How Art Lessons in the Classroom Aligns with Common Core Standards: Math

| Concept | CC Math Standard | Description of Standard | Corresponding ALIC Lesson |
| :---: | :---: | :---: | :---: |
| Counting | K.CC.B.5. | Count to answer "how many" questions about as many things arranged in a line, a rectangular array, or a circle. | K Lesson 9 |
| Shapes, relative positions of objects | K.G.A.1. | Describe objects in the environment using names of shapes, and describe the relative positions of these objects: above, below, beside. | K Lesson 5 |
| Shapes | K.G.A.2. | Correctly name shapes regardless of their orientations or overall size. | K Lesson 4 |
| Shapes | K.G.B.5. | Model shapes in the world by building shapes from components and drawing shapes. | K Lesson 4 <br> K Lesson 5 <br> K Lesson 9 <br> K Lesson 10 |
| Classifying and counting | K.MD.B.3. | Classify objects into given categories; count the number of objects in each category and sort the categories by count. | K Lesson 1 |
| Defining attributes vs. nondefining attributes in shapes | 1.G.A.1. | Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes. | 1st Grade Lesson 1 1st Grade Lesson 4 1st Grade Lesson 10 |
| Partitioning shapes: halves, fourths, quarters | 1.G.A.3. | Partition circles and rectangles into two and four equal shares using the words "halves", "fourths" and "quarters". Describe the whole as two of or four of the shares. | 1st Grade Lesson 10 |
| Ordering objects by lengths | 1.MD.A.1. | Order three objects by length; compare the lengths of two objects indirectly by using a third object. | 1st Grade Lesson 1 |
| Recognizing attributes; identifying shapes | 2.G.A.1. | Recognize and draw shapes having specific attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons and cubes. | 2nd Grade Lesson 3 |
| Shared attributes in shapes; categories of shapes | 3.G.A.1. | Understand that shapes in different categories may share attributes and that the shared attributes can define a larger category. Recognize rhombuses, rectangles and squares as quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories. | 3rd Grade Lesson 2 |

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| Multiplication, division | 3.OA.C.7. | Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division or properties of operations. | 3rd Grade Lesson 7 |
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| Lines and two-dimensional figures | 4.G.A.1. | Draw points, lines, line segments, rays, angles, and parallel and perpendicular lines. Identify these in two dimensional figures. | 4th Grade Lesson 7 |
| Lines and two-dimensional figures; right triangles | 4.G.A.2. | Classify two-dimensional figures based on the absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category and identify right triangles. | 4th Grade Lesson 8 4th Grade Lesson 9 |
| Adding and subtracting fractions | 4.NF.B,3.a. | Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. | 4th Grade Lesson 1 |
| Attributes | 5.G.B.3. | Understand that attributes belonging to a category of two-dimensional figures also belong to subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles. | 5th Grade Lesson 2 |
| Volume | 5.MD.C.3. | Recognize volume as an attribute of solid figures and understand concepts of volume measurement. | 5th Grade Lesson 7 |
| Area of shapes | 6.G.1. | Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems. | 6th Grade Lesson 1 6th Grade Lesson 5 |
| Three-dimensional figures | 6.G.4. | Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems. | 6th Grade Lesson 5 |
| Fractions | 6.NS.1. | Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. | 6th Grade Lesson 4 |
| Ratios | 6.RP.1. | Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. | 6th Grade Lesson 4 |

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| Ratios | 6.RP.3.d. | Use ratio reasoning to convert measurement units; manipulate and <br> transform units appropriately when multiplying or dividing quantities. | 5th Grade Lesson 8 <br> 6th Grade Lesson 4 <br> 6th Grade Lesson 6 |
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