

<name>

Class: Honors Geometry

Date: <date>

Topic: Lesson 1-2 (Points, Lines and Planes)

Building blocks of  
Euclidean geometry

Points, lines and planes

Euclid

Greek mathematician

~300BC

Wrote series of books called “The Elements”

Books 1-6 are on plane geometry (Euclidean geometry)

Point

Basic unit of geometry

Has no size

Has only location

Draw as a small dot

Named by a capital letter

Undefined in Euclidean geometry

Space

The collection of all points

Line

Straight arrangement of points that extend forever in two directions

Has infinite length but no thickness

Named by:

- Any two points on the line (AB) w/a dbl headed arrow over it
- A lower case letter

Undefined in Euclidean geometry

Collinear points

Points on the same line

Example 1

<optional notes as needed>

Plane

A flat surface that extends forever.

Has no thickness.

Named by:

- At least 3 of its noncollinear points.
- A single capital letter.

Undefined in Euclidean geometry

Example 2

<optional notes as needed>

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Coplanar	Objects (lines, points, shapes, etc) that lie in same plane.
Axiom	An accepted statement of fact Also known as a postulate
Postulate 1-1	Thru any 2 points there is exactly 1 line
Postulate 1-2	2 lines intersect at exactly 1 point
Postulate 1-3	2 planes intersect at exactly 1 line
Example 3	<optional notes as needed>
Postulate 1-4	Exactly 1 plane thru any 3 noncollinear points.
Example 4	<optional notes as needed>