## 5-I Lines \& Angles

To identify relationships between figures in space
To identify angles formed by two lines and a transversal

## Transversal--A line that intersects two or more

 lines.circle the transversal:

Vertical Angles--Opposite (nonadjacent) angles formed by two intersecting lines

$$
\text { Example }<1,<7 . \begin{array}{ll}
\text { List } & \text { all vertical } \\
\text { angles: } & \Delta 1, k 7
\end{array}
$$

Vertical Angles Theorem - All vertical angles are

## congruent

## Corresponding Angles-Angles in

 the same position relative to a transversal and two other linesExample: $<1,<3$


Corresponding Angles Postulate - If a transversal intersects two parallel lines,
 then corresponding angles are congruent.

Alternate Interior Angles Theorem- If a transversal intersects two parallel lines, then alternate interior angles are congruent.

Alternate Exterior Angles-Angles on opposite sides of a transversal and outside two other lines
exterior
example $<!<5$. List all

Alternate Exterior Angles Theorem

- If a transversal intersects two
 parallel lines, then alternate exterior angles are congruent.

 transversal intersects two parallel lines, then sameside interior angles are supplementary.


## Consecutive Exterior-Angles on

 the same side of a transversal and .outs:d
## Consecutive Exterior Angles Theorem - If a

 transversal intersects two parallel lines, then sameside interior angles are supplementary.

