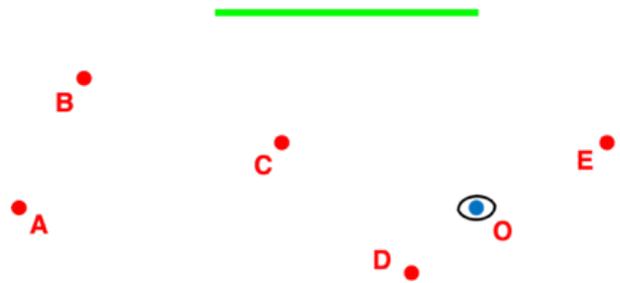


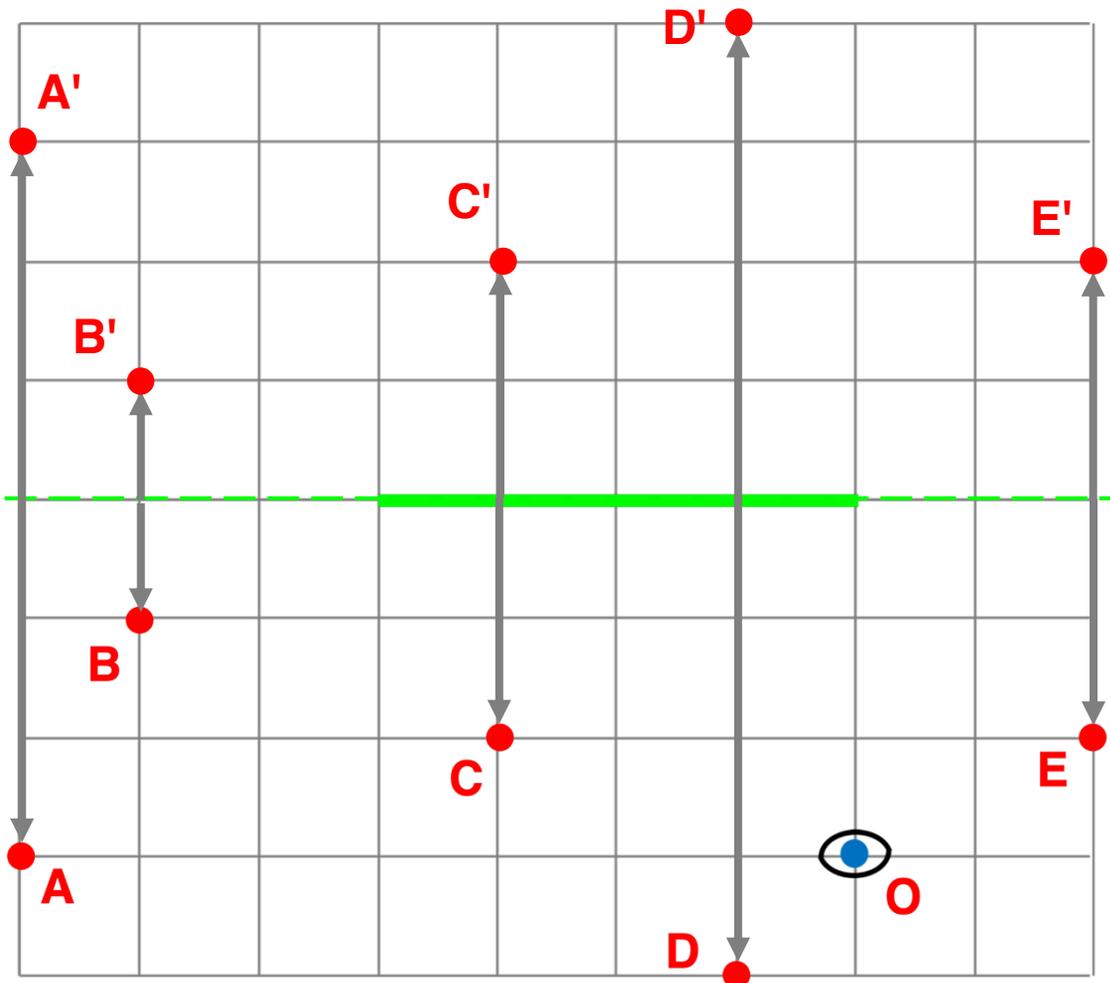
## Who Can See Who? Video Notes

Suppose you have five students sitting in front of a plane mirror ... and an Observer, marked O on the diagram. How can we predict which students the Observer sees in the mirror?



### Step 1: Locate the image of all students

Measure from each student to the mirror and directly across the mirror the same distance. Mark the image of student A and label it as A'. The prime symbol (') indicates image. Repeat this image-locating procedure for all students. A mirror extension line will be needed for Objects A, B and E.

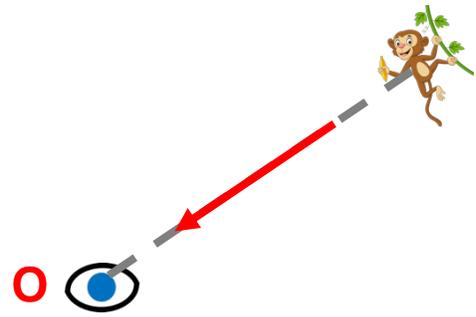


### Line of Sight Principle:

To see anything, you must sight along a line at that thing.

For instance, to see a monkey in the corner of the room, you must sight along a line at the monkey. You are able to see the monkey because light from the monkey travels along the line of sight to your eye.

Source: <https://www.vecteezy.com/>

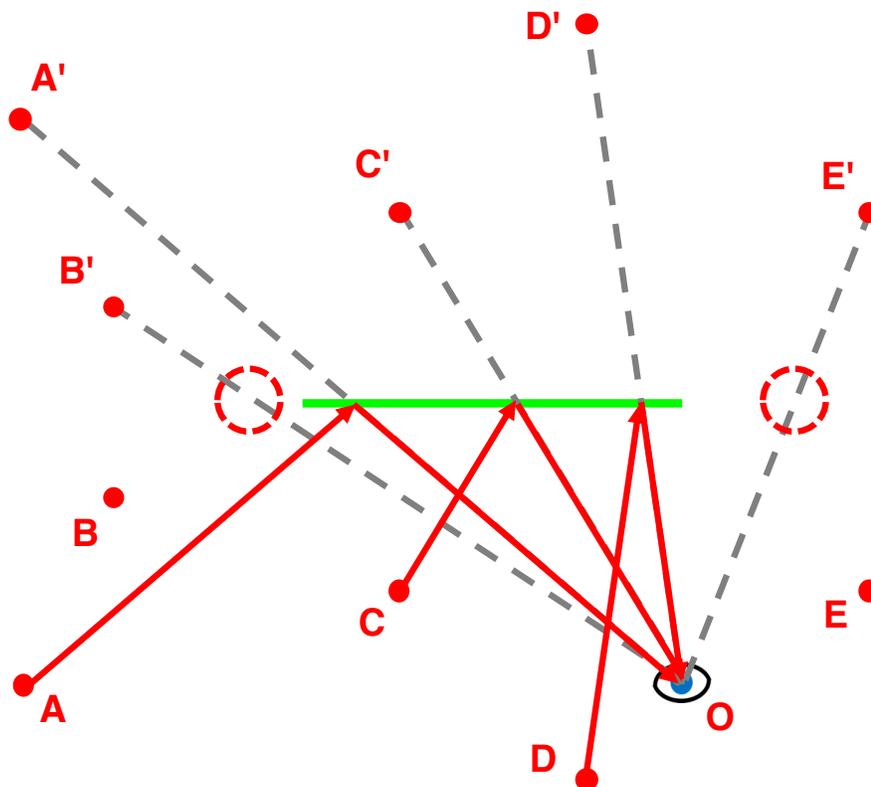


### Step 2: Use the Line-of-sight method to determine which image can be seen.

Align a sight line from the Observer to each student's image. If the sight line intersects the mirror, then the Observer will be able to see that student's image in the mirror.

**Example 1:** For Student A, the sight line to A's image intersects the mirror; light from Student A reflects off the mirror to the eye. The Observer can see Student A in the mirror.

**Example 2:** When the Observer sights at Student B's image, there is no mirror along that line of sight to reflect light to the Observer's eye. The Observer cannot see B in the mirror.



Students who can be seen: **A, C, and D**

Students who can NOT be seen: **B and E**