Cloud Identification Exercise

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This simple active learning exercise helps students learn the nomenclature used in cloud identification, and familiarizes them with visual identification of clouds in a way that promotes personal interaction and discussion in small groups that report back to the entire class. It is intended for introductory meteorology courses. The learning objectives include memorization of new meteorological terms, application of these terms to images of clouds (identification), and use of these terms to explain or argue for their identification. This activity is highly scalable, that is, it will work well in small classroom settings as well as very large classroom settings (over 100 students) as long as students are able to move around freely in a space (whether this is inside or outside the classroom). It can also be customized for difficulty depending on the cloud types chosen.

Before class, the instructor prints a selection of 8-10 clouds (on a color printer) to make enough for each student in the class. In class, after a brief introduction of terms used to identify clouds, students are shown a simplified outline of the activity. Full instructions of the activity are:
1) Pass out individual cloud pictures (in random order) to each student in the room
2) Students are asked to use their newly-acquired meteorological terms to describe their clouds, and identify them (individually, in writing)
3) Students get up from their seats find others with the same cloud to form small groups
4) In small groups, students discuss their cloud and determine its type, write down their reasoning, and select a group speaker
5) The instructor walks around to each group to overhear discussion and guide groups who have trouble
6) When all groups have identified their cloud type, they rearrange themselves so the groups are organized left-to-right from low, middle, and high clouds (and vertically developing clouds where appropriate)
7) The instructor notes their order, and has the group speaker announce the cloud type for each group
8) Students return to their seats
9) The instructor shows projected images of each of the cloud types to the entire class, and calls on each group speaker to state their cloud type and explain the cloud's characteristics using meteorological terms
10) Solutions to the cloud activity are provided online or distributed to the class

This activity requires little preparation, helps students "personalize" what can otherwise be rote memorization, and once set up, is easy to use year after year.