Formative Assessment Worksheet  
Specification #6

Teacher ID:   
School ID:

|  |  |  |
| --- | --- | --- |
| **Target competency:**  special arrow.wmf Student can explain complex relationships between biotic and abiotic factors in an ecosystem. | | |
| Anticipated student misconceptions relevant to this target competency: | | |
|  | **Learning Progression Leading to the Target Competency** (List Building Blocks in Reverse Chronological Order) | **Type of Knowledge** |
| 5. |  |  |
| 4. |  |  |
| 3. |  |  |
| 2. |  |  |
| 1. |  |  |

Copy/paste **Building Block 1** into this box:

|  |
| --- |
|  |

|  |
| --- |
| In two to four sentences, describe what you will do with your students to help them achieve this building block.  →  State how you will assess this building block. In other words, what will you ask your students to do to establish whether they have achieved this building block? Identify the assessment format you will use.  → |

Copy/paste **Building Block 2** into this box:

|  |
| --- |
|  |

|  |
| --- |
| In two to four sentences, describe what you will do with your students to help them achieve this building block.  →  State how you will assess this building block. In other words, what will you ask your students to do to establish whether they have achieved this building block? Identify the assessment format you will use.  → |

Copy/paste **Building Block 3** into this box:

|  |
| --- |
|  |

|  |
| --- |
| In two to four sentences, describe what you will do with your students to help them achieve this building block.  →  State how you will assess this building block. In other words, what will you ask your students to do to establish whether they have achieved this building block? Identify the assessment format you will use.  → |

Copy/paste **Building Block 4** into this box:

|  |
| --- |
|  |

|  |
| --- |
| In two to four sentences, describe what you will do with your students to help them achieve this building block.  →  State how you will assess this building block. In other words, what will you ask your students to do to establish whether they have achieved this building block? Identify the assessment format you will use.  → |

Copy/paste **Building Block 5** into this box:

|  |
| --- |
|  |

|  |
| --- |
| In two to four sentences, describe what you will do with your students to help them achieve this building block.  →  State how you will assess this building block. In other words, what will you ask your students to do to establish whether they have achieved this building block? Identify the assessment format you will use.  → |

**Target Competency:**

|  |
| --- |
| Student can explain complex relationships between biotic and abiotic factors in an ecosystem. |

|  |
| --- |
| In two to four sentences, describe what you will do with your students to help them achieve this target competency, assuming they have achieved the above building blocks.  →  NOTE: **Do not state how you will assess this target competency in this box.** The design of the assessment is established by the specification. Use the following pages of the worksheet to describe what you will do to assess this target competency. Refer to the guidelines in the “**Procedure for Creating Parallel Tasks**” section in Specification #6 when developing this formative assessment. |

**Student Instructions**

In this activity, you will describe relationships between some biotic (living) and abiotic (nonliving) factors. The following 10 biotic and abiotic factors can be found in many *[insert type of ecosystem]* ecosystems in Florida, like the one pictured:

|  |  |
| --- | --- |
| * *[Insert biotic and abiotic factors in alphabetical order.]* * *[Insert 2nd factor.]* * *[Insert 3rd factor.]* * *[Insert 4th factor.]* * *[Insert 5th factor.]* * *[Insert 6th factor.]* * *[Insert 7th factor.]* * *[Insert 8th factor.]* * *[Insert 9th factor.]* * *[Insert 10th factor.]* | *[Insert picture of ecosystem to*  *provide context for students.]* |

Think of how one factor affects another factor in this ecosystem. The relationship might be something one factor does *to* the other factor. Or, the relationship might be something one factor does *for* the other factor.

On the following pages, you will see 18 boxes like the one below. To write your response,

* Pick two factors from the 10 factors listed above and write them in the small boxes.
* In the larger box, write a complete sentence that describes a relationship between the two factors.

Here is how you should fill in your answers:

Write a complete sentence that describes a relationship between the two factors here.

|  |  |
| --- | --- |
| Pick two factors and write them here. |  |
| Factor | Relationship between these two factors |
| Factor |

* Use **each** of the 10 factors in the list **at least once**.
* You can use factors more than once, but you must write a **different relationship** each time.
* You should complete as many relationships as you can, up to 18.

**Student Answer Sheet Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

|  |  |
| --- | --- |
| Factor | Relationship between these two factors |
| Factor |

***Did you use each of the 10 factors at least once? Check now before you finish your work.***

Student Formative Assessment Checklist

This checklist can be used by students for self-assessment or by you to provide feedback. The checklist is based on the specification and reworded to suit seventh-grade reading level. Please feel free to reword for your students.

**Directions:** Use this checklist to evaluate your work. Read each section below and put a check in the box (🗹) next to each statement that accurately describes your work.

**Number of Relationships**

|  |  |
| --- | --- |
| I earn one point for each of the 18 relationships in which I   * related two of the listed factors and * stated an accurate action or effect of one factor on the other, and * did not restate a relationship I wrote previously between the same two factors.   Examples:   * *[Insert an appropriate example of relationships using pairs of the 10 biotic and abiotic factors you selected.]* * *[Insert a second example.]* * *[Insert a third example.]*   **Note:** A relationship between an organism and another factor might only be accurate for some of those types of organisms. For example, *[insert appropriate example of a relationship that is accurate for only a subset of a type of organism that is included as one of the 10 factors]*. If this is the case, I still will receive credit. | 🞎 |

**Number of Factors**

|  |  |
| --- | --- |
| I described a valid relationship for *[insert 1st factor]*. | 🞎 |
| I described a valid relationship for *[insert 2nd factor]*. | 🞎 |
| I described a valid relationship for *[insert 3rd factor]*. | 🞎 |
| I described a valid relationship for *[insert 4th factor]*. | 🞎 |
| I described a valid relationship for *[insert 5th factor]*. | 🞎 |
| I described a valid relationship for *[insert 6th factor]*. | 🞎 |
| I described a valid relationship for *[insert 7th factor]*. | 🞎 |
| I described a valid relationship for *[insert 8th factor]*. | 🞎 |
| I described a valid relationship for *[insert 9th factor]*. | 🞎 |
| I described a valid relationship for *[insert 10th factor]*. | 🞎 |