

Vernier Calipers

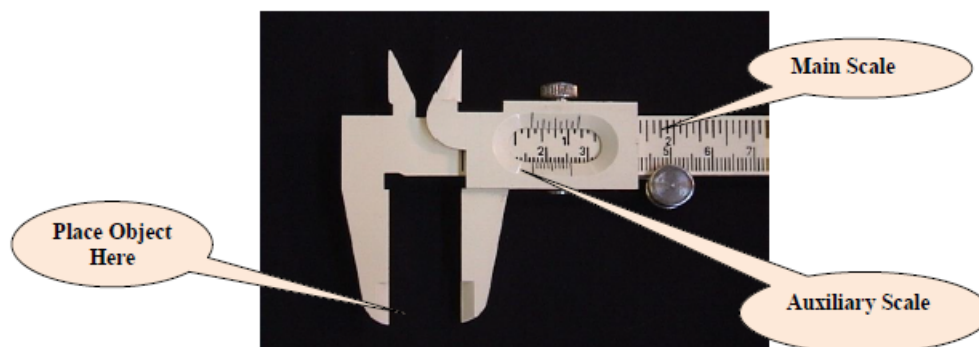


Figure 1

The vernier consists of a main scale engraved on a fixed ruler and an auxiliary vernier scale engraved on a movable jaw. The movable auxiliary scale is free to slide along the length of the fixed ruler. The object is placed between the movable jaws.

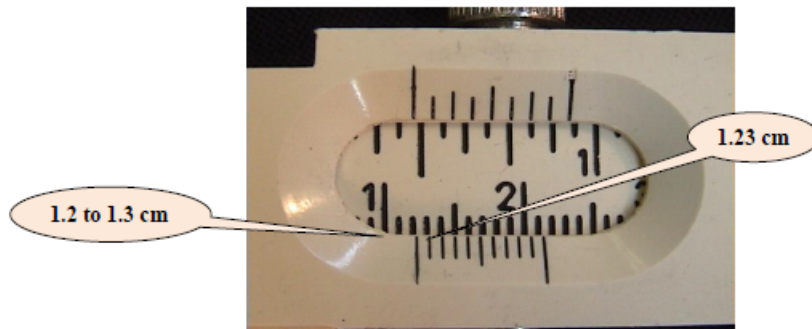


Figure 2

Once the vernier is positioned to make a reading, make a note of where the first mark on the auxiliary scale falls on the main scale. In the figure above, we see that the object's length is between 1.2 cm and 1.3 cm because the first auxiliary mark is between these two values on the main scale. The last digit (tenths of a millimeter) is found by noting which line on the auxiliary scale coincides with a mark on the main scale. In this example, the last digit is 3 because the third auxiliary mark lines up with a mark on the main scale. Therefore, the length of the object is 1.23 cm.

For more information go to <http://www.clemson.edu/ces/phoenix/labs/cupol/vernier/index.html>¹.

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