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| **Applying Transformations to 2-D Shapes** | | |
| Identifies congruent shapes with same orientation    “These shapes are congruent because they have the same shape and size and are facing  the same way.” | Identifies congruent shapes with different orientations (uses physical movement)    “These shapes are congruent because  when I turn one shape,  it matches the other shape exactly.” | Identifies congruent shapes with different orientations (uses visualization)    “These shapes are congruent because  I can picture turning one shape  half a turn to match the other.” |
| **Observations/Documentation** | | |
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| **Applying Transformations to 2-D Shapes (con’t)** | | |
| Identifies translations but struggles to differentiate between reflections and rotations    “I would translate A to the right to get B.  I’m not sure whether I would reflect or rotate C  to get D.” | Performs the transformation needed to match two congruent shapes (i.e., rotation, reflection, or translation)    “I used a Mira and the two shapes matched exactly. So, Shape C was reflected.” | Uses orientation to flexibly predict and describe transformation of congruent shapes    “From A to B: same orientation, so translation  to the right; from C to D: opposite orientations,  so a reflection in vertical line between C and D;  from E to F: different orientations,  so quarter-turn clockwise rotation.” |
| **Observations/Documentation** | | |
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