We sometimes locate things by familiar landmarks.
If I told you to meet me three and a half blocks down the street from the school, as long as you know the location of that particular school, it shouldn't be hard to find. But, what if you don't know the location of the school? Or, what if the place is in the middle of the a forest, or an ocean? Clearly, we must use a better way to find positions if we can't locate them by familiar landmarks.

Materials: Pen or Pencil   (No measuring devices are allowed!)
(The teacher will need a transparency to place dots on the senders' papers)

Procedure:

1. Set up a team of about four people. (Your group must be between 3 and 5 people.)

2. Break your team into two groups; the senders (A) and the receivers (B). (You will trade roles later.)

3. The teacher will use his master to place a small dot on one of the papers of the sending team. (Please save the clean copy for the time when we switch, and you become the receiving end.)

   Record the location code for your paper. _____

3. Communicate the location of your dot to the receiving team. It must be positioned so accurately that their dot falls within the small hole in the teacher's transparency sheet. You cannot use any measuring devices and you cannot show your paper to the receiving team.

4. How close did you come? _____

5. Reverse rolls; B becomes the sending team, and A the receiving team. Try to build on what you learned in the first part of the exercise.

Discussion:

A. Name two situations in which coordinates are used in our every day lives.

_____

2. How many coordinates are needed to locate a position on a flat surface? _____

   How many are needed in space? _____ How many in space/time? _____