The intended purpose of this document is to provide teachers with a tool to determine student understanding and suggest instructional moves that may help guide a student forward in their learning. It is not an exhaustive list of strategies.

|  |  |
| --- | --- |
| **Describing Measureable Attributes of Objects** | |
| Example Tasks:  Materials: Two different sized books  Teacher: “Describe the two books using measureable attributes.” | |
| **MEASUREMENT AND DATA**  **Describe and compare measureable attributes.**  **K.MD.1** Describe measurable attributes of objects; and describe several different measurable attributes of a single object. | |
| **Not Yet Proficient** | **Description:**  Student responses in the Not Yet category may include misconceptions about what a measureable attribute is. When asked the question in the task above they may talk about color, texture, or a different feature of the objects. |
| * Give student one object to practice describing the measurable attributes of that object. Discuss examples and the correct use of the following terms: length, long(er), tall(er), short(er), more of, less of. * Provide opportunities for students to measure attributes and describe various objects in the classroom using non-standard units such as multi-link (pop) cubes, paper clips, etc. Have conversations to ensure that students correctly measures objects each time. |
| **Progressing** | **Description:** Student responses in the Progressing category are able to describe 1 measureable attribute of an object such as length, height, weight, or size OR they are able to name but not describe various measureable attributes. |
| * Give student one object to practice describing the measurable attributes of that object. Discuss examples and the correct use of the following terms: length, long(er), tall(er), short(er), more of, less of. * Provide opportunities for students to measure attributes and describe various objects in the classroom using non-standard units such as multi-link (pop) cubes, paper clips, etc. Have conversations to ensure that students correctly measures objects each time. |
| **Meets Expectations** | **Description:**  Student responses in the Meets |
| * Spend more time on other standards such as K.MD.2 where students compare objects by measureable attributes. |

|  |  |
| --- | --- |
| **Comparing Measureable Attributes of Objects** | |
| Example Tasks:  Materials: Two different sized books  Teacher: “Compare the two books based on measureable attributes.” | |
| **MEASUREMENT AND DATA**  **Describe and compare measureable attributes.**  **K.MD.2** Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. | |
| **Not Yet Proficient** | Description:  Student work in the Not Yet category may include misconceptions about what a measureable attribute is. When asked the question in the task above they may talk about color, texture, or a different feature of the objects. |
| * Give student one object to practice describing the measurable attributes of that object. Discuss examples and the correct use of the following terms: length, long(er), tall(er), short(er), more of, less of. * Provide opportunities for students to measure attributes and describe various objects in the classroom. Have conversations to ensure that students aligns or measures objects each time. |
| **Progressing** | Description:  Student work in the Progressing category indicates that the candidate is able to identify a measureable attribute but does not describe them accurately. This could include the incorrect use of terms such as “more of”, “less of”, “taller than”, and “shorter than.” |
| * Provide opportunities for student to measure various objects. Have conversations to ensure that students aligns or measures objects each time. * Longer or shorter than 10 cubes? (attached) * Heavier or lighter than 10 cubes? (attached) |
| **Meets Expectations** | Description:  Student work in the Meets Expectations category provides evidence that the student knows what a measureable attribute is, and correctly uses the phrases to describe the measureable attributes. |
| * Practice measuring familiar classroom objects using non - standard units of measure such as: cubes, paper clips, inch cubes, etc. * Longer or shorter than 10 cubes? (attached) * Heavier or lighter than 10 cubes? (attached) |

**Longer or shorter than 10 cubes?**

Students make a measuring tool that is 10 multi-link (pop) cubes long. Students spend time looking for objects in the classroom that are shorter than and longer than 10 multi-link (pop) cubes. Students can use the attached activity sheet.

**Heavier or lighter than 10 cubes?**

Students need a two tub balance. In one balance they should put 10 cubes. Students should place objects in the other tub to determine if they are heavier or lighter than 10 cubes. Students can use the attached activity sheet.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ OR \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Than 10 Cubes**

|  |  |
| --- | --- |
| **Object** | **Attribute** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| **Classifying Objects into Different Categories** | |
| Example Tasks:  Materials: A pile of 10 multi-link (pop) cubes or other counters that includes 3 different colors.  Teacher: “Can you sort these (objects) by color?” | |
| **MEASUREMENT AND DATA**  **Classify objects and count the number of objects in each category.**  **K.MD.3** Classify objects into given categories; ~~count the numbers of objects in each category and sort the categories by count.~~ | |
| **Not Yet Proficient** | Description:  Student work in the Not Yet Proficient category includes misconceptions about how to classify and group objects based on any attribute at all. |
| * Have students sort objects that only have 2 groups (e.g., 2 colors, 2 sizes of shapes, 2 groups of shaded/striped/blank objects. * Have conversations with students about what colors they see. Ask, “Can you put all of the (attribute) ones in a pile?” Ask students, “Are the other shapes alike? Can they be put into a pile?” |
| **Progressing** | Description:  Student work in the Progressing category shows that students are able to classify and group some objects into categories. Either the student inconsistently classifies and groups objects or they classify and group objects but make errors during the process. |
| * Have students sort objects that have 3 groups (e.g., 3 colors, 3 sizes of shapes, 3 groups of shaded/striped/blank objects. * Have conversations with students about what colors they see. Ask, “Can you put all of the (attribute) ones in a pile?” Ask students, “Are any of the other shapes alike? Can they be put into a pile?” With attributes that can be sorted into 3 groups, students will likely find all of one attribute (e.g., red), then look at the leftover pile of red and yellow, and then make a pile of one of the remaining colors until they have 3 groups. |
| **Meets Expectations** | Description:  Student work in the Meets Expectations category includes correct and accurate classifying and grouping of objects. Students are ready to begin to count the number of objects in each group, which is the expectation by the end of Kindergarten. |
| * Provide opportunities for students to sort objects then count the number of objects in each group, which is the full standard expected by the end of the year. Start with sorts in which a group will not have any more than 5 objects in the group (e.g., 4 blue, 3 red, and 3 yellow). After students have demonstrated they can do that successfully, then gradually increase numbers so that a group could have up to 10 objects (e.g., 9 blue, 8 red, and 7 yellow). * Sorts can be by color, size, and shaded/striped/blank objects. After the geometry unit, sorts can also be by shapes. |

|  |  |
| --- | --- |
| **Describing Objects in the Environment** | |
| Example Tasks:  Materials: Three multi-link (pop) cubes or counters that are different colors.  Task: Can you put the red cube in front of the blue cube? Can you put the yellow cube behind the blue cube?  Task: Can you put the red cube to the left of the yellow cube? Can you put the blue cube to the right of the yellow cube? | |
| **MEASUREMENT AND DATA**  **Identify and describe shapes.**  **K.G.1** Describe objects in the environment using names of shapes, and describe the relative positions of objects using positional terms. | |
| **Not Yet Proficient** | Description:  Student work in the Not Yet Proficient category includes misconceptions about most positional vocabulary terms. |
| * Provide students opportunities to place objects in front of, behind, to the left of, and to the right of other objects. E.g.: Give students a few different colored cubes. Place a cube on the desk and ask the student, “Can you place a \_\_\_ colored cube to the left of the cube? Now can you place a \_\_\_ colored cube to the right of the cube.” The activity can be repeated with the phrases in front of, behind, on top of, and under. * Discuss with students positional words and act out the words with people, counters/cubes. |
| **Progressing** | * Provide students opportunities to place objects in front of, behind, to the left of, and to the right of other objects. E.g.: Give students a few different colored cubes. Place a cube on the desk and ask the student, “Can you place a \_\_\_ colored cube to the left of the cube? Now can you place a \_\_\_ colored cube to the right of the cube.” The activity can be repeated with the phrases in front of, behind, on top of, and under. * Give students a tic tac toe boar. Students draw different symbols in each box. Then students orally tell a classmate or the teacher a statement about the position of two objects, such as “the X is to the right of the smiley face.” |
| **Meets Expectations** | * Provide experiences to work on other standards. |

\*Since the names of shapes have not been taught, this work should primarily be done with colored counters to emphasize the positional vocabulary.