Learning Material Covered in Each Elementary School Cycle

Geometry, pp. 14, 15 and 16			
A. Space, p. 14			
Cycle One	**Cycle Two**	**Cycle Three**	**Reminder**
p. 14, no. A-3 Locates objects on an axis (based on the types of numbers studied) p. 14, no. A-2 Locates objects in a plane p. 14, no. A- 4 Locates points in a Cartesian plane a. in the first quadrant	p. 14, no. A-3 Locates objects on an axis (based on the types of numbers studied) p. 14, no. A-2 Locates objects in a plane p. 14, no. A- 4 Locates points in a Cartesian plane a. in the first quadrant	p. 14, no. A-3 Locates objects on an axis (based on the types of numbers studied) p. 14, no. A- 4 Locates points in a Cartesian plane b. in all four quadrants	Activities that involve locating objects on an axis are carried out using the numbers to be studied, as indicated in the table *Understanding and writing numbers.* In Cycle One, games are used to introduce students to the concept of locating points in a plane (e.g. battleship games and chess). These games prepare students for activities that involve locating objects in the first quadrant of the Cartesian plane. The second, third and fourth quadrants of the Cartesian plane are not covered until Cycle Three, because negative integers are not introduced until Cycle Three.

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B. Solids, pp. 14-15			
Cycle One	**Cycle Two**	**Cycle Three**	**Reminder**
p. 15, no. B-8 **Second year of Cycle Two (Grade 2)** Matches the net of a. a **prism** to the corresponding prism and vice versa b. a **pyramid** to the corresponding pyramid and vice versa	p. 15, no. B-8 Matches the net of a. a **prism** to the corresponding prism and vice versa b. a **pyramid** to the corresponding pyramid and vice versa p. 15, no. B-7 Constructs a net of a **prism** or a **pyramid**	p. 15, no. B-8 Matches the net of c. a convex polyhedron to the corresponding convex polyhedron	There is a difference between *matching the net of a solid to the corresponding solid* and *constructing the net of a solid.* When I *match*, I **associate** the representation of the net with the representation of the solid, or the corresponding solid. When I *construct*, I use plane figures to **represent** the faces of a solid. To develop spatial sense, students must first manipulate and observe objects.
C. Plane figures, p. 15			
Cycle One	**Cycle Two**	**Cycle Three**	**Reminder**
p. 15, no. C-1 Compares and constructs figures made with closed curved lines or closed straight lines	p. 15, no. C-5 Identifies and constructs parallel lines and perpendicular lines p. 15, no. C-4 Describes convex and nonconvex polygons		In Cycle One, students construct figures free hand, imprecisely or using graph paper. In Cycle Two, students construct parallel and perpendicular lines using grids, set squares, rulers or tracing paper. Cycle Two students describe and name polygons they see in their environment (e.g. a stop sign is an octagon). Students are expected to be able to identify polygons with 3, 4, 5, 6, 8 and 10 sides.

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Learning Material Covered in Each Elementary School Cycle

D. Frieze patterns and tessellations, pp. 15-16			
Cycle One	**Cycle Two**	**Cycle Three**	**Reminder**
p. 16, no. D-2 Observes and produces patterns using geometric figures	p. 16, no. D-2 Observes and produces patterns using geometric figures		Cycle One students begin learning about patterns by observing and producing non-numerical patterns consisting of geometric figures (See p. 12, no. A-13 a).
	p. 16, no. D-3 Observes and produces frieze patterns and tessellations a. using reflections	p. 16, no. D-3 Observes and produces frieze patterns and tessellations b. using translations	Geometric transformations (reflections and translations) are **always** performed in the context of frieze patterns and tessellations. They are produced using grids, tracing paper, technology, etc.

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