice-Hall, Inc.

Conduct Instruction for Mastery Objective Attainment

(September–March)
Instruction on the MOs should begin as soon as they have been selected/written and reviewed by the principal or designee and baseline data have been collected.

- The development of the Alt-MSA portfolio should be conducted within the context of the ongoing daily instructional program.

- TEs are neither expected nor encouraged to work on any component of the Alt-MSA Portfolio development process outside the school.

- The Alt-MSA Portfolio can only be constructed within the context of daily instruction with the student and in collaboration with the TET.

The TET shares the responsibility for the development and modification of grade-level and age-appropriate materials, data collection sheets, and instructional strategies.

- Grade-level content standards are the starting point for teachers as they begin to plan instruction with student achievement of standards in mind.

- Instruction must align with grade-level curriculum content, grade- and age-appropriate instructional activities, and grade- and age-appropriate instructional materials.

- Modifying or reducing the complexity of objectives, learning activities, and materials, and increasing the time to learn will foster the student's access to grade-level content standards.

Plan how each MO will be taught and assessed, and the type of artifact that would best reflect evidence of mastery.

- General education teacher team members can contribute ideas about how they teach and assess similar objectives with same age and grade-level peers.

- General education teachers can provide a curricular and grade-level context for teaching and assessing MOs.

- Using a specific curricular context helps TEs teach the MO and select the type of artifacts that could be submitted as evidence of mastery.

- TEs who teach in a special school or center could collaborate with reading, mathematics and science instructional specialists in the central office and with general education colleagues in comprehensive schools.

For additional guidance on instructional strategies, please refer to the Alt-MSA Professional Development Online Training Modules.

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Best Practices

Alt-MSA and Daily Instruction:

Instruction on the MOs should begin as soon as the MOs have been selected or written.

Collect baseline data prior to beginning instruction of each MO.

Collaborating with TET:

Collaborate with general education teachers to ensure that artifacts are aligned with objectives.

Using Data to Plan Reading and Mathematics Instruction:

Combine daily data from IEP implementation with Alt-MSA baseline data to plan instruction to meet MOs as well as IEP objectives.

Implementing Reading and Mathematics Instruction:

Continue regular schedule of reading/mathematics instruction so as not to disrupt the daily routine.

Implement instruction for the MOs along with IEP instruction as appropriate.

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Using Prompts for Instruction

Instruction of each MO. Teach MOs using various evidenced based instructional procedures such as least to most prompt hierarchy, most to least prompt hierarchy, time delay, gradual guidance, task analysis with chaining procedures, simultaneous prompting, shaping, fading, etc. Instructional procedures are decided depending on the student, task, and instructional content.

Response prompts are provided <u>during instruction</u> to increase the probability of a correct response so reinforcement can be provided. Instructional prompts should be chosen as a single prompt or combination of prompts that suit the skill and setting as well as the student's preferences, abilities, and state of learning (*Snell & Brown, 2006*; *Wolery et al., 1992)*. Prompts can be verbal, gesture, model, partial physical, and/or full physical assistance provided before, during, or after a student's behavior. A student who performs the skill independently under natural conditions or in response to a task direction (e.g., given the task direction "match the words to the pictures," the student matches each word to its picture correctly with no other assistance required) is not receiving prompts.

FAQ:

Q: When recording prompts during instructional sessions on data charts, is it required to document only the prompt type or the prompt type and how many of each prompt type was used?

A: During instructional sessions, the TE should indicate the type and number of prompts used. The use of a data chart is to understand the progress the student is making during instruction and determine how to approach teaching strategies on a daily, weekly basis. In order to do that, the TE needs to document the prompt type used as well as how many of each prompt type were used. Keep in mind, that this can look many different ways based on the prompting systems described in the Alt-MSA handbook. Otherwise, how does a TE know what direction they are going as a teacher? The scorers are looking at baseline and mastery. The data chart between baseline and mastery must also show at least 3 school days of instruction in addition to the baseline and mastery. Those data entry points must have the full date.

Figure 4-8

Definitions, Examples, and Pros and Cons of Common Prompts

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| Definition and Example	Pros and Cons
Verbal or Signed Prompts	
• Words or manual signs that tell the student how to respond ("Spray the mirror"); not the same as instructional cues (e.g., "Clean the bathroom") or directions • Match to fit student's comprehension of words/signs and the amount of prompt needed (e.g., nonspecific prompts like "What's next?" may be good later in learning but provide little information) • Ensure that written MOs have the required components.	**Pros:** • Can be given to a group and used from a distance • Do not require visual attention; involve no physical contact **Cons:** • Must be heard and understood by the student and followed • Level of complexity varies highly • May be hard to fade

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Figure 4-8

Definitions, Examples, and Pros and Cons of Common Prompts

Pictorial or Written Prompts	
• Pictures or line drawings that tell the student how to perform a behavior; pictures may show the completed task or one or more steps in the task; words may accompany pictures if student can read • May be used as permanent prompts that are not faded • Level of abstraction needs to fit student (e.g., photos, drawings, line drawings, letters, numbers, words)	**Pros:** • Can be used unobtrusively; do not require reading • Can promote independence even when used as permanent prompts • Standard symbols may help maintain consistency **Cons:** • Pictures may be poorly drawn or taken; if lost, pictures may not be replaceable • Some actions are difficult to illustrate • Must be seen and understood by the student and followed • Level of abstraction varies
Gestural Prompts	
• Movements made to direct a person's attention to something relevant to a response • Pointing toward the desired direction; tapping next to the material needed	**Pros**: • Unobtrusive, more natural cues • Can be given to a group and used from a distance; requires no physical contact **Cons**: • Must be seen and understood by student and followed
Model Prompts	
• Demonstrations of the target behavior that students are expected to imitate • Models often involve movement (showing a step in shoe tying) but may involve no movement, as in showing a finished task (show one place set at a table and match to sample) or be verbal ("sign 'want ball'") • Models complete (show entire step) or partial (show part of the step); if the model is done on a second set of materials, it need not be undone.	**Pros:** • No physical contact with person is needed; can be used with a group and given from a distance • Versatile: models suit many target behaviors • Complexity of model can be adjusted to suit student's level of performance • Others can be effective models on a planned or incidental basis; modeling can be unobtrusive **Cons:** • Require students to attend (see, feel or hear the model) and to imitate • If model is too long or complex, imitation will be difficult

Figure 4-8

Definitions, Examples, and Pros and Cons of Common Prompts

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Definition and Examples	Pros and Cons
Partial Physical Prompts	
• Brief touching, tapping, nudging, or lightly pulling or pushing a student's hand, arm, leg, trunk, jaw, etc. • Used to help a student initiate a response or a sequence of responses • Follow the rule: "as little as necessary."	**Pros:** • Given some control over student responding with little physical contact • Useful when vision is limited **Cons:** • Can be intrusive; some students do not like to be touched; can't be used at a distance • Care must be taken not to injure or throw student off balance
Full Physical Prompts	
• Full guidance through a behavior, often involving hand-over-hand assistance (as in using a spoon or smoothing) or movement of the trunk and legs (as in assisting with walking forward) • Physical prompts should match task steps • Follow the rule "as little as necessary" while being sensitive to any student movement and easing physical control; does not involve force	**Pros:** • Allows total control over response, thereby reducing errors • Useful when vision is limited **Cons:** • Highly intrusive, unnatural, and stigmatizing in public; some students do not like to be touched; can't be used at a distance • Care must be taken not to injure through tight holding, to force compliance with a movement, or to throw student off balance
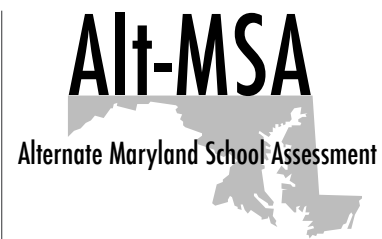
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Prompting is an effective teaching strategy, however, it is important that it is used only when necessary and to consider **fading prompts** as quickly as possible so that a student does not become dependent on prompting and continues to work towards being as independent as possible. One way to do this is to be sure to WAIT before giving a prompt so students have the opportunity to perform the target response with as little assistance as necessary. Students should receive praise and/or other reinforcement after each prompted response and especially for giving responses without a prompt or with less assistance than needed previously.

The prompts, prompt system, and the response latency an instructional team selects for teaching a student a specific skill should be chosen to suit that student's abilities, for example, how long she/he can wait, how well she/he follows spoken or signed requests, whether she/he imitates models or responds to pointing, and if she/he tolerates physical touch. (*Page 141 Snell & Brown*) After teams select appropriate prompt procedures that suit individual students, then they must monitor each student's progress as instruction progresses. (*Page 142 Snell & Brown*) Examples of the most commonly considered prompting systems that can be used during instruction are found in Figure 4-9.

Essentially all three types of instructional components (task demand, behavior cue, and verbal response cues) must be defined in advance and systematically determined how and when they are to be used. The task direction is a statement, request, or action provided to the student to begin/complete an instructional behavior. It can be verbal or physical.

Generally there are two ways in which a behavioral cue is implemented. If the student starts inappropriate behaviors, the instruction is stopped until the student regains composure. Then instructional procedures are started again and the student is cued to attend to the task. Secondly, depending on the instructional procedures, for example if a teacher is using a least to most prompt hierarchy, the teacher continues with the instructional procedure, using the designated prompting system to get the student to attend to the task and respond correctly. As for the verbal prompt, again it must be stated in the specific instructional procedures as to what, how, and when it is to be used according to the prompt system selected.

Figure 4-9

Commonly Used Response Prompt Systems and Considerations for Use

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Description of Prompt System	Supportive Research and Considerations for Use
Constant Time Delay	
• Select prompt that controls the response and determine how many trials will be given at 0-second delay. • During initial requests to respond, the prompt is given at the same time as the request (0-second delay), making early trials look like simultaneous prompting. • After a trial, several trials, or session(s), the delay between the task request and the prompt is lengthened to 4 seconds (or longer). If the student does not respond correctly in 4 seconds, the prompt is given. • Initially reinforce prompted correct responses, later differentially reinforce. • Always reinforce unprompted correct responses. • Continue giving delayed prompts until learning occurs (responds correctly without the prompt over several trials). • If errors occur, interrupt with the prompt; after several consecutive errors; reintroduce 0-second delay for one trial or more. • Response fading is part of the procedure as student learns that anticipating the delayed prompt enables faster reinforcement and/or completion of the task.	**Supportive Research:** Evidence of success for both discrete and chained responses within a range of tasks and students with disabilities. **Considerations:** Initially, student does not have to wait for assistance. Easier to use than progressive delay or prompt hierarchy. Only one prompt or two combined prompts (verbal 1 model) are used; prompt(s) must work for the student. Requires practice in using; need to count off the delay silently. Responses made before 4 seconds (correct anticipations) should receive more reinforcement than prompted responses. If an error is repeated, use progressive delay, change program, or simplify task. Can be used with forward or backward chaining or when a total task format is used. **Recommended Use:** During early to late acquisition as well as other phases, but change to a less intrusive prompt. Good with chained or discrete tasks; equally effective but easier to use than progressive delay and more efficient than increasing assistance system.

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Figure 4-9

Commonly Used Response Prompt Systems and Considerations for Use

Simultaneous Prompting	
• Request student to perform the target behavior while prompting at the same time. Model prompts are often used. • Reinforce both prompted correct and independent correct responses. • Before every training session, give an opportunity to perform without prompting (probes) (or following a set number of trials) to determine when to fade prompts. • Fading of prompts occurs when probes alert teacher to stop prompting, prompting is stopped, and student continues to respond correctly.	**Supportive Research:** Increasing number of applications; successful with discrete behaviors (naming photos and reading) and the chained tasks of hand washing and dressing for young students with mild to severe disabilities. **Considerations:** Student does not have to wait for a prompt. Procedure is relatively easy to use. Must use probes to determine when to fade. **Recommended Use:** During early to late acquisition phase. Seems to work well when student cannot use less intrusive prompts. Perhaps less useful in later stages of learning.

Figure 4-9

Commonly Used Response Prompt Systems and Considerations for Use

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Description of Prompt System	Supportive Research and Considerations for Use
System of Least Prompts (Increasing Assistance)	
• Select a response latency (a time delay between the moment something is initiated, and the moment one of its effects begins or becomes detectable) and two to four different prompts that suit student and task; arrange prompts in an order from least assistance to most assistance (e.g., verbal, verbal 1 model, verbal 1 physical). • Student is asked to perform the task and allowed the latency to respond. • Whenever a correct response (or a prompted correct) is made, reinforcement is given and the next training set/trial provided. • If student makes an error or no response, the first prompt in the hierarchy is given and the latency waited. If the student again makes an error or no response, the next prompt is given and the latency provided, and so on through the last level of prompt. • Errors are interrupted with the next prompt. • The last prompt should be adequate to produce a response. • Prompt fading generally occurs as students learn to respond to less intrusive prompt and then become independent.	**Supportive Research:** Extensive with both discrete and chained tasks; less support with student who have multiple, severe disabilities and with basic self-care tasks. In comparisons with delay, outcomes are the same or less efficient (errors, time to criterion, etc.). More efficient to use a prescriptive (individually suited) set of prompts than the traditional three (verbal, model, physical) but may be more difficult for staff. **Considerations:** While hierarchies of verbal, model, and physical prompts are most prevalent, many options for simpler hierarchies exist (gestural, gestural + partial physical, gestural + full physical). Requires a lot of practice to use consistently but versatile across tasks. May be intrusive and stigmatizing. Some question the amount of time between task stimuli and responding and the change of response modalities across different prompts. Can be used with forward or backward chaining or when a total task format is used. **Recommended Use:** If learning is in acquisition, avoid more than two levels of prompt. If learning is in fluency stage, this is more efficient than decreasing assistance. Reduce intrusiveness of prompts for use in later learning phases.

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Figure 4-9

Commonly Used Response Prompt Systems and Considerations for Use

Description of Prompt System	Supportive Research and Considerations for Use
Progressive Time Delay	
• Similar to constant delay, except delay interval is gradually increased from 0 to 8 or more seconds. • Determine delay levels and how many trials will be given at each level; plan error approach. • During initial requests to respond, the prompt is given at the same time as the request (0-second delay), making early trials look like simultaneous prompting. • After a trial, several trials, or session(s), the delay between the task request and the prompt is lengthened by 1- to 2 seconds increments up to 8 (or more) seconds, where delay remains until student learns. • Errors and corrects are handled as in constant delay, except delay may be reduced partially or completely when errors occur and then increased gradually or quickly when prompted correct responding returns. • Response fading is part of the procedure as students learn that anticipating the delayed prompt enables faster reinforcement and/or completion of the task.	**Supportive Research:** Extensive support for discrete tasks; good for chained task across a range of students with disabilities and tasks. **Considerations:** Same as for constant delay. Progressive is more difficult to use, particularly with chained tasks. Reducing and then increasing delay for repeated errors is also complex. Produces fast learning with few errors. Better than constant delay for students who have difficulty waiting because the delay is gradually increased and the ability to wait is shaped. Can be used with forward or backward chaining or when a total task format is used. **Recommended Use:** During early to late acquisition; good with chained or discrete tasks; equally effective with constant delay but less easy to use; more efficient than increasing assistance system.

Figure 4-9

Commonly Used Response Prompt Systems and Considerations for Use

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Description of Prompt System	Supportive Research and Considerations for Use
Most to Least Prompt Hierarchy (Decreasing Assistance)	
• Select a response latency and two to four different prompts that suit student and task; arrange prompts in an order from most assistance to least (e.g., verbal 1 physical, verbal 1 model, verbal). • The first prompt should be adequate to produce a response. • Determine the criterion for progressing to a less intrusive prompt (e.g., so many minutes of training at each level, a certain number of corrects in a row). • Student is asked to perform the task and allowed the latency to respond. Whenever a correct response (or a prompted correct) is made, reinforcement is given, and the next training step/trial is provided. • Prompt fading generally occurs when teachers substitute less intrusive prompts for more intrusive ones and student learn to respond to less intrusive prompts and then become independent.	**Supportive Research**: Convincing support for use with students having severe disabilities and a rage of skills (self-care, mobility, following directions). **Considerations**: Teachers must plan how to fade prompts and implement these plans, or students may become prompt dependent. Can be used with forward or backward chaining or when a total task format is used. **Recommended Use:** Better for teaching basic skills in acquisition than a least-to-most system. Works well when student cannot use less intrusive prompts (e.g., cannot follow verbal direction, imitate, or does not wait for prompts) and makes many errors. Good when target task is chained and requires fluent movement. Less useful in later stages of learning.

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Figure 4-9

Commonly Used Response Prompt Systems and Considerations for Use

Description of Prompt System	Supportive Research and Considerations for Use
Graduated Guidance	
• Select a general procedure to use: (a) Gradually lighten physical assistance from full hand over hand, to partial, to light touch, to shadowing. Shadowing means that the teacher's hands are close to the student's involved body part (hand, mouth arm) but not in contact, ready to assist if needed. (b) Hand-to-shoulder fading, which uses a full physical prompt applied at the hand and then faded to the wrist, the forearm, the elbow, the upper arm, the shoulder, and then to shadowing; hand-to shoulder fading has been accompanied by ongoing verbal praise and tactile reinforcement, with concrete reinforcers given at the end of a task chain. (c) Reducing the amount of pressure from initial full hand-over-hand assistance, to two-finger assistance, to one-finger guiding, and then shadowing. • Prompts are delivered simultaneously with task request, and the student's movements through the task are continuous. • Develop a plan to fade prompts. Begin fading when there is evidence that student can perform with less assistance; (a) sensing the student's assistance with the response through tactile cues, (b) improved performance (less help or no help) during probe or test trials, (c) student initiates the task, or (d) what seems like an adequate amount of training. • Prompts are arranged roughly in an order from requiring more student skill to be effective to requiring less student skill.	**Supportive Research:** Supported by mostly older, research in institutional groups and self-care tasks with intensive training methods. Several more recent school applications (Denny, Marchand-Martella, Martella, & Reilly, 2000: Reese & Snell, 1990). **Considerations:** Typically used with chained tasks, a total task format, no latency, and intensive training, but can be used without intensive training. Latency may be used to help judge when fading is appropriate (Reese & Snell, 1990). While procedure is not complex (physical prompts only and then fading), it requires many teacher judgments about when to fade prompts; may not be systematic. Prompts may be faded too quickly causing errors. Can be highly intrusive because only physical prompts are used. **Recommended Use:** Use during early to later acquisition only and after other, less intrusive systems have not worked.

From Mark Wolery, Melinda Jones Ault, & Patricia Munson Doyle *Teaching Students With Moderate To* Severe Disabilities: Use Of Response Prompting Strategies
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Fading Prompts

Increasing learner independence is the instructional goal for every student. Once a student has learned the skills necessary to complete a specific task or activity with using prompts or a prompt system, TEs should gradually fade their prompts toward independence. In order to reach independence, prompts will need to be system-atically faded so they become less and less needed by the student, until they are no longer used by the student to demonstrate mastery of a skill. The TET must plan for prompt fading as part of their student's instructional plan.

Suggestions to fade prompts:

1. After giving task direction, WAIT for student to respond without help.
2. After a prompt is given, WAIT for student to respond to the given prompt.
3. Increase the time you WAIT for the response as student gains skill.
4. Reinforce after each response but especially with increased independence. "Terrific, you did it by yourself."

Using Prompts for Alt-MSA

For Alt-MSA purposes, if the student is not at the independent instructional level, prompt(s) are allowable on Mastery Artifacts for a student **to elicit a response** based on what was observed during instruction. For each Mastery Objective, the test examiner selects and provides one least intrusive prompt type, which has the highest probability or likelihood of eliciting a response. The one prompt type selected per artifact may be a verbal, gesture, model, partial physical or full physical prompt. Within the artifact, only one prompt per test item is allowed with a maximum of 5 prompts in total for the artifact. The examiner does NOT go through a hierarchy of prompts; unless that student requires a full physical prompt (see page 4-33 on the use of full physical prompts).

FAQ

Q: If a student asks for the directions to be re-read is this considered a verbal prompt?

A: MSDE would not consider this a prompt, since the student is only requesting directions to be re-read.

Prompts used on mastery artifacts can only be used to **elicit a response** and not provide the correct answer

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Prompts used during Post Instruction Testing (Mastery) per Mastery Objective:
Only 1 prompt **allowed per test item** with a maximum of 5 prompts in total for any artifact.

- If 1 test item is provided; only 1 prompt <u>in total</u> is allowed.
- If 2 test items are provided; only 2 prompts <u>in total</u> are allowed (one per test item).
- If 3 test items are provided; only 3 prompts <u>in total</u> are allowed (one per test item).
- If 4 test items are provided; only 4 prompts <u>in total</u> are allowed (one per test item).
- If 5 test items are provided; only 5 prompts <u>in total</u> are allowed (one per test item).
- If 6 or more test items are provided; only 5 prompts <u>in total</u> are allowed (one per test item for up to 5 items).
- **If more than two prompts are given to the student across test items, the same prompt type must be used for all allowable prompted test items.**
  An exception is made for a student using full physical, who may respond using a less intrusive prompt on any of the test items given on a mastery data chart artifact.
- There is a maximum of 5 prompts in total for any artifact.
- If more than the allowable prompts are used on any given test item or total artifact, the TE can choose to return to instruction to fade prompts or the artifact can be submitted for scoring and will be scored with a zero or condition code for over prompting.
- If more than 1 prompt is used on a Mastery Artifact, indicate the specific test item(s) where the prompt was used.

Allowable Number of Prompts During Post Instruction Testing

Testing Demonstrations Per MO	Number of Prompts Allowed (in total)
1	1
2	2
3	3
4	4
5	5
6 or more	5

The least intrusive prompt must be selected <u>during post instruction testing</u> (Mastery). The least intrusive prompt, if deemed necessary, should not be decided until after instruction has occurred, for only during repeated instructional sessions will the TE know the type of prompt that is the least intrusive but with the highest probability to elicit a response.

The TE is required to identify the selected type of prompt to be used on the artifact. It can either be a verbal (V), gesture (G), model (M), partial physical (PP), or full physical (FP) prompt. Only one type can be used for the 5 allowed maximum prompts.

Prompting Used During Assessment

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During post instruction, a TE must not prompt a student for a correct response. Examples include the student selecting an answer choice which is incorrect while the TE gives a gestural prompt towards the correct answer, or the TE activates the AT device to indicate the correct response when they should only demonstrate the use of the AT device.

Prompt Types and Examples for Completing a Mastery Task

Independent:

> **Example:** Given a task where the student is asked to "Touch the square", the student touches the square with no assistance from the teacher.

Verbal:

> Paraphrasing directions, giving hints, clues or additional examples are considered verbal prompts.
>
> **Example:** "Where is the square? A square has four sides."

Gesture:

> The teacher moves his/her fingers, hand, or arm to prompt the student, or he/she makes a facial expression that communicates specific information to the student.
>
> **Example:** Teacher taps the area where the answer choices are displayed.

Model:

> The teacher demonstrates the target response the student is expected to imitate.
>
> **Example:** The teacher shows and touches a square that is different in some way (color, size, etc.) than the square in the answer choices.

Partial Physical:

> This level of prompt requires the teacher to briefly touch, tap, nudge, lightly pull or push the student's hand, arm, leg, trunk, jaw, etc. to initiate a response.
>
> **Example:** If the student isn't moving to touch the square, the teacher might rub the students hand to stimulate movement of the hand toward the answer choices.

Full Physical:

> Full guidance through a task, often involving hand over hand assistance.
>
> **Example:** Teacher guides student's hand to touch the square.

The TE can select a different type of prompt (verbal, gesture, model, partial physical and full physical) for each artifact based on "a single prompt that suits the skill, setting, and the student's preferences, abilities, and state of learning for each mastery objective" *(Wolery et al., 1992). (Page 136 Snell & Brown.)* In creating the task format, it is essential to use materials that give the student a fair opportunity to be independent. For example, to use materials that require a motor response the student cannot make is not a fair opportunity. Instead, the format should be redesigned perhaps with assistive technology the student can learn to activate.

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For each test item on an artifact, the TE provides the task demand and begins the wait time (latency period).

- If the student responds correctly, the TE marks the test item as correct independent and the test item is complete. If there is another test item, the TE moves on.

- If the student responds incorrectly, the TE marks the test item as incorrect and the test item is complete. If there is another test item, the TE moves on.

- If the student does not respond within the response latency, then the TE provides the selected prompt.

- If the student responds correctly after the selected prompt is provided, the TE marks the test item as correct with selected prompt and the test item is complete. If there is another test item, the TE moves on.

- If the student responds incorrectly after the selected prompt is provided, the TE marks the test item as incorrect with selected prompt and the test item is complete. If there is another test item, the TE moves on.

- If the student does not respond after the selected prompt is provided, the TE marks the test item as no response (NR) with selected prompt and the test item is complete. If there is another test item, the TE moves on.

- Remember: A maximum of 5 prompts in total for any artifact.

Overprompting During Assessment

When setting up artifacts for students, TEs need to be cautious that the questions or presentation of the test items do not cue the student to the correct answer. This could be considered overprompting and yield a condition code. Examples include, but are not limited to:

- Color coding the correct answer

- Bolding or highlighting a word(s) or phrases in the test question or supporting materials

- Using the exact same PCS/picture/word in a test question and answer choice.

Documenting the Need for Full Physical Prompting

To document the need for full physical prompts for a Mastery Objective, the least to most prompt instructional procedures described and illustrated in Figure 6-2 is required. Teachers must show that over a **minimum of ten days,** the student was taught using the system of least prompts for each task direction given. There must be at least 12 sessions indicated on a data chart for a student requiring full physical (1 baseline session, 10 instructional sessions and 1 mastery session).

TETs must also explore a full range of assistive technologies to support student learning and demonstration of skills. A data collection form that may be used for this purpose is shown in Figures 6-8 through 6-10. Documentation of instruction on the use of at least two or more assistive technology devices must be included on the full physical data chart, if stated the student needs full physical prompts. During each opportunity for learning the task direction given, the student should be presented with an AT device that may assist him/her with access to the task. The TE should try each device in a variety of ways with the student to determine the most appropriate response mode (e.g., using right hand, left hand, and head). This will allow the TET to determine if it is absolutely necessary to provide a full physical prompt to

the student. Or, can the student, in fact, use an AT device without full physical prompt to support the student when responding to an MO task direction as independently as possible. The TE would use the least to most prompt hierarchy for each assistive technology device explored. A data collection form that may be used for this purpose is shown in figure 6-11, 6-12. Documentation of instruction on the use of assistive technologies must be included in the portfolio if it is stated that the student needs full physical prompts. If a TET has already explored the full range of assistive technology through a student assistive technology evaluation and the IEP team has determined that the student is most successful with using **one** assistive technology mode/device, then the TET may complete the Assistive Technology Verification Form in Section 7 of the Alt-MSA Handbook.

The TETs are cautioned not to use a full physical prompt on all mastery artifacts as a "safety measure" for ensuring a student demonstrates mastery. Every effort should be made to fade full physical prompting to a less intrusive prompt. Continuous prompting of the most intrusive prompt for a student and unnecessary prompting can adversely impact the student's ability to function independently. While initially a student may require a full physical prompt to perform a skill during instruction, through the various teaching strategies used for a student, the goal is to get the student to perform the skill as independently as possible. Therefore, TETs are encouraged to identify a mode of student response for the MO that does not require full physical prompts.

Remember to set up the task so the student has a fair opportunity to make an independent response. A student with limited use of their hands does not have a fair opportunity if the task requires a fine motor response (e.g., to point to a picture). Providing full physical assistance to this student to make the response is not teaching. Instead, an alternative response can be used in the task format. For example, the pictures may be placed on a plexiglass board so the student can respond with eye gaze. Or, they might be presented on a computer and the student given a scanner switch that can be activated with a body part that is more easily controlled without assistance (e.g., head switch).

Use of Full Physical Prompts:

The most intrusive prompt that can be selected is full physical (FP). Any TE who selects to use a FP prompt on mastery is required to use the FP data chart showing 10 days of instruction with the use of varying Assistive Technology (AT) devices.

For those students using full physical, the TET is required to use the "Least to Most Prompt Hierarchy" system, which is shown here in the line segment example for a student: For example, if the task is for the student to draw a line segment from point to point, the prompts might be as follows:

- Teacher says: "Draw a line segment." (not a prompt this is a task direction) ...
    - (Wait to see if the student makes the response independently; if not, go to verbal prompt.)
- Teacher says: "Start on the first point and make a line to the next point." (verbal prompt) ...
    - (Wait to see if student makes the response; if not, go to gesture prompt.)

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- Teacher says: "Here is the first point (Teacher points to first point). Draw from here (gesture prompt) ...
  - (Wait to see if the student makes the response; if not, go to model prompt.)
- Teacher says: ''I'll show you how to draw it (Teacher draws a segment using different materials or draws and erases it on student materials); Now you try." (model prompt) ...
  - (Wait to see if the student makes the response; if not, go to partial physical.)
- Teacher says: "I'll help you get started" (Teacher guides student's hand to begin drawing the line segment; releases hand so student completes the line segment.) (partial physical) ...
  - (Allow the student to try to finish the response; if student does not, go to full physical prompt.)
- Teacher says: "Let's do it together" (Teacher guides student's hand to draw the line segment from point to point.)

Note: If the student is not able to observe the gesture or model (visual impairment), omit these prompts. For students with hearing impairments, the verbal directions would be signed. For students who are not able to use a pencil or other marker, this would not be an appropriate format for this task. Instead, the task can be set up with computer software so the student can use a switch or other adaptation to create a line segment. The prompting would then focus on activating the switch as follows:

- Teacher says: "Draw a line segment." (not a prompt this is a task direction) ...
  - (Wait to see if the student gives the response without help; if not, go to verbal prompt.)
- Teacher says: "Use your switch to select the line segment." (verbal prompt) ...
  - (Wait to see if student gives the response; if not, go to gesture prompt.)
- Teacher says: "Here is the line segment (Teacher points to icon on computer screen). Scan to here (gesture prompt) ...
  - (Wait to see if the student gives the response; if not, go to model prompt.)
- Teacher says: ''I'll show you how to do it (Teacher scans to line segment; hits switch to create it; then deletes it); Now you try." (model prompt) ...
  - (Wait to see if the student gives the response; if not, go to partial physical.)
- Teacher says: ''I'll help you get started" (Teacher guides student's hand to begin scanning; releases hand so student completes the line segment.) (partial physical)
  - (Be sure to allow the student to try to finish the response; if student does not, go to full physical prompt.)
- Teacher says: "Let's do it together" (Teacher guides student's hand to scan and select line segment.) (full physical)

A mastery artifact documenting the "full physical" prompt level was provided will not be scored "Mastered" unless the need for full physical prompting is consistent with what is documented in the student's current IEP. **A copy of the complete IEP for the**

current assessment year must be included in the portfolio of a student who is using full physical prompting. Any medical documentation that supports the need to use full physical prompting should be included. In addition, documentation must be included with the artifact that clearly demonstrates consistent instruction to reduce the need for full physical prompts, including the use of two or more assistive technologies that were fully explored and implemented consistently during the test window. If the student has a single identified communication response mode/device established then the AT Form may be used.

Least to Most Prompt Hierarchy for a Student using Full Physical Prompting

When using a least to most prompt hierarchy, the goal is to let the student attempt the task before the TE intervenes with assistance. The amount of prompting increases until the student performs the behavior. The goal during instruction is to elicit a correct response. Before instruction begins the TE needs to establish a sequence of prompts ranging from least to most intrusive to implement the least to most prompt hierarchy.

Prior to instruction the TE determines how long the student's response latency or wait time will be before moving to the next prompt. For Alt-MSA purposes it is recommended that the TE select a 3-8 second wait time. Determining this time is based on the individual student and should be long enough for the student to begin responding, but not so long that the student loses focus on the task. Usually, unlimited wait time is not appropriate or feasible.

It is assumed the TE will provide the entire prompt hierarchy each time a task demand is provided. More intrusive levels of prompting should be used only after less intrusive prompts are proven to be ineffective. As the student experiences success, again prompts should be consistently faded by waiting longer for the student to begin responding AND praising the student for performing the response with less assistance than previously needed. Remember also to shape attempts to be independent by praising approximations of the response (e.g., the student reads the first word of the phrase.)

If full physical prompting was selected but the student achieves mastery within the prompting hierarchy at a less intrusive level, the TE should cross out full physical on the data chart and write in the prompt level used.

Use of Assistive Technology

IDEA 2004 defines AT 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" [IDEA, 2004, Part B, Section 612, (1)]. AT devices include items such as mobility and positioning systems, voice output communication devices, and adaptive computer access tools. The definition also includes a range of common tools that were not designed as AT (calculator, and instructional software such as content outlining that helps students organize ideas), but are still accepted as AT, if they impact the student's functional capability. Functional capability is the ability to participate in tasks of learning and daily living as independently as possible.

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Assistive technology (AT) is a term that covers a full range of tools and devices—from no-tech options to high-tech, sophisticated electronic devices—that assists students in accomplishing the educational tasks required within his or her curriculum. The goal is to identify the technology/device that provides the student with access to the general education curriculum as well as their individually defined special education program based on their needs and learning style preferences. The best choice is often the least complex tool.

"Low-tech" devices. In general, these are non-electronic tools that are often found in classrooms. Examples include pencil grips, raised line paper, hand held magnifiers, masks (made out of card stock that are used to reduce the amount of information on a printed page), color coding, adapted spoon handles, kitchen timer, study carrel, slant top surface, eye gaze frame, communication systems with pictures/words/objects (picture communication symbols (PCS), etc. **For Alt-MSA purposes picture communication symbols with words and pictures with words are interchangeable for written words for those students who require the use of low-tech assistive technology.**

"Medium-tech" devices. In general, these are mechanical devices that are not particularly complicated to use. Examples include switch-operated appliances, calculators, audio books, talking watch, simple voice output devices, etc.

"High-tech" devices. In general, these are sophisticated devices that incorporate electronics and/or computers. Examples include speech recognition programs, electronic communication devices, live captioning, lap top computers, intellikeys, etc.

If a student does **not** have a reliable response mode at the start of the school year, the first step is to request your county's assistive technology team to evaluate the student's capabilities and recommend a response mode to be taught to the student. Then, it is the instructional team's responsibility to teach the response mode so that the student has a reliable means to demonstrate what the student knows and can do, as well as communicate wants, needs, or make requests. When a reliable, consistent response mode has been taught, the teacher will have confidence that the content of each objective is being mastered.

The student's educational team should brainstorm Low-Medium-High-Tech TOOLS and STRATEGIES to complete tasks across environments. The outcome of your brainstorm should include a discussion to; (1) identify options for overcoming barriers; (2) identify ways to maintain critical elements of tasks and (3) consider the least complex solutions that will remove the barrier. If the team is not sure about what specific tool is needed, describe what the tool needs to do for the student (e.g. speak printed words, produce enlarged font, or provide picture support) so that the team can find tools with those features and conduct trials in order to determine the most appropriate option.

For students who need to use medium tech or high tech assistive technology devices in order to respond to task directions for any given MO, it is imperative that they have been taught a consistent and reliable response mode with that device (e.g., picture symbols on augmentative devices, head pointer, various types of switches, joy stick, a track ball) prior to instruction on the MOs.

As described in the Alt-MSA Online Teacher User Guide, **the TE will check the AT box on the Edit Mastery Objective page online, if the student requires the use of a medium tech or high tech AT device to complete the task**. It would not be necessary to check this AT box if you are using no tech or low tech tools. The student will use the most appropriate AT for that student in the assessment of an MO, no matter what AT is used, however, the student must have a minimum of 2 choices presented: the correct answer and at least one distracter. The corresponding artifact must make clear the type of AT employed. **If it is stated that the student needs full physical prompts, documentation of instruction on the use of an assortment of assistive technologies, using various locations for access with the student must be included in the portfolio on the data sheet.** Follow the requirements described in the section above for this documentation.

A student who has an established AT system that has been documented in the IEP and supported by the assistive technology team and/or speech and language pathologist for that student, can document the established AT system that the student uses on the Full Physical AT Verification Form found in Part 7 of the Handbook. However, the requirement for TE to show that over a **minimum of 10 days**, the student was taught using the system of least prompts for each task direction given is still required for the device documented.

If the TE did not check the AT box at the time of selecting/creating the MOs, and during instruction and the assessment process they have determined that the student does, in fact, r**equire medium or high tech AT to demonstrate learning of the task direction**, then the TE should inform their principal and STC of this need. The TE would then write the following statement on each applicable artifact: *"It was determined during instruction that the student does require medium or high tech Assistive Technology to demonstrate mastery of the task direction."* If the TE checked the AT box at the time of selecting/creating the MOs, and during instruction and the assessment process they have determined that the student **no longer requires the use of medium or high tech AT to demonstrate learning of the task direction**, then the TE should inform their principal and STC of this change. The TE would then write the following statement on each applicable artifact: *"It was determined during instruction that the student no longer requires the use of medium or high tech Assistive Technology to demonstrate mastery of the task direction."*

When planning for instruction and Alt-MSA using AT, it is important to remember that your goal is not to teach technology in isolation or to put the AT in front of the student for the first time during the assessment of an MO, but to use technology as an integral component of a well designed instructional program throughout the student's day.

When a student requires medium or high tech AT to demonstrate mastery for an MO, the TE will be required to observe this transitory behavior and record student responses using a data chart or video artifact.

FAQ:

Q: Can TEs use an AT device to produce student work through interaction with a computer? For example, a student's baseline and mastery artifacts are scanned into Kurzweil and the student does instruction on the computer. Are printouts of students work from Kurzweil acceptable for artifacts?

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FAQ

Q: Does the AT Verification Form need to be used to document any AT device used or only for students requiring full physical prompts?

A: AT Verification Form is only used for those students who require full physical prompt. Others can check the AT box when creating MOs within Alt-MSA Online.

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A. Yes, the student can use Kurzweil to produce work on the Alt-MSA Artifact. Any AT device or computer software program that allows the student to access the instructional material in order to respond to questions on the content being assessed, such as Clicker, Kidspiration, MS Word-tool/forms, Classroom Suite, Inspiration, Pixwriter, Smart board and Word Processor, are all allowable to use on Alt-MSA. When using these devices or software programs, the TE will need to write on the artifact (print out document) what type of device or computer software program was used in order to produce the work of the student. The print out MUST include all artifact requirements in order to be considered an artifact and scored.

Aligning Grade-Level Content to Daily Instruction and Assessment

Federal regulations mandate that students with disabilities must access general curriculum and their assessments be aligned with grade-level content standards in reading and mathematics.

- Identifying outcomes in reading and mathematics for students participating in Alt-MSA, what students must know and be able to do, will shape reading and mathematics instruction.
- The MOs the TET select or write facilitate instruction and assessment that is aligned with general curriculum and modified grade-level content.
- Linking the instruction of reading and mathematics to science and other content areas will support student mastery of the reading and mathematics objectives.
- Other content areas such as science, social studies, art, music, health, physical education, and career/vocational education provide students the context that will promote learning of reading and mathematics skills.

Identifying links to other content areas when the TET is writing MOs will facilitate instruction and assessment of reading and mathematics throughout the school day.

- Test examiners should become familiar with grade-level curriculum, materials, and learning activities that same age and grade peers are using.
- Use the grade-level content standards that correspond to your students' grade levels to identify topics for instruction and assessment.

For additional information on aligning grade-level content to daily instruction and assessment, please refer to the Alt-MSA Professional Development Online Training Modules.

The SC/CLG is the document that aligns the Maryland Content Standards and the Maryland Assessment Program. The curriculum documents are formatted so that each begins with content standards or broad, measurable statements about what students should know and be able to do. Indicator statements provide the next level of specificity and begin to narrow the focus for teachers. Finally, the objectives provide teachers with very clear information about what specific learning should occur. See Figure 4-10 for an example of the SC and www.mdk12.org for the document.

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Figure 4-10

Using the SC: Science, Grade 5

Skills and Processes	**EARTH/SPACE**	Life	Chemistry	Physics	Environmental

Standard 2.0 Earth/Space Science

Students will use scientific skills and processes to explain the chemical and physical interactions (i.e., natural forces and cycles, transfer of energy) of the environment, Earth, and the universe that occur over time.

TOPIC
D. ASTRONOMY

2.D.2.b

INDICATOR
2. Recognize and describe the causes of the repeating patterns of celestial events.

OBJECTIVES
a. Describe the rotation of the planet Earth on its axis.
b. Recognize and describe that the rotation of planet Earth produces observable effects

- The day and night cycle.
- The apparent movement of the sun, moon, planets, and stars

Maryland provides Toolkits in reading, mathematics and science located on the www.mdk12.org website.

- The Toolkits are resources created by Maryland teachers that align with mathematics, reading and science curricula found in the SC, which offers instructional support in the content areas.

- Detailed explanations of skills that emphasize their interrelatedness aid a teacher's understanding of the complexity of curricula instruction. Ideas for lessons and student work samples can be located in the Toolkits to assist a teacher with both short and long range planning.

- Alt-MSA TEs should use the Toolkits to understand specific terminology to understand skills taught in the SC. TE will also find information on how these specific skills are taught in sample lessons and to see examples of how an artifact may be developed by using the assessment samples and then modifying and adapting the sample to align to a Mastery Objective that meets an individual student's instructional needs using the age and grade appropriate materials from the instructional lessons presented.

Planning for Reading Instruction using the Toolkit
- *Clarification*: Clarifications are found at the indicator level and is a detailed explanation of an indicator that addresses each objective embedded within the indicator. The clarification focuses on the building of reading skills and their dependency upon each other.
- *Public Release Items:* Items for all assessments have been released for public viewing and use. Releasing items is one step to ensure that schools, districts, and other stakeholders understand how the content standards are assessed on these assess-

Best Practices for Motivating Students:

Something I used to motivate our students as well as keep the teachers organized during instruction and artifact collection was a student progress chart. I listed each student's name on a chart, with 20 columns next to each name, we put stickers with motivational sayings such as, "I'm proud of you!" all over it, laminated it, and hung it on the fridge. Each time a student mastered a MO, they got to put a star next to their name under reading or mathematics. When they mastered 20 MOs, they earned a special treat and we had a party. This was highly effective in motivating students to put forth their best effort. It also helped the teachers visualize where we were in the process, and kept us on schedule. I'll definitely use it again next year!

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ments. **Alt-MSA teachers can use these samples to get ideas in how to create artifacts that align to Mastery Objectives by adapting and modifying the item to meet individual student needs using age and grade appropriate materials on an artifact.**

- *Lesson Seed:* A lesson seed is found at the objective level and is an idea for a lesson. The seed is directly aligned with an objective and ranges in cognitive demand. The sequential development of the lesson idea may begin at a lower level of cognitive demand and then evolve into a higher level of cognitive demand. Teachers may use the entire seed or only a portion of a seed based upon the capability of their classes. **Alt-MSA teachers can use these lesson samples to get ideas for lessons and then adapt and modify the lesson to meet individual student needs using age and grade appropriate materials as well as low, med and high assistive technology.**

- S*ample Assessment:* A sample assessment is found at the objective level and contains three components. There is a passage, a BCR written to that specific objective, and annotated student responses. **Alt-MSA teachers can use these samples to get ideas in how to create artifacts that align to Mastery Objectives by adapting and modifying the sample to meet individual student needs using age and grade appropriate materials. It may assist the teacher in how to set up an artifact that aligns to a specific skill.**

Planning for Mathematics Instruction using the Toolkit

- *Clarifications*: Each clarification provides an explanation of an indicator/objective to help teachers better understand the skills and/or concepts.

- *Lesson Plans*: The lesson plans have been juried by Maryland educators and could be used when teaching this concept. **Alt-MSA teachers can use these lesson samples to get ideas for lessons and then adapt and modify the lesson to meet individual student needs using age and grade appropriate materials as well as low, med and high assistive technology.**

- *Lesson Seeds*: The lesson seeds are ideas for the indicator/objective that can be used to build a lesson. Lesson seeds are not meant to be all-inclusive, nor are they substitutes for instruction. **Alt-MSA teachers can use these lesson samples to get ideas for lessons and then adapt and modify the lesson to meet individual student needs using age and grade appropriate materials as well as low, med and high assistive technology.**

- *Sample Assessments*: Each sample assessment item gives an idea of how an assessment item on the Maryland School Assessment (MSA) might be presented. The items appropriately measure the content of the SC and may be formatted similarly to those appearing on the MSA; however, these are sample items only and have not appeared on any MSA form. Alt-MSA teachers can use these samples to get ideas in how to create artifacts that align to mastery objectives by adapting and modifying artifacts to meet individual student needs using age and grade appropriate materials.

- *Prerequisite Skills*: The prerequisite skills describe what concepts a student needs to understand before working on this concept.

- *Higher Order Thinking Skills*: The higher order thinking skills shows examples of questions for this concept at various levels of cognitive demand.
- *Technology*: This tool suggests ways technology may be used to enhance the teaching of this concept.
- *Resources*: This tool shows resource links to websites that offer instructional resources.
- *Public Release Item:* Public Release items for all assessments have been released for public viewing and use. Releasing items is one step to ensure that schools, districts, and other stakeholders understand how the content standards are assessed on these assessments. **Alt-MSA teachers can use these samples to get ideas in how to create artifacts that align to Mastery Objectives by adapting and modifying artifacts to meet individual student needs using age and grade appropriate materials.**
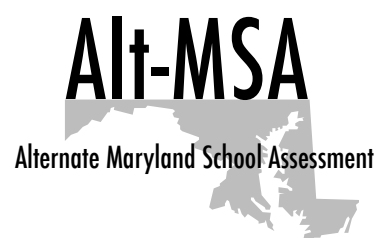
Planning for Science Instruction using the Toolkit
- *Clarifications*: Each clarification provides an explanation of an indicator/objective to help teachers better understand the skills and/or concepts.
- *Lesson Seeds*: The lesson seeds are ideas for the indicator/objective that can be used to build a lesson. Lesson seeds are not meant to be all-inclusive, nor are they substitutes for instruction. **Alt-MSA teachers can use these lesson seeds to get ideas for lessons and then adapt and modify the lesson to meet individual student needs using age and grade appropriate materials.**
- *Resources*: This tool shows resource links to websites that offer instructional resources.
- *Public Release Item*: Public Release items for all assessments have been released for public viewing and use. Releasing items is one step to ensure that schools, districts, and other stakeholders understand how the content standards are assessed on these assessments. **Alt-MSA teachers can use these samples to get ideas in how to create artifacts that align to Mastery Objectives by adapting and modifying artifacts to meet individual student needs using age and grade appropriate materials.**

Additional support resources and materials in planning instruction for students with significant cognitive disabilities in reading, mathematics and science are found in the Alt-MSA Online Resource Center. The resources will be built upon year to year to demonstrate how to adapt and modify instructional lessons and materials for implementing Alt-MSA.

Examples of ways in which grade-level content in reading and mathematics can be reflected in daily instruction and assessment appear in Figure 4-12. This figure illustrates the reading and mathematics content standards and topics that must be assessed and other content areas that are taught during the student's school day. Use the chart to identify content connections for MOs and opportunities to provide instruction in reading and mathematics. Figure 4-13 shows a completed example.

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Aligning the IEP and Alt-MSA to Daily Instruction

When planning instructional units and lessons, teachers need to consider the following:

- Are the skills being taught in the lesson measuring reading, mathematics or science?
- How do the skills link to the grade-level content standards/indicators/objectives?
- Can the skills be found on the IEP or Alt-MSA Test Document? If so, how will you collect the data to show progress and mastery?
- Do the skills link to functional skills appropriate to the student?
- Have you made the lesson meaningful to the student?
- What, if any, AT will the student need to most successfully access the lesson?

Writing the IEP to Support Attainment of Reading and Mathematics Content Standards

Students with significant cognitive disabilities need instruction that will support them in achieving the Maryland's Alternate Achievement Standards for reading, mathematics and science. While not all students with severe disabilities will learn to read or do mathematics and science as well as or like their non-disabled peers, all will benefit from learning chosen content within each grade level.

> *"I can't guarantee that every child with a disability will learn to read and write just because you provide accessible print materials in the environment, but I can guarantee that if you never provide children with disabilities the opportunity to learn, they won't"* --David Koppenhaver

The diagram below demonstrates the link between Content Standards, Classroom Instruction, Classroom Assessments and State & District Assessments.

Figure 4-11

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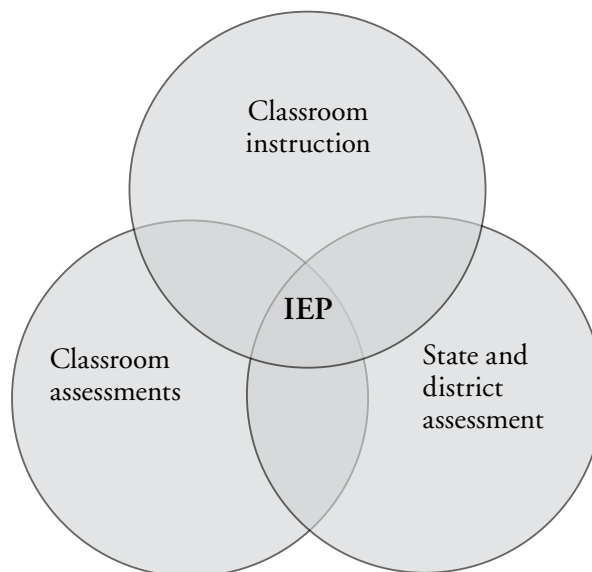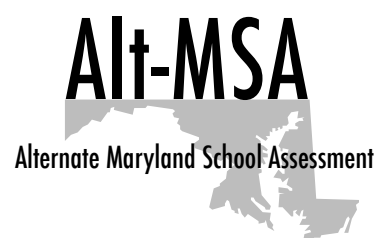
When developing an IEP for a student with severe cognitive disabilities, it is important for the IEP team to prioritize the individual student's needs. In order to make good IEP decisions that are meaningful to the student, the IEP team needs to review the following:

- Present Levels of Academic and Functional Performance
- Goals & Objectives
- IEP Progress Reports/Report Cards
- Previous Assessment Results
- Classroom observations
- Parent information/concerns

The IEP identifies a subset of objectives that will help the student with a disability access the general curriculum. The IEP team should consider the range of needs for the individual student in both academic and functional skills. Because skills in reading and mathematics are crucial for "access" to learning in all areas of life, the IEP team will select pertinent reading and mathematics objectives for each individual student. These skills are functional skills when applied to real experiences and everyday activities.

Access means more than being exposed to content in reading, mathematics, and science. "**Access" means making academic progress**. When teachers create opportunities for students to receive instruction in academic content, that is, finding new ways to include academics in real-life activities, which are purposeful to a student's educational growth, they are providing access for that student. Although it does not necessarily mean mastering all of the grade-level content, it does mean mastering some alternate achievement standards for each grade level. An *alternate achievement standard* is an expectation that differs from a grade level achievement standard, usually based on a limited sample of content that is linked to but does not fully represent grade level content. Therefore, it is important to keep in mind that not all educational goals link to academic content standards. It does mean that some goals are academic and have sufficient alignment to state standards to prepare students for the assessments required by federal mandates. ***Promoting access to the general education curriculum does not mean eliminating functional skills instruction, but it may mean incorporating new academic goals into daily instruction.***

The IEP team should also include objectives on the IEP that will assist the student in accessing other academic content (such as science) as well as the functional skills important for an individual student to learn. A list of those IEP skills that can be taught in the context of other content areas are found on page 4-44 of the Alt-MSA Handbook. It is likely that not all objectives on the IEP will be reading and mathematics and will therefore not be assessed in the Alt-MSA. The IEP team will need to decide how many academic goals should be on the IEP that are potentially the most meaningful. Some of these goals may be linked to the Alt-MSA Mastery Objectives selected for a student, specifically in reading and mathematics. IEP teams will need to remember, however, that there is no mandate that all tested academic skills (Alt-MSA Mastery Objectives) should appear in the IEP. The IEP is not designed to be an academic curriculum.

The Alt-MSA is designed to sample objectives from reading, mathematics and science

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content. Those objectives must be taught to students in meaningful contexts. These contexts include academic content areas as well as functional skills. Therefore, IEPs should not only include the academic skills for a student, but also those functional skills that are pertinent to the student, which may include personal management, community, recreation/social, career/vocational and communication/decision making and interpersonal skills. Some of these IEP Skills, such as personal management, feeding and behavior management are still very important and need to be addressed during a student's instructional program, but not in the context of curricular content. Other IEP skills such as matching, sequencing, choice making and increasing communication can be taught with multiple instructional activities that access general education academic content. Figure 4-11 illustrates the role of the IEP as a subset of objectives that foster access to a variety of learning experiences in academic content and functional skills.

Finally, the curriculum encompasses many skills other than those assessed in reading, mathematics, science and functional skills. These curriculum activities provide opportunities for learning modified grade level content and for communicating and interacting with non-disabled peers.

Instructional Teams for students with the most significant cognitive disabilities should:

- Ensure that the skills taught will enhance the student's independence in the next critical environment
- Ensure that the skills taught are embedded in natural routines and in socially acceptable contexts that are appropriate to the student
- Remember that not all skills taught will be assessed
- Ensure academic content is taught because it is "functional" and socially acceptable
- Presume that their student's are competent and not deprived of instruction taught to students of the same age that are non-disabled (grade level content standards and curriculum)

The following is a list of IEP skills that may be embedded into extended grade-level curriculum content that is taught using age-appropriate instructional activities:

Matching	Identifying calendar concepts
Sequencing	Using the computer
Activate switch(s)	Label objects/pictures/symbols
Following directions	Measure/pour/stir
Increase vocabulary	Time concepts
Following a task analysis	Word processing skills
Initiating communication	Ask relevant questions

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Making a choice	Identifying works in print
Number recognition	Responding appropriately
Grasp and Release	Increasing leisure skills
Answer Yes/No questions	Using a calculator
Counting	Count/sort/package
Making consistent response	Taking turns
Eye gaze	Identifying what comes next
Identifying pictures/symbols	Following a pattern
Identifying Same and Different	Writing sentences
Cause and effect	Counting using a jig
Identify coins/money concepts	Recognizing shapes
Answering "wh" questions	Problem solve
Making predictions	Read/follow a recipe
Using 1-1 correspondence	Fractions/percents
Following a schedule	Fill out a time card
Sorting/identifying color, shape, size	Classify/categorize
Recognizing name in print	Give descriptions
Printing name	*This list is not all inclusive - there are many other IEP skills that can be embedded into extended curricular activities.*
Improving writing legibility	
Addition/Subtraction	
Increasing time on task	

Creating an MO artifact that will meet the requirements of the alternate assessment and then developing an activity just for that artifact makes the assessment a separate event from the IEP and daily instruction, which becomes less meaningful for the student. However, having the student work within an established instructional program that accesses the general curriculum through the SC, IEP and county curriculum guides/frameworks throughout the year on a variety of content areas and skills, provides the student with a wide range of opportunities to learn and generalize the skills taught and mastered, therefore, presenting the TE with many pieces of work to choose from for the assessment.

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Continuously monitor student progress through data to determine if revisions to materials or instruction strategies are necessary.

Monitor Progress and Revise Materials and Strategies As Needed

As instruction continues and data are collected for the Alt-MSA, these data should be used to monitor student progress and revise materials and instructional strategies to assist the student in learning the skills for the Alt-MSA as well as other instructional objectives.

Instructional practices that may foster learning for students who are participating in the Alt-MSA include:

- providing assistive technologies to ensure the student has access to the curriculum materials that same grade and age peers have.
- learning and interacting with peers who may be participating in similar activities.
- involving the student in the development of the Alt-MSA, where appropriate, including making choices and solving problems.
- fostering student learning and independence by allowing the student to manipulate the instructional materials and be "in charge" of the MO demonstration, providing adequate "wait time" for student to respond, and decreasing unnecessary teacher intervention during the MO demonstration.
- fostering student independence by using the least intrusive prompts and support necessary and using supports that are typically available in the environment or setting where instruction occurs.
- linking reading and mathematics instruction to other taught or targeted outcome areas will more likely result in student mastery of the reading and mathematics objectives. Other content areas, such as science, social studies, art, music, health, and physical education, provide students and teachers the real-life, authentic context that will promote learning of reading and mathematics.

Figure 4-12

Connecting Reading, Mathematics, and Science Instruction to Student's Daily Schedule

	Reading	Math	Science	Art/Music	Physical Education	Health	Social Studies	Community/Career /Vocational
Reading Mastery Objectives								
Phonics/Sight Words MO 1–2								
Vocabulary MO 3–4								
Comprehension MO 5–6								
Informational Text MO 7–8								
Literary Text MO 9–10								
Math Mastery Objectives								
Algebra MO 1–2								
Geometry MO 3–4								
Measurement MO 5–6								
Data Analysis MO 7–8								
Number Sense MO 9–10								
Science Mastery Objectives								
Earth/Space Science MO 1								
Life Science MO 2								
Chemistry MO 3								

Figure 4-13

Completed Example of Connecting Reading and Mathematics Instruction to Student's Daily Schedule

	Reading	Math	Science	Art/Music	Physical Education	Health	Social Studies	Community/Career /Vocational
Reading Mastery Objectives								
Phonics/Sight Words MO 1–2	X	X	X	X	X	X	X	X
Vocabulary MO 3–4	X	X	X	X	X	X	X	X
Comprehension MO 5–6	X	X	X	X	X	X	X	X
Informational Text MO 7–8	X	X	X	X	X	X	X	X
Literary Text MO 9–10	X		X	X			X	X
Math Mastery Objectives								
Algebra MO 1–2		X	X	X				X
Geometry MO 3–4		X		X				X
Measurement MO 5–6		X	X	X	X	X		X
Data Analysis MO 7–8		X	X	X	X	X	X	X
Number Sense MO 9–10		X	X	X	X	X	X	X
Science Mastery Objectives								
Earth/Space Science MO 1	X	X	X		X			X
Life Science MO 2	X	X	X		X			X
Chemistry MO 3	X	X	X		X			X
Physics MO 4	X	X	X		X			X
Environmental Science MO 5	X	X	X		X			X