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| **NC.2.OA.3****Even or Odd?** |
| **Domain** | Operations and Algebraic Thinking |
| **Cluster** | Work with equal groups. |
| **Standard(s)** | **NC.2.OA.3**  Determine whether a group of objects, within 20, has an odd or even number of members by:* Pairing objects, then counting them by 2s
* Determining whether objects can be placed into equal groups
* Writing an equation to express an even number as the sum of two equal addends
 |
| **Materials** | student form, pencil, cubes or other manipulatives (optional) |
| **Task** | State to students: *These numerals represent the number of people in a group. Decide if each group of people has an odd number of members or an even number of members. Circle* ***odd*** *or* ***even****. Justify your answers. Write an equation with two addends that represents that group. If the number is even, write an equation that proves the number is even.*  |

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| **Continuum of Understanding**  |
| **Not Yet Proficient** | Needs prerequisite concepts: | **Checklist for teacher to identify mastery of standard:*** Pairs group members or puts them into two equal groups
* Clear justification
* Writes an equation with two addends that represents that group (addends can be equal if there are an even number of group members)
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| **Progressing** | Student does one or two of the following:* Correctly identifies group as odd or even
* Explanation justifies even/odd concept
* Equation represents grouping (addends are equal if there are an even number of group members)
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| **Meets Expectation** | * Correctly pairs groups as even or odd by pairing members or divides group into two parts
* Clear justification
* Writes an equation to correctly express group members with two addends.
* Recognizes that only even numbers can have equations with equal addends. (6 + 6 = 12)
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| **Standards for Mathematical Practice** |
| **1. Make sense and persevere in solving problems.** |
| **2. Reason abstractly and quantitatively.** |
| 3. Construct viable arguments and critique the reasoning of others. |
| **4. Model with mathematics.** |
| **5. Use appropriate tools strategically.** |
| **6. Attend to precision.** |
| 7. Look for and make use of structure. |
| 8. Look for and express regularity in repeated reasoning. |

**Directions:** These numerals represent the number of people in a group. Decide if each group of people has an odd number of members or an even number of members. Circle **odd** or **even**. Justify your answers. Write an equation with two addends to represent the group. If the number is even, write an equation that proves the number is even.

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| **9** | **12** |
| **odd or even** | **odd or even** |
| **Show your work.** | **Show your work.** |
| **Equation:** | **Equation:** |