



Sample Lesson

National Standards Curriculum (N.S.C)

Grade : 2

Strand: Geometry

Topic: Paths

Sub-Topic: Closed Paths

Duration: 60 Minutes

Standard: Students will apply geometric concepts (points, paths, lines, shapes) to reason about objects and space in the environment.

Benchmark 2.3.1

Explore ideas of points, paths, lines, and shapes and relate these to objects in the environment.

Attainment Target -7: Explore paths and/or shapes in the environment and relate basic Mathematical shapes to everyday life.

Specific Objectives: By the end of the lesson the students will be able to:

- i. Identify and show points on, outside or inside a simple closed path.
- ii. Create closed paths bounded by straight line segments

Pre-requisite Knowledge: Students should already know

- i. How to draw a simple closed path
- ii. How to identify a point

Skills: Draw, make inference, create

Materials Needed/Manipulatives: A map of a community, assessment sheet, hundred chart

Key Vocabulary: closed paths, shape, point

Content Outline: A simple closed path is a path that starts and ends at the same point without the path crossing

Enriching Learning Activities:

ENGAGE/COMMUNICATE: allow the students to stand in an open space not too far from each other. Ask students to hold hands until they form a ring or closed path. Ensure that some students are within and some are outside the ring formed. The ones inside the ring will raise one of their hands while the ones outside will stoop. Brief discussion will ensue. Students will be asked to tell the shape formed when they joined hands.

EXPLORE/COLLABORATE: The students and teacher will draw a representation of the activity done. The first initial of each student's name and a dot will be used to identify their position on the ring, outside the ring and within the ring. [*This is done to help students understand that each of them represents a point*]. In groups, give students a small map to identify the point on it, such as the school, play ground, etc. (See Resource Document for map, page 5)

Using the map, allow students to identify a simple closed path in their groups. For example: From the Bank to the play ground, to the gas station, then the school, then KFC and then back to the bank. Once identified students should represent the path using the dots in their books or on the blank paper by drawing lines to connect them.

EXPLAIN: When students are through with the task allow them to show their paths and have them say whether or not the path is closed giving their reasons. Using the dots and the close path drawn, ask students to identify points inside the close path. Allow students to refer to the map to tell which of the point(s) is/are inside the closed path. The same should be done for identifying points on the outside of the close path.

EVALUATE (students) /CREATIVITY: Give students a series of points. In each set of dots there are two figures; one being a rectangle and the other a triangle. Allow students to draw a simple closed path that puts the triangle on the inside and the rectangle on the outside. [See page 4 of this document]. For students who are more hands on, you could allow them to use cut out strips to enclose the paths desired.

Show students a "hundred chart" with a path traced out on it. Play a game of "I spy" with the students. [See page 5 of this document]. Start by allowing students to identify some of the points on the path. For example: I spy a number that has 2 Hundreds, 5 tens and 3 ones, where is this number? The students' response should be two hundred, fifty-three (253). The students should also state whether the number is inside or outside of the closed path.

EXTEND: Students will be asked to place these letters in two groups on a T-chart based on whether it has a closed or open path.

Extended Cont'd

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z

Teacher Evaluation

<i>What percentage of students able to:</i>	0% - 50%	51% - 80%	81% - 100%
Name and identify basic geometric ideas, such as ring, circle, points and closed paths or open paths.			
Create closed paths using straight line segments.			
Identify points on a closed path			
Identify points inside and outside a closed path			
Identify paths that are not closed (open paths)- <i>Extended</i>			
Work cooperatively in groups			

Comments:

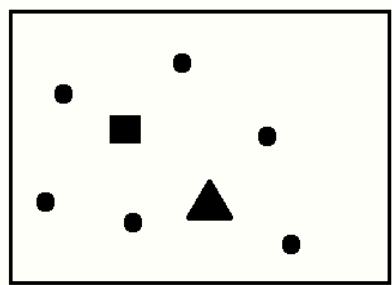
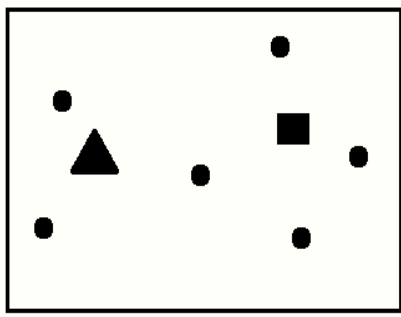
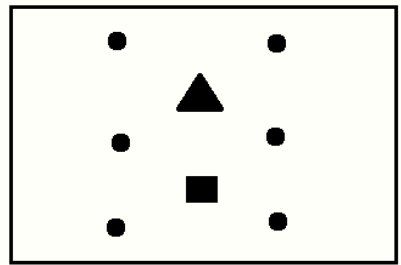
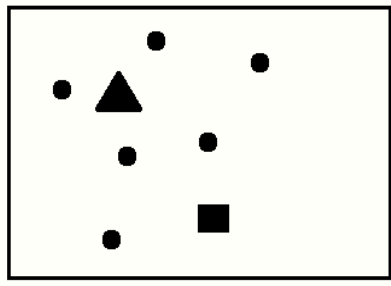
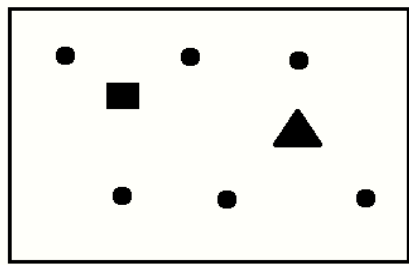
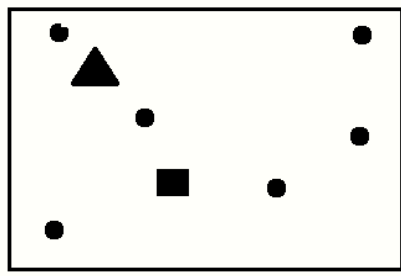
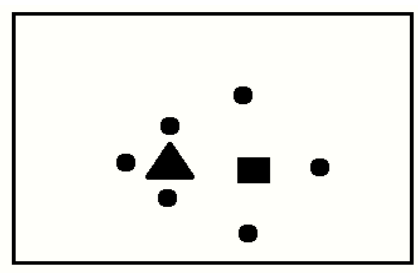
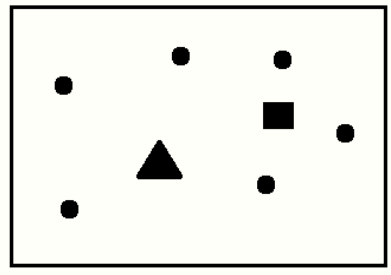
Areas of strengths

Areas of weaknesses

Actions to be taken

- Re-teach Concept
- Reinforcement of Concept

Advance to
New Topic
Assessment Task



Hundred Chart- I Spy Game

201	202	203	204	205	206	207	208	209	210
211	212	213	214	215	216	207	218	219	220
221	222	223	224	225	226	227	228	229	230
231	232	233	234	235	236	237	238	239	240
241	242	243	244	245	246	247	248	249	250
251	252	253	254	255	256	257	258	259	260
261	262	263	264	265	266	267	268	269	270
271	272	273	274	275	276	277	278	279	280
281	282	283	284	285	286	287	288	289	290
291	292	293	294	295	296	297	298	299	300

Cut Out Strips.....



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