**Key Assessment 5A: Learning Goals & Pre/Post Assessment**

**Key Assessment 5B: Analysis of Student Learning**

**Key Assessment 5A: Learning Goals and Pre/Post Assessment**

***Student Instructions for Learning Goals and Pre/Post Assessment leading to the Teacher Work Sample:***

**Administration Point:** The Key Assessment 5 Committee envisions assessments 5A and 5B serving in the content methods course(s) within the program unit prior to student teaching. Assessments 5A and 5B are two separate assessments that may be split into two courses or may be used together within the same semester, along with Key Assessment 6: Design for Instruction.

**Purpose:** The pieces of the WKU Teacher Work Sample (TWS) included in this Assessment Knowledge package – Learning Goals & Pre/Post Assessment and Analysis of Student Learning – are performance-based assessment tools for teacher candidates to demonstrate their ability to plan, administer a standards-based instructional assessment sequence, and analyze student learning. WKU teacher candidates are required to show proficiency in designing learning goals with a corresponding pre/post assessment, and analysis pre/post and formative assessment data. Standards specifically related to this assessment (and scoring rubric) are listed below.

This key assessment enhances teacher candidates’ ability to accomplish the following:

* Learn to set appropriate learning outcomes for a unit.
* Create an assessment that is directly connected to learning goals in order to measure student learning.

Through this process, teacher candidates can further develop their skills to prepare themselves for a successful first year of teaching. While beginning candidates may not replicate all portions of this key assessment when designing every unit during their first years of teaching, the TWS from which this assessment was derived is a research-based model that, if followed, assists teachers in developing sound instructional experiences.

**Use:** The key components in the “Assessment Knowledge” package are used to measure candidates’ formative knowledge, specifically on learning goals development, assessment design, and analysis of data. As this and other key assessments are leading up to student teaching, candidates will apply this knowledge to their student-teaching experience. The key components will be applied again through the TWS and will determine whether candidates are ready to exit the WKU educator preparation program and be recommended for certification. For key assessments prior to student teaching, candidates receiving a holistic score of “1” will be required to repeat the key assessment until successful (scoring at least “2”) or will be advised out of the program; Candidates scoring “2” will be allowed to continue into the next level of the program.

**Kentucky Teacher Standards Assessed:**

1.2Connects content to life experiences of students

2.1 States learning objectives that reflect key concepts of the discipline and are aligned with local or state standards.

2.2 Uses contextual data to design instruction relevant to students.

3.1 Sets significant and challenging objectives for students and verbally/nonverbally.

5.1 Uses a variety of pre-assessments to establish baseline knowledge and skills for all students.

5.3 Uses a variety of summative assessments to measure student achievement.

**Tasks:**

1. **SET LEARNING GOALS**
   1. **List the 2 to 3 learning goals or outcomes** (use behavioral terms) that will be the focus of a unit of instruction.
      * These goals should define the expectation of what students should know and be able to do at the end of the unit.
      * The goals should be significant (reflect the big ideas or structure of the discipline) challenging, varied, and appropriate.
   2. **Identify the levels of the learning goals**.
      * The goals should be written using revised Bloom’s Taxonomy with at least one goal at or above the Analyzing level.
   3. **Show how the goals are aligned with local, state, or national standards**.
      * (Identify the source of the standards). If only parts of the standard are used, then bold that section.
   4. **Discuss why the learning goals are appropriate in terms of student needs.** Include the following:
      * Student prior knowledge
      * Student learning needs and/or developmental appropriateness
      * Authentic real-world connection
      * Any other connections that might be relevant (e.g., school improvement plan or curriculum map).
   5. **Establish Mastery Levels for each Learning Goal.** 
      * Establish levels of mastery for pre-post assessment that are mathematically possible and indicate high expectations (that is, not below the equivalent of 75% or 3 out of 4).
2. **CREATE PRE-/POST ASSESSMENT**
3. **Create an assessment with items connected to specific learning goals.**
   * Create an assessment to measure student learning of content based on specified learning goals.
   * Include multiple modes of assessment that requires the integration of knowledge, skills and/or reasoning ability are expected across the learning goals.
   * Do not use the same type of assessment measure for each goal. (in other words: All items should not be multiple choice or all essay)
4. **Include a copy of the pre/post assessment and the answer key after narrative or template.**
   * Pre/post assessment: Include a student ready copy of the assessment. Include student directions and criteria for judging student performance (e.g., scoring rubrics, observation checklists, rating scales, item weights, assessment blueprint).
   * Answer Key: List the correct answer, Learning Goal number, Bloom’s level, curriculum standard, number of points for each item and the performance level that represents mastery.Example: (LG 1, Analysis, SC3.4, 1 point, student must obtain a 3 out of 4 on a rubric for the short answer question.)
   * *Note: This assessment could be used to collect data to complete Key Assessment 5B: Analysis of Student Learning.*

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| **Key Assessment 5A: Learning Goals & Pre/Post Assessment Rubric**  **Scoring Guide** | | | | | | | |
| **CAEP** | **InTASC** | **KTS** | **Criteria** | **Beginning** | **Developing** | **Proficient** | **Exemplary** |
| **1.1**  **1.3**  **1.4** | **1,7** | **2.1** | **LGA 1**  List 2 to 3 learning goals | None of the learning goals are clear or logical for one or more of the following: learning outcomes, stated in behavioral terms, focused on the unit topic, appropriate for student abilities, and appropriate for content/curriculum | Only one clear learning goal provided  Or one of the 2 to 3 learning goals are not clear or logical for one or more of the following: learning outcomes, stated in behavioral terms, focused on the unit topic, appropriate for student abilities, and appropriate for content/curriculum. | 2 to 3 learning goals stated as clear, logical learning outcomes, stated in behavioral terms, focused on the unit topic, appropriate for student abilities, and appropriate for content/curriculum. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **D** | **2,3** | **3.1** | **LGA 2**  Levels of learning goals | Goals do not reflect revised Bloom’s Taxonomy with at least one goal at or above the Analyzing level. | Goals somewhat reflect revised Bloom’s Taxonomy with at least one goal at or above the Analyzing level. | Goals reflect revised Bloom’s Taxonomy with at least one goal at or above the Analyzing level. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **1.3**  **1.4** | **1,7** | **2.1** | **LGA 3**  Alignment of Learning Goals with standards | Not every learning goal is aligned with local, state or national standards Or content and Bloom’s levels are incorrect. | Each of the learning goals is not correctly and logically aligned with local, state or national standards in content and Bloom’s levels. Some standards are missing or incorrectly aligned with goals. | Each of the learning goals is correctly and logically aligned with local, state or national standards in content and Bloom’s levels. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **1.3**  **1.4** | **4,5**  **1,7** | **1.2**  **2.2** | **LGA 4**  Appropriateness of Learning Goals | Justification is missing for two goals  Or 2 or more justifications of the required areas in the prompt | Justification is missing for one goal  Or 3 or more justifications of the required areas in the prompt | Clear and logical justification in the 4 required areas for learning goal appropriateness: student prior knowledge, student learning needs and/or developmental appropriateness, authentic real world, and other relevant connections. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **D** | **2,3** | **3.1** | **LGA 5**  Mastery levels for each Learning Goal | Mastery level is not provided for each goal  Or it is not mathematically possible  Or indicates level that is too low for student abilities or discipline | Mastery level for each goal may not be mathematically possible or indicates lower expectations for student abilities or discipline | Mastery level for each goal is mathematically possible and indicates high expectations for student abilities or discipline | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **1.2** | **6** | **5.1**  **5.3** | **LGA 6**  Pre-post Assessment Blueprint: Learning Goals | All assessment items are not aligned to specific learning goals, correct level of Bloom’s, and content standard. | All assessment items are clearly and appropriately aligned to 2 of the following: specific learning goals, correct level of Bloom’s, and content standard. | All assessment items are clearly and appropriately aligned to specific learning goals, correct level of Bloom’s, and content standard. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **1.3**  **1.4** | **1,7** | **2.2** | **LGA 7**  Pre-post Assessment Blueprint: Adaptations | Description of adaptations does not meet the individual needs of students as described in the contextual factors or no description is provided. | Description of adaptations does not clearly meet the individual needs of students as described in the contextual factors or description is incomplete. | Clear, logical description of adaptations that meet the individual needs of students as described in the contextual factors | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **1.2** | **6** | **5.1**  **5.3** | **LGA 8**  Pre-post Assessment Blueprint: Modes of Assessments | The pre and post assessment represents only one mode or assessments do not integrate knowledge, skills and/or reasoning ability. | The pre and post assessment duplicates some modes or assessments do not require clear integration of knowledge, skills and/or reasoning ability. | The pre and post assessment includes multiple modes and requires the integration of knowledge, skills and/or reasoning ability. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **1.2** | **6** | **5.1** | **LGA 9**  Pre-post Assessment Blueprint: Scoring Criteria | Scoring procedures are not explained; assessment items or prompts are not written for student understanding; mastery levels are not defined; directions and procedures are not clear to students. Scoring key and/or rubrics are incomplete. | Scoring procedures are not well explained; assessment items or prompts are not clearly written; mastery levels are not clearly defined; directions and procedures are not clear to students. Scoring key and/or rubrics are attached but do not include all required components. | Scoring procedures are explained, assessment items or prompts are clearly written, mastery levels defined, directions and procedures are clear to students. Scoring key and/or rubrics are attached and include all required components. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |

**Key Assessment 5B: Analysis of Student Learning**

***Student Instructions for Analysis of Student Learning leading up to the Teacher Work Sample:***

**Administration Point:** The Key Assessment 5 Committee envisions assessments 5A and 5B serving in the content methods course(s) within the program unit prior to student teaching. Assessments 5A and 5B are two separate assessments that may be split into two courses or may be used together within the same semester, along with Key Assessment 6: Design for Instruction.

**Purpose:** The pieces of the WKU Teacher Work Sample (TWS) included in this Assessment Knowledge package – Learning Goals & Pre/Post Assessment and Analysis of Student Learning – are performance-based assessment tools for teacher candidates to demonstrate their ability to plan, administer a standards-based instructional assessment sequence, and analyze student learning. WKU teacher candidates are required to show proficiency in designing learning goals with a corresponding pre/post assessment, and analysis pre/post and formative assessment data. Standards specifically related to are listed below.

The purpose of this assignment is to:

* Learn how to analyze a set of pre/post assessment data for a set of students in content area of program.
  + The data may be generated by the teacher candidates or provided by the course instructor.
* Represent, analyze, and communicate assessment data results.
  + Use visual representations and narrative to communicate the performance of the whole class, subgroups, and/or an individual student.
  + Analyze decisions made regarding the instruction and assessment to determine the success of instruction.

Through this process, teacher candidates can further develop their skills to prepare themselves for a successful first year of teaching. While beginning candidates may not replicate all portions of this key assessment when designing every unit during their first years of teaching, the TWS from which this assessment was derived is a research-based model that, if followed, assists teachers in developing sound instructional experiences.

**Use:** The key components in the “Assessment Knowledge” package are used to measure candidates’ formative knowledge, specifically on learning goals development, assessment design, and analysis of data. As this and other key assessments are leading up to student teaching, candidates will apply this knowledge to their student-teaching experience. The key components will be applied again through the TWS and will determine whether candidates are ready to exit the WKU educator preparation program and be recommended for certification. For key assessments prior to student teaching, candidates receiving a holistic score of “1” will be required to repeat the key assessment until successful (scoring at least “2”) or will be advised out of the program; Candidates scoring “2” will be allowed to continue into the next level of the program.

**Optional Suggestion:** Attached is an Analysis of Student Learning template for teacher candidates to use with this assignment with suggestions for how to analyze the data.

**Kentucky Teacher Standard Assessed:**

Standard 5 - Assesses/Communicates Learning Results

**Tasks:** Using the assessment data, analyze the following components:

1. **Introduction:** In this section the teacher candidate will write an introductory paragraph including:
2. A rationale for the importance of analysis.
3. A summary of the assessment cycle
   * Include the timeline, number of students included in analysis, learning goal mastery targets for mastery, and standards alignment.
4. Communicate plan for how students are made fully aware of the criteria and performance standards by which their work will be evaluated and have contributed to the development of the criteria. (This may involve the development of Learning Targets.)
5. **Visual Representation:**  Use technology (graphs/tables and other graphic representations) to represent student learning from assessment data results. Create at least 3 graphs/tables from the following lists to represent your data. (Note: All choices can be from one category with instructor approval). Label each representation for reference in the narrative (e.g., Table 1, Graph A).
6. Whole group data:
   * Show whole group performance for each goal pre and post – mastery vs. non-mastery of Goal.  (recommended)
   * Show whole group performance for each goal, pre- and post-assessment, as percentage of mastery of questions within the goals.
   * Show whole group performance on each assessment item comparing pre- to post-assessment data.  (recommended)
   * Show performance of whole group on each question.
   * Show performance of whole group on performance task, pre- and post-assessment.
   * Show performance of whole group on types of assessment items.
7. Subgroup data:
   * Show subgroup performance for each goal pre and post – mastery vs. non-mastery of Goal. (recommended)
   * Show subgroup performance for each goal, pre- and post-assessment, as percentage of mastery of questions within the goals.
   * Show subgroup performance on each assessment item comparing pre- to post-assessment data.
   * Show performance of subgroup on each question.
   * Show performance of subgroup on performance task, assessment items.
8. Individual Students:
   * Show individual performance for each goal on the pre- and post-assessment – mastery vs. non-mastery of Goal. (recommended)
   * Show individual performance on each assessment item comparing pre- to post-assessment data. (recommended)
   * Show individual performance group on each assessment item.
   * Show performance of individual on performance task, pre- and post-assessment.
   * Show performance of individual on types of questions.
9. **Analysis of Student Performance**: Describe, analyze, and evaluate student performance data to determine progress of individuals and groups toward learning goals and identify differences in progress among student groups.
   1. Describe the data represented on the tables and/or graphs.
   2. Reflect on what the data mean including progress of individuals and student groups.
   3. Identify differences in progress among student groups.
   4. Draw meaningful conclusions from data and report using both percentages and raw data.
   5. Identify trends and patterns in student performance.
10. **Instructional implications from data:**   Use data to reflect on and evaluate instructional practice.
11. Reflect on and evaluate instructional practice to inform future teaching.
12. Identify small groups for specific content/skills based on data representations.
13. Evaluate instructional practice in terms of specific student needs.
14. Discuss which goal the students made the most learning gains and the goal students made the least learning gains.
15. Discuss which learning goal determined the best conceptual understanding of content and why. (optional for mid-term)
16. **Discuss which learning goal provided more learning gains due to the assessment mode and why. (optional for mid-term)**
17. **Describe 2 changes that could be made to instruction and assessment for this unit if you were to teach this unit again. (optional for mid-term)**
18. Provide appropriate, logical, detailed discussion of reinforcement and extension activities of this unit. (optional for mid-term)
19. **Analysis of an Individual Student:** Choose a student to evaluate. Draw conclusions about the extent to which this student attained learning goals in this unit.
20. Portray and describe an individual student’s data from pre-, formative, and post- assessments.
21. Provide examples of the descriptive feedback you provided to this individual student to represent what you did for the entire class. (optional for mid-term)
22. Draw conclusions about the extent to which this student attained learning goals in this unit.
23. Identify and address evidence of student’s misconceptions of content from assessment results from pre-, formative, and post-assessments.  (optional for mid-term)
24. Discuss how the formative assessments helped you adjust instruction for the individual student.  Highlight any collaborative efforts if used. (optional for mid-term)
25. Share student self-assessment and monitoring of progress data for this individual student.  Share how this impacted the student’s understanding of personal learning and growth. (optional for mid-term)
26. Reflect on what could have been done differently. Design a plan for next steps. (optional for mid-term)

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| **Key Assessment 5B: Analysis of Student Learning**  **Scoring Guide** | | | | | | | |
| **CAEP** | **InTASC** | **KTS** | **Criteria** | **Beginning** | **Developing** | **Proficient** | **Exemplary** |
| **1.1**  **1.5**  **T** | **1,6,8,9,10** | **6.4** | **ASL 1**  Visual Representation of Student Performance | No use of technology tools to create graphs/tables; graphs/tables are hand  drawn.  3 or more required  graphs/tables are not  included.  Or  All required graphs/tables  from the prompt are  included but most are  inaccurate, do not  communicate student  learning gains, or do not compare groups and  assessments correctly. | Poor use of technology tools to  create graphs/tables; graphs/tables  do not clearly or accurately  communicate data.  1 or 2 required graphs/tables are  not included.  Or  All required graphs/tables from  the prompt are included but some  are inaccurate, do not  communicate student learning gains, or do not compare groups and assessments correctly. | Excellent use of technology  tools to create graphs/tables  that communicate student  learning data legibly and  accurately.  At least three graphs/tables  from the prompt are included, providing accurate data to  communicate, assess, and compare student learning gains. Representations are  labeled accurately. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **1.2** | **6**  **9** | **5.4**  **7.1** | **ASL 2**  Analysis of Student  Performance | No discussion for 2 or more graphs or 2 or more goals; or inaccurate discussion and reflection of data results and interpretation for all learning goals.  No alignment of analysis with learning goals, contextual factors, and curriculum standards for each required graph and each learning goal.  No conclusions drawn from data or incorrect data used.  No reference to trends and patterns in student performance.  No interpretation of student misconceptions of content. | Accurate and logical description and reflection on data results and interpretation for only one learning goal; or no discussion for one graph for one or more goals; or inaccurate discussion and reflection of data results and interpretation for some learning goals.  Unclear or inaccurate alignment of analysis with learning goals, contextual factors, and curriculum standards for each required graph and each learning goal; or  discussion of alignment of analysis with learning goals, contextual factors, and curriculum standards is left out for one or more graphs/goals.  Inaccurate conclusions drawn from data or inaccurate data used to draw conclusions.  Little or no reference to trends and patterns in student performance.  Unclear or inaccurate interpretation of student misconceptions of content. | Accurate and logical description, analysis, evaluation and reflection on data results to determine progress of individuals and groups toward learning goals. Identify differences in progress among student groups.  Clear, accurate alignment of analysis with learning goals, contextual factors, and curriculum standards for each required graph and each learning goal.  Meaningful conclusions drawn from data and reported using both percentages and raw data.  Clear and accurate reference to trends and patterns in student performance.  Thorough interpretation of student misconceptions of content. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **1.2**  **1.3**  **1.4** | **1,7**  **9** | **2.4**  **7.2** | **ASL 3**  Instructional Implications from Data | Inaccurate reflection and evaluation of instructional  practice for future teaching and discussion is missing  for 2 or more groups or two or more goals.  Inaccurate reflection and evaluation of instructional practice for future teaching or no discussion.  No discussion of  content/skills that need remediation or discussion is not based on data results  or results are missing for 2 or more groups or for 2 goals. | Accurate reflection and evaluation of instructional practice for future teaching but discussion is missing for 2 or more groups or one or more goals; or inaccurate reflection and evaluation of instructional practice for future teaching.  Insufficiently identifies small groups for specific content/skills based on data representations and clearly evaluates instructional practice in terms of specific student needs that were noted in contextual factors.  Unclear description which goal the students made the most learning gains and the goal students made the least learning gains; inadequate discussion on which learning goal determined the best conceptual understanding of content and why; and inadequate discussion which learning goal provided more learning gains due to the assessment mode and why.  Unclear description of 2 changes that could be made to instruction and assessment for this unit if the unit were to be taught again.  Inadequate description of reinforcement and extension activities of this unit. | Clear reflection and evaluation of instructional practice to inform future teaching.  Competently identifies small groups for specific content/skills based on data representations and clearly evaluates instructional practice in terms of specific student needs that were noted in contextual factors.  Thoroughly describes which goal the students made the most learning gains and the goal students made the least learning gains; discusses which learning goal determined the best conceptual understanding of content and why; and discusses which learning goal provided more learning gains due to the assessment mode and why.  Clearly describes 2 changes that could be made to instruction and assessment for this unit if the unit were to be taught again.  Appropriately provides logical, detailed discussion of reinforcement and extension activities of this unit. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |
| **1.1**  **1.3**  **1.4** | **4,5** | **1.5** | **ASL 4**  Analysis of an Individual Student | Inaccurate data used for student evaluation.  No conclusions drawn about the extent to which this student attained learning goals in this unit.  No description of student’s misconceptions about content, assessment or instruction.  No discussion of student’s misconceptions about content. No discussion on how formative assessments helped with instructional adjustment.  No reflection of what could have been done differently. No description of next steps. | Inaccurate portrayal and description of the individual student’s data from pre-, formative, and post-assessments.  Inappropriate conclusions drawn about the extent to which this student attained learning goals in this unit.  Inaccurate description of student’s misconceptions about content, assessment, and instruction or parts missing.  Unclear discussion on how formative assessments helped with instruction adjustment. Collaborative efforts did not connect to student results.  Inaccurate, short reflection of what could have been done differently. Little description of next steps or unclear connection of next steps to student success. | Accurate portrayal and description of an individual student’s data from pre-, formative, and post-assessments along with the instruction and connection to contextual factors.  Appropriate conclusions drawn about the extent to which this student attained learning goals in this unit.  Accurately describes students’ misconceptions about content with clear discussion on how formative assessments helped with instruction adjustment. Includes any collaborative efforts.  Clear discussion on how formative assessments helped with instruction adjustment. Any collaborative efforts connect to student results.  Accurate, in-depth reflection of what could have been done differently. Thorough description of next steps for individual. | Achieves the Proficient level with minimal assistance on the first attempt and demonstrates above and beyond the Proficient level. |

**APPENDIX A: GLOSSARY**

**Adaptations:** Any adjustment or modifications in the environment, instruction or material used for learning that enhance the person’s performance or allows at least partial participation in an activity. This might include the following: (1) change the instructional grouping or arrangement; (2) change the teaching format; (3) change the environmental conditions; (4) change the curricular goals or learning outcomes; (5) change the instructional materials; (6) change the level or type of personal assistance; and (7) create an alternative activity.

**Align:** The consistency among learning goals, objectives, pre-assessments, instruction, and post assessments. It means what is taught or the instruction lines up with the standards and assessments used to measure that learning. Good instruction does “teach to the test” because it leads students to the knowledge and learning outcomes that students must demonstrate on an assessment.

**Bloom’s Taxonomy (Revised):** Benjamin Bloom created a multi-tiered model of classifying thinking with six cognitive levels of complexity. This taxonomy was revised in the 1990’s. The levels on the taxonomy are as follows:

* **Remembering**: Retrieving, recognizing, and recalling relevant knowledge from long-term memory.
* **Understanding**: Constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining.
* **Applying**: Carrying out or using a procedure through executing, or implementing.
* **Analyzing**: Breaking material into constituent parts, determining how the parts relate to one another and to an overall structure or purpose through differentiating, organizing, and attributing.
* **Evaluating**: Making judgments based on criteria and standards through checking and critiquing.
* **Creating**: Putting elements together to form a coherent or functional whole; reorganizing elements into a new pattern or structure through generating, planning, or producing. (Anderson & Krathwohl, 2001, pp. 67-68)

**Differentiation:**  The practice of giving students multiple option for taking in information, making sense of ideas, and expressing what they learn. It provides different avenues to acquire content, to process or make sense of ideas and to develop products.

**Instructional Strategies:** An approach a teacher may take to achieve the learning objectives that consider student needs and interests.

**Learning Goals:** Performance statements that use behavioral terms, aligned to Bloom’s revised cognitive taxonomy, and are the focus of instruction in a unit.

**Learning Outcome:** The essential skills or knowledge that students should possess as a result of the unit of study.

**Multiple Modes:** Assessments should include various types of assessments including selected response (e.g., multiple choice and matching) constructed response (e.g., essay, short answer) and performance events (e.g., written, oral, and demonstrative).

**Objectives:** Instructional objectives are specific, measurable, and observable student behaviors. They have four parts: (1) student orientation, (2) specific observable behavioral verb, (3) conditions where the learning will occur, and (4) measure or degree of performance.

**Primary Care Giver:** The individual(s) who assumes the responsibility of taking care of a child, such as a parent or legal guardian.

**Real World Connections:** Related to the student's own life and experiences.

**Research-Based:** Practices and strategies that have an impact on student achievement—helping all students, in all kinds of classrooms.

**Valid:**

* As related to the Pre/Post Assessment
  + At least 3 assessment items should meet the Revised Bloom’s Cognitive level of each Learning Goal. To be on an application or higher level of Bloom’s Cognitive Taxonomy then assessments items must be new and not used during instruction.
  + Assessment items must measure the content described in the learning goal and taught during instruction.
  + Assessment items should be clear with no ambiguity, excessive verbiage, inappropriate vocabulary, awkward sentences, too difficult vocabulary or complex sentences according to students’ maturity level. If the assessment item is a short answer or open response the number of student responses expected should be stated (e.g., Explain 2).
  + The assessment should be free from irrelevant clues. These include grammatical inconsistencies, verbal associations, specific determiners (e.g., words such as always and never), and some mechanical features such as correct statement tending to be longer than incorrect ones. The assessment should not provide a clue to the answer in another part of the assessment.
  + The assessment should not show racial, ethnic, or gender bias.
  + The assessment should be considerate of content and level of student for assessment design (e.g., circling instead of blanks and using pictures for kindergarteners).
  + The assessment should appropriately organize similar item types in a section and introduce easier questions first moving to more difficult questions.
  + The assessment should provide clear and complete directions throughout the assessment
  + The assessment should provide sufficient answer space for each assessment item.
* As related to the Answer Key
  + Develop appropriate rubrics or scoring criteria that clearly distinguished between the levels of performance and correlate to specific learning goals and objectives. State mastery for each item (e.g., 3 out of 4 on the rubric for mastery of performance task). Mastery levels are needed on all constructed response and performance items.
  + Performance assessment rubrics should be content based (e.g., not assessing neatness, creativity) with the mastery level of the item stated.
  + For younger grades (e.g., K-1), it is important to use concise wording on the assessment. If additional directions are needed, then include teacher script with our answer key.
  + Assessment answers should be agreed on by experts.

**Appendix B: Instructional Tools**

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| **Learning Goals & Pre/Post Assessment** | | | | | | | | |
| **Learning Goal #1** | | | | | | | | |
| **Cognitive level of goal: *(list and defend level/s)*** | | | | | | | | |
| **Standard(s) addressed: *(include both code & statement/s)*** | | | | | | | | |
| **Appropriateness: *(include prior knowledge, developmental information, standards, Learning Descriptions, Yardsticks, etc.)*** | | | | | | | | |
| **Mastery Level:** | | | | | | | | |
| **Learning Goal** | **Description of Assessment Items** | | | | | | | **Accommodations/Adaptations**  **OPTIONAL FOR MID-TERM** |
| **Pre/Post**  **Assessment** | ***Item #*** | | ***Type*** | ***Bloom’s*** | | ***Points*** | ***Mastery Level*** |  |
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| **Learning Goal #2:** | | | | | | | | |
| **Cognitive level of goal: *(list and defend level/s)*** | | | | | | | | |
| **Standard(s) addressed: *(include both code & statement/s)*** | | | | | | | | |
| **Appropriateness: *(include prior knowledge, developmental information, standards, Learning Descriptions, Yardsticks, etc.)*** | | | | | | | | |
| **Mastery Level:** | | | | | | | | |
| **Learning Goal** | **Description of Assessment Items** | | | | | | | **Accommodations/Adaptations**  **OPTIONAL FOR MID-TERM** |
| **Pre/Post Assessment** | ***Item #*** | | ***Type*** | | ***Bloom’s*** | ***Points*** | ***Mastery Level*** |  |
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| **Learning Goal #3:** | | | | | | | | |
| **Cognitive level of goal: *(list and defend level/s)*** | | | | | | | | |
| **Standard(s) addressed: *(include both code & statement/s)*** | | | | | | | | |
| **Appropriateness: *(include prior knowledge, developmental information, standards, Learning Descriptions, Yardsticks, etc.)*** | | | | | | | | |
| **Mastery Level:** | | | | | | | | |
| **Learning Goal** | **Description of Assessment Items** | | | | | | | **Accommodations/Adaptations**  **OPTIONAL FOR MID-TERM** |
| **Pre/Post Assessment** | ***Item #*** | ***Type*** | | | ***Bloom’s*** | ***Points*** | ***Mastery Level*** |  |
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*Include a copy of the pre/post assessment and the answer key with this section.*

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| **Analysis Template/Outline** |
| **Whole Group Analysis:** Write an introductory paragraph including: a) rationale for the importance of analysis and b) summary of the assessment cycle. (Include the timeline, number of students included in analysis, learning goal targets for mastery). |

***Insert a graph depicting whole class mastery on all Learning Goals. (Visual Representation-Whole Group Goal))***

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| **Description of the data represented on the tables and/or graphs. (Analysis)** |
| **Discussion of learning goal performance. (Analysis)** |
| **Meaningful conclusions from data -- report using both percentages and raw data. (Analysis)** |
| **Discussion which goal the students made the most learning gains and the goal students made the least learning gains. (Implications)** |
| **Discussion of which learning goal determined the best conceptual understanding of content and why. (Implications)**  **OPTIONAL FOR MID-TERM** |
| **Discussion of which learning goal provided more learning gains due to the assessment mode and why. (Implications)**  **OPTIONAL FOR MID-TERM** |

***Insert a graph/table representing each assessment item/question comparing pre-post mastery for each student.***

***(Visual Representation-Whole Group Question)***

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| **Identification of student misconceptions of content. (Analysis) OPTIONAL FOR MID-TERM** |
| **Identification of small groups for specific content/skills based on data representations. (Implications)** |
| **Identification of trends and patterns in student performance. (Analysis –)** |

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| **Subgroup Analysis** |

***Insert a graph that represents pre/post data on Learning Goals for each group. (Visual Representation Subgroup)***

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| **Description of the data represented on the tables and/or graphs. (Analysis)**  ***(What was your rationale for choosing this group of students? What was your hypothesis?*** *What is represented on the graph? Report in both percentages and raw data. Because this data set consisted of a small data sample what does that tell you?* |
| **Identify differences in progress among student groups. (Analysis)**  *(Why is it important to understand these groups’ performance?)* |
| **Reflection on what the data mean including progress of individuals and student groups. (Analysis)**  *Reflect on and evaluate your instruction for the subgroups. What student needs did you meet or not meet? What content or skills were not mastered? Summarize formative assessment for the subgroups.* |

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| **Whole Group Performance for Each Individual** |

***Insert graphs representing pre/post data on each student for each Learning Goal. (Visual Representation)***

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| **Description of the data represented on the tables and/or graphs. (Analysis)**  *(Identify and discuss number and percentage of students who need remediation. Identify number and percentage of students who met target in each goal. Identify number and percentage that made progress in each goal. Look at those students who were already at target on the pretest and discuss if they showed any growth.)* |

***Insert a visual representation of individual performance over time (think about performance on retest, formative assessments during instruction, and posttest)***

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| **Analysis of an Individual Student:** *Choose a student to evaluate. Draw conclusions about the extent to which this student attained learning goals in this unit.* |
| **Portrayal and description and of an individual student’s data from pre-, formative, and post-. (Analysis of Individual)** |
| **Conclusions drawn about the extent to which this student attained learning goals in this unit. (Analysis of Individual)** |
| **Identification and addressing of evidence of student’s misconceptions of content from assessment results from pre-, formative, and post-assessments. (Analysis of Individual) OPTIONAL FOR MID-TERM** |
| **Discussion of how the formative assessments helped you adjust instruction for the individual student. Highlight any collaborative efforts used. (Analysis of Individual) OPTIONAL FOR MID-TERM** |
| **Reflection on what could have been done differently for this student. Designed plan for next steps for this student. (Analysis of Individual) OPTIONAL FOR MID-TERM** |

***Conclusion***

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| **Description of 2 changes that could be made to instruction and assessment for this unit if you were to teach this unit again. (Implications) OPTIONAL FOR MID-TERM** |
| **Provide appropriate, logical, detailed discussion of reinforcement and extension activities for this unit. (Implications) OPTIONAL FOR MID-TERM** |