|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Writing Selected Response *(multiple choice)* Questions to Align with Reading CCSS** | | | | | | | | | | | | |
| ***Introduction*** | | | | | | | | | | | | |
| The purpose of formative assessment is to determine what students know and what they are experiencing difficulty understanding. By following certain strategies for writing selected responses we can avoid getting bad data. Teams need to be able to write assessments that are valid (truly measuring what students have learned) and reliable (students who appear to have learned a concept have actually learned it) but don’t rely on difficult design strategies and statistical analysis *(condensed from Kim Bailey & Chris Jackicic; Common Formative Assessments, 2012).*  Writing selected response questions that are singular in purpose (not measuring more than one objective) and measure a clear objective of learning increases test reliability and validity. For instance, if a selected response question is intended to measure reading comprehension, then the stem should not have a complex language structure. | | | | | | | | | | | | |
| ***Depth of Knowledge*** | | | | | | | | | | | | |
| Assessment questions (stems) should be written at the depth of knowledge of the standard being assessed (the highest DOK allowed for that standard). The correct option should also reflect the DOK of the assessed standard. Although selected response questions can theoretically be written at all DOK levels (1 – 4) a true valid and reliable understanding of what students know at DOK – 3 and DOK – 4 levels, require assessing a students’ reasoning and extended comprehension skills across content. Experts note that it is difficult or impossible to assess very high-level thinking using selected response questions *(Ainsworth, 2006; Popham, 2003, Stiggins et al., 2004).* | | | | | | | | | | | | |
| **DOK – 1** | | | **DOK – 2** | | | **DOK – 3** | | | | **DOK - 4** | | |
| **Questions to direct or focus attention *(Who? What? Where? How? When?)*** | | | **Questions to *differentiate*, classify, draw out inferences, and check conceptual understanding (*Why? What conditions? Give example?)*** | | | **Questions to probe reasoning and underlying thinking *(How do you know? What is* *the evidence? But what if? Is this supported by* *the facts?)*** | | | | **Questions to extend thinking explore sources; broaden perspectives *(What are the potential* *biases? Can you propose an alternative? Can you* *design a model? What is the importance - value?)*** | | |
| ***The above DOK chart is from: “Linking research with practice: A local assessment toolkit to guide school leaders Karin K. Hess, Ed.D. | 2013”***  [***Administrators Toolkit Hess 2013***](http://www.nciea.org/cgi-bin/pubspage.cgi?sortby=pub_date) | | | | | | | | | | | | |
|  | | | | | | | | | | | | |
| ***Highest CCSS Depth of Knowledge (DOK) Level***  *(Smarter Balance; Content Specifications, January 2012)*  [*CCSS Content Specifications SBAC*](http://www.smarterbalanced.org/wordpress/wp-content/uploads/2011/12/ELA-Literacy-Content-Specifications.pdf)  *Note: Grades K – 2 should follow DOKs written for Grade 3 using teacher discretion.* | | | | | | | | | | | | |
| **Literature** | | | | | | | **Informational** | | | | | |
| **Grade** | ***3*** | ***4*** | | ***5*** | ***6*** | |  | **Grade** | ***3*** | ***4*** | ***5*** | ***6*** |
| **RL.1** | **DOK -2** | **DOK -2** | | **DOK -2** | **DOK -2** | | **RI.1** | **DOK -2** | **DOK -2** | **DOK -2** | **DOK -2** |
| **RL.2** | **DOK -2** | **DOK -2** | | **DOK -2** | **DOK -2** | | **RI.2** | **DOK -2** | **DOK -2** | **DOK -2** | **DOK -2** |
| **RL.3** | **DOK -3** | **DOK -3** | | **DOK -3** | **DOK -4** | | **RI.3** | **DOK -2** | **DOK -3** | **DOK -3** | **DOK -4** |
| **RL.4** | **DOK -2** | **DOK -2** | | **DOK -3** | **DOK -2** | | **RI.4** | **DOK -2** | **DOK -2** | **DOK -2** | **DOK -2** |
| **RL.5** | **DOK -2** | **DOK -3** | | **DOK -3** | **DOK -4** | | **RI.5** | **DOK -2** | **DOK -2** | **DOK -4** | **DOK -2** |
| **RL.6** | **DOK -3** | **DOK -4** | | **DOK -4** | **DOK -4** | | **RI.6** | **DOK -3** | **DOK -4** | **DOK -4** | **DOK -3** |
| **RL.7** | **DOK -2** | **DOK -3** | | **DOK -3** | **DOK -4** | | **RI.7** | **DOK -2** | **DOK -3** | **DOK -2** | **DOK -4** |
| **RL.8** | **N/A** | | | | | | **RI.8** | **DOK -3** | **DOK -3** | **DOK -3** | **DOK -3** |
| **RL.9** | **DOK -4** | **DOK -4** | | **DOK -4** | **DOK -4** | | **RI.9** | **DOK -4** | **DOK -4** | **DOK -4** | **DOK -4** |
|  | | | | | | | | | | | | |
|  | | | | | | | | | | | | |

|  |  |  |
| --- | --- | --- |
| ***Judging a Good Stem: Students, who know the content of a passage, should be able to answer the question before even looking at the options.*** | | |
| **Selected Response Guidelines and Examples** | | |
| **1** | Questions and options should not confuse test-takers. If students do not understand what the question is really asking, we will not get a clear picture of the students’ ability to comprehend. | |
| **Good Selected Response Questions and Options...** | | **Not so Good Selected Response Questions and Options...** |
| **Grammar and Syntax in Stem and Options are the Same***(singular)* | | **Grammar and Syntax in Stem and Options are NOT the Same** *(singular & plural)* |
| Q: What substance can cause heart disease? A: Protein | | Q: What substance can cause heart disease? A: Protein**s** |
| **The Stem is a Complete Sentence** | | **The Stem is Not a Complete Sentence***(or fill in the blank)* |
| What is the speed of light? | | The speed of light is: |
| **Stem uses Positive Statements/Words** | | **The Stem uses Negative Words** |
| Which of the following is an Irish poet? | | Which of the following is **not** an Irish poet? |
| **Questions are clear and concise without qualifiers or absolutes** | | **Avoid using Words Always, Never, (similar definitive terms) in Stems** |
| What weather conditions indicate that cicadas will return? | | Not only do cicadas come every 17 years, but they also never arrive... |
|  |  | |
| **2** | Questions and options should not divert test-takers away from the focus. When the complexity level and purpose of the question is misplaced the likelihood of guessing correctly increases. | |
| **Good Selected Response Questions and Options...** | | **Not so Good Selected Response Questions and Options...** |
| **Use of Parallel Sentence Structure** | | **Not a Parallel Sentence Structure** |
| Mr. Brown’s lecture was inaccurate, boring, and unnecessary. | | Mr. Brown’s lecture was inaccurate, boring, and should have been omitted. |
| **The Stem is Simple, Clear, Concise with only Relevant Information** | | **The Stem has Additional Information Irrelevant to the Question** |
| What need primarily motivated the purchase of the Louisiana Territory? | | What need primarily motivated the purchase of the Louisiana Territory completed in 1803 and considered one of Thomas Jefferson's greatest accomplishments as president? |
| **Additional Repetitive Words are in the Stem** | | **Additional Repetitive Words are in the Options** |
| Q: What should you do when your body adapts to your exercise load? A: A. decrease.... B. increase... C. change.... | | Q: What do you do when your body adapts to your exercise load? A: A. You should.... B. You should... C. You should.... |
|  | | |
| **3** | Questions (stems) and options that “give away” answers and help students guess the answer make the data gathered less reliable *(Gareis & Grant, 2008, Popham, 2003, Stiggins et al., 2004).* You’ll never know if your students know the correct answer. | |
| **Good Selected Response Questions and Options...** | | **Not so Good Selected Response Questions and Options...** |
| **All Options are Plausible and in the Text** | | **Some or All Options are Not Plausible and Not in the Text** |
| What was Thomas Edison’s first successful patent?  A. phonograph B. electric light C.stock ticker | | What was Thomas Edison’s first successful patent?  A. phonograph B. Nike shoes C.stock ticker |
| **Verbal Clues to the Correct Answer are Not Given in the Stem (Question)** | | **Options with Verbal Clues (key words) ARE in the Stem (Question)** |
| Q: What is the main topic of this passage?  Correct Answer: A frog’s body helps it survive. | | Q: What is the main topic about frogs’ **survival** in this passage?  Correct Answer: A frog’s body helps it survive. |
| **Clues to the Correct Option are not Provided in Another Item** | | **Students can use the Content of Other Options as a Clue to Correct Answer** |
| Q on an exam: What does the electronic online catalog include? A. books B. magazines C. newspaper clippings | | Later Q on same exam: Using the online catalog, which search term would help you find a **book** by a specific writer? |
| **Options are About the Same Length** | | **Options are Not the Same Length** |
| All options have about the same number of words. | | All options have about the same number of words except the correct answer is significantly longer. |
|  |  | |
| **4** | Questions and options are at the correct cognitive level, not bringing in the need to use other skills at different cognitive levels (e.g., students should not have to “work through” logical order before answering a question that is not accessing logical order). | |
| **Good Selected Response Questions and Options...** | | **Not so Good Selected Response Questions and Options...** |
| **Options are in a Logical Order** | | **Options are NOT in a Logical Order, Which Diverts Focus away from Question** |
| a. 2% b. 9% c. 29% d. 45% | | a. 45% b. 2% c. 29% d. 9% |

[***http://jfmueller.faculty.noctrl.edu/toolbox/tests/gooditems.htm***](http://jfmueller.faculty.noctrl.edu/toolbox/tests/gooditems.htm)

|  |  |
| --- | --- |
| **A Rationale for Writing Selected Response Distractors** | |
| The word “distract” means to draw away from. “Distractors have typically been designed to draw students away from the correct answer *(Popham, 200; Nitko, 2004).”* Distractors in multiple choice questions have been guided by editorial or grammatical concerns and have received little attention compared to other elements of multiple choice questions.  Research has indicated that distractors can play a new role: helping us know a student’s misunderstanding or misconceptions. Pearson (Gardner, 2004; King 2004) has developed a system for organizing distractors by four-level taxonomy. Similarly using the *Hess CR Matrix* we can align distractors with Webb’s Depths of Knowledge, which plays a major role in the Common Core Standards. | |
| **Writing Distractors to Show Misunderstandings or Misconceptions** | |
| Write distractors for **DOK 1** to show fundamental errors in fact retrieval. | Write distractors for **DOK 2** to show errors in recognizing information presented in a new way. |
| Write distractors for **DOK 3** to show difficulty moving from a literal interpretation to strategic reasoning and relationships connecting ideas. | Write distractors for **DOK 4** to show misunderstandings of how multiple sources of abstract and complex ideas connect across content domains or concepts. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Selected Response *Example* Template** | | | | | |
| **Standard Code:** | | **RI.3.3** | **Depth of Knowledge:** | **DOK-3** | |
| **Complete Standard:**  \*Describe the relationship between a series of historical events, **scientific ideas or concepts**, or steps in technical procedures in a text, using language that pertains to time, sequence, and **cause/effect**. | | | | | |
| **Change the standard** to a sentence frame with the addition of only a few words.  \*The relationship between \_\_\_, \_\_\_\_ and \_\_\_\_ is \_\_\_\_\_. | | | | | |
| **Convert the sentence frame** you wrote above into a **stem (question)** using specific content from the passage or text. | | | | | |
| **RI.3.3 Stem:**  In the passage about Benjamin Franklin, what was the relationship between the discovery of electricity and lightning? | | | | | |
| ***Note: RI3.3 has a DOK-3 level. Distractors can be written from a DOK-1 to a DOK-3, but not above DOK-3.*** | | | | | |
| **Write 3 distractors and one correct answer.** | | | | | **Rationale of Distractors, student may...** |
| **A** | Benjamin Franklin was an inventor. | | | | ...have an error in fact retrieval **DOK-1** |
| **B** | Benjamin Franklin studied lightning. | | | | ... have partial understanding of the question **DOK-2** but difficulty with new phrasing of concept. |
| **C** | Benjamin Franklin decided to prove that lightning was electricity. | | | | ... Correct answer, student connected cause and effect reasoning **DOK-3**. |
| **D** | Benjamin Franklin thought lightning was mysterious. | | | | ...have an error in fact retrieval or not understand the question **DOK-1**. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Selected Response Template** *(use for answer key)* | | | | | |
| **Standard Code:** | |  | **Depth of Knowledge:** | **DOK-** | |
| **Complete Standard:**  \* | | | | | |
| **Change the standard** to a sentence frame with the addition of only a few words.  \* | | | | | |
| **Rewrite the sentence frame** you wrote above into a **stem (question)** using specific content from the passage or text. | | | | | |
| **\_\_\_\_ Stem:**  \* | | | | | |
| ***Write 3 distractors and one correct answer.*** | | | | | ***Rationale of Distractors, student may...*** |
| **A** |  | | | |  |
| **B** |  | | | |  |
| **C** |  | | | |  |
| **D** |  | | | |  |

|  |  |
| --- | --- |
| **Writing *Short Constructed Response* Questions to Align with Reading CCSS** | |
| ***Introduction:***  A short constructed response question is measuring reading comprehension of content, the question and student response should not be used to measure writing proficiency!  More than simple recall, constructed responses should be asking questions of higher cognitive demand. Examples would be making comparisons, identifying patterns, evaluating points of view, making generalizations, and synthesizing information (depending on the standard’s objective).  Constructed responses are single questions in which students are asked to respond to a prompt or question by stating their answer and providing textual evidence to support their answer.  **There are two types of constructed response questions, short and extended.**  The goal of the *short constructed response question* is to require students to succinctly show their ability to comprehend text.  In responding to these questions, students will be expected to write in complete sentences.  The goal of the *extended constructed response question* is to assess a student’s ability to write from sources and primarily focuses on writing standards. Many are framed around a central question and reference more than one source. | |
|  | |
| General Guidelines: (follow the same guidelines as selected responses for question writing)   * Short constructed response questions should align with the standard being assessed. * Questions should not intrude on a student’s privacy (asking how they feel, a personal experience, or a justification for a response other than the text itself). * Short constructed response questions should have more than one way to answer a question (as indicated in the scoring notes). | |
| **Good Questions** | **Not so Good Questions** |
| The question is reasonable (the scope is not too broad).  A pencil rolls across a tabletop and then falls to the floor.  Describe the changes in the kinetic energy and gravitational potential energy of the pencil as it rolls, falls, and lands on the floor. | Explain kinetic energy and gravitational potential energy. |
| The task is very specific and the criterion is clear. Don’t expect students to “read between the lines.”  Describe three differences between igneous and sedimentary rocks. | Describe the differences between various types of rocks |
| Use verbs that discourage one-word responses such as: explain, Illustrate, examine, etc... | Do not use words that encourage one word or very little response such as: name list yes no |

|  |  |
| --- | --- |
| **SBAC Rubric for Short Constructed Response** | |
| **3** | **The response:**   * gives **essential** elements of a **complete** **interpretation** of the prompt * **addresses many aspects** of the task and provides **sufficient relevant evidence** to support development * is **focused and organized**, **consistently addressing** the purpose, audience, and task * includes sentences of **varied** length and structure |
| **2** | **The response:**   * gives **some** of the elements of an interpretation of the prompt * **addresses some aspects** of the task and provides **some evidence** to support development * **has a focus** but **lacks strong organization** and **inconsistently addresses** the purpose, audience, and task. * includes sentences of **somewhat varied** length and structure |
| **1** | **The response:**   * gives **minimal** elements of an interpretation of the prompt * **addresses few aspects** of the task and provides **little relevant evidence** to support development. * **lacks focus and organization** and generally **does not address** the purpose, audience, and task. * includes sentences with **little variety** in length and structure |
| **0** | **The response** does not meet any of the criteria. |

|  |  |  |
| --- | --- | --- |
| ***Short Constructed Response Example Template***  ***(write one for each constructed response question – use for an answer key).*** | | |
| **Complete Standard: RI.3.3**  \*Describe the relationship between a series of historical events, scientific ideas or **concepts**, or steps in  technical procedures in a text, using language that pertains to time, sequence, and **cause/effect**. | | |
| **Sentence Frame for Standard: RI.3.3**  \*Describe the relationship between \_\_\_, \_\_\_\_ and \_\_\_\_. | | |
| **Item Prompt (Stem): Standard: RI.3.3 Text/Stimulus: Ribbits in the Rainforest**  Convert Sentence Frame into a Short Constructed Stem (Question): ***note: although the words relationship between are not used, the student must still connect or “relate” adaption to survival (cause/effect).***  \*Explain the concept that animals use adaption for survival. Give examples from the text. | | |
| **Scoring Notes:** ***(very important – to be written by teacher in “adult language” be very specific!).*** | | |
| **Essential Elements** of a Complete 🡺 Interpretation: | | Essential elements include connecting “relating” the concept that frogs in the rainforest adapt in different ways to survive (i.e., camouflage, features that allow them to climb, jump or move quickly). Elements also include the purpose for adaption (avoiding predators, mating, finding food). |
| **Aspects of the Task** and Sufficient 🡺 Evidence: | | Aspects of the task of relating survival and adaption are providing specific examples as evidence. Some of these include the color of frogs, frog skin that produces poison, frogs with “monkey legs,” and frogs with webbed feet, explaining how each example protects the animal in some way. |
| **Strong Organized** and Consistent 🡺  Focus.... **Sentences Vary**: | | The focus on the relationship between adaption and survival is consistent throughout the students’ writing. The sentences vary in length and interest depending on the point the student is making about the topic. |
| ***Student Sample Example Responses*** ***(write in “kid language” or use real student samples).*** | | |
| **3** | **Student Response:**  Animals adapt to their surroundings in order to survive. Adapt means the animals “fit” into their surroundings. In the story about frogs in the rainforest, the many different kinds of frogs each adapt to survive. For instance a flying frog has webbed feet that lets it spread their feet and seem to “fly” from tree to tree. Because the flying frog moves quickly it can avoid being eaten by predators. Another example is the poison dart frog. These frogs adapt to their surroundings by producing poisons that are deadly to other animals that would have been predators. | |
| **2** | **Student Response:**  Frogs in this story have to adapt to the forest. They can protect themselves from being eaten. There are transparent frogs and coqui frogs that protect themselves. That is how they survive. Frogs have lots of ways to survive and are very interesting too. I really like them. | |
| **1** | **Student Response:**  Animals are like people. They have to survive. Sometimes they are mean. One time I saw a frog but not in the forest and I have a frog for a pet. | |
| **0** | **Student response:** does not meet any of the criteria.  I like forests a lot. | |

|  |  |  |
| --- | --- | --- |
| ***Short Constructed Response Template (Answer Key)*** | | |
| **Complete Standard: \_\_\_\_\_**  \* | | |
| **Sentence Frame for Standard: \_\_\_\_\_**  \* | | |
| **Item Prompt (Stem): Standard: \_\_\_ Text/Stimulus: \_\_\_\_\_\_\_\_\_\_**  Convert Sentence Frame into a Short Constructed Stem (Question): ***note: although the words relationship between are not used, the student must still connect or “relate” adaption to survival (cause/effect).***  \* | | |
| **Scoring Notes:** ***(very important – to be written by teacher in “adult language” be very specific!).*** | | |
| **Essential Elements** of a Complete 🡺 Interpretation: | |  |
| **Aspects of the Task** and Sufficient 🡺 Evidence: | |  |
| **Strong Organized** and Consistent 🡺  Focus.... **Sentences Vary**: | |  |
| ***Student Sample Example Responses*** ***(write in “kid language” or use real student samples).*** | | |
| **3** | **Student Response:** | |
| **2** | **Student Response:** | |
| **1** | **Student Response:** | |
| **0** | **Student response:** does not meet any of the criteria. | |