Alternative Learning Tools in small group activities

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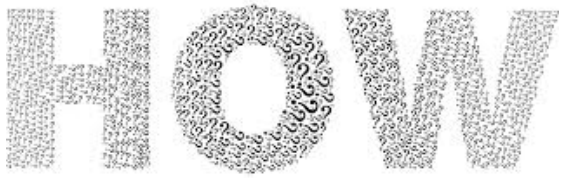
(Physics & Astronomy)

Outline

- Motivation

- Timing

- Tools



- Our activity

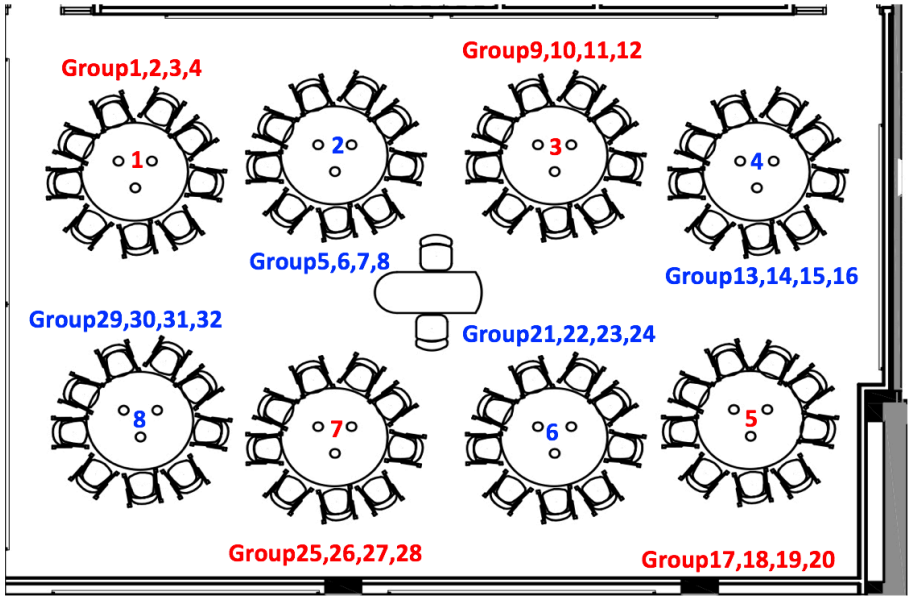
- Extensive lectures are not suited for Active Learning (AL) model
- Gauge class understanding/knowledge of new topic
- Address main gaps and misconceptions with activities or mini-lectures

- At a beginning, when starting a new general topic/unit, not yet discussed in class

WHEN

- At a beginning, when starting a new general topic/unit, not yet discussed in class

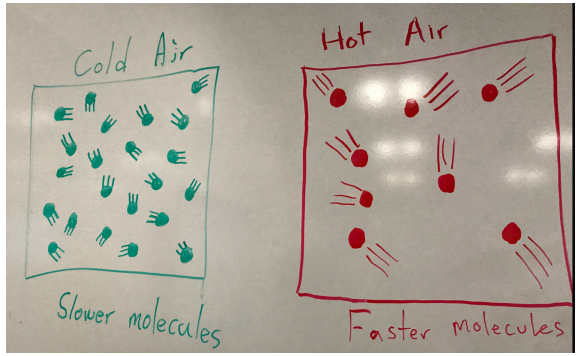
WHERE



HOW

- Think-pair-share

- Concept visualization



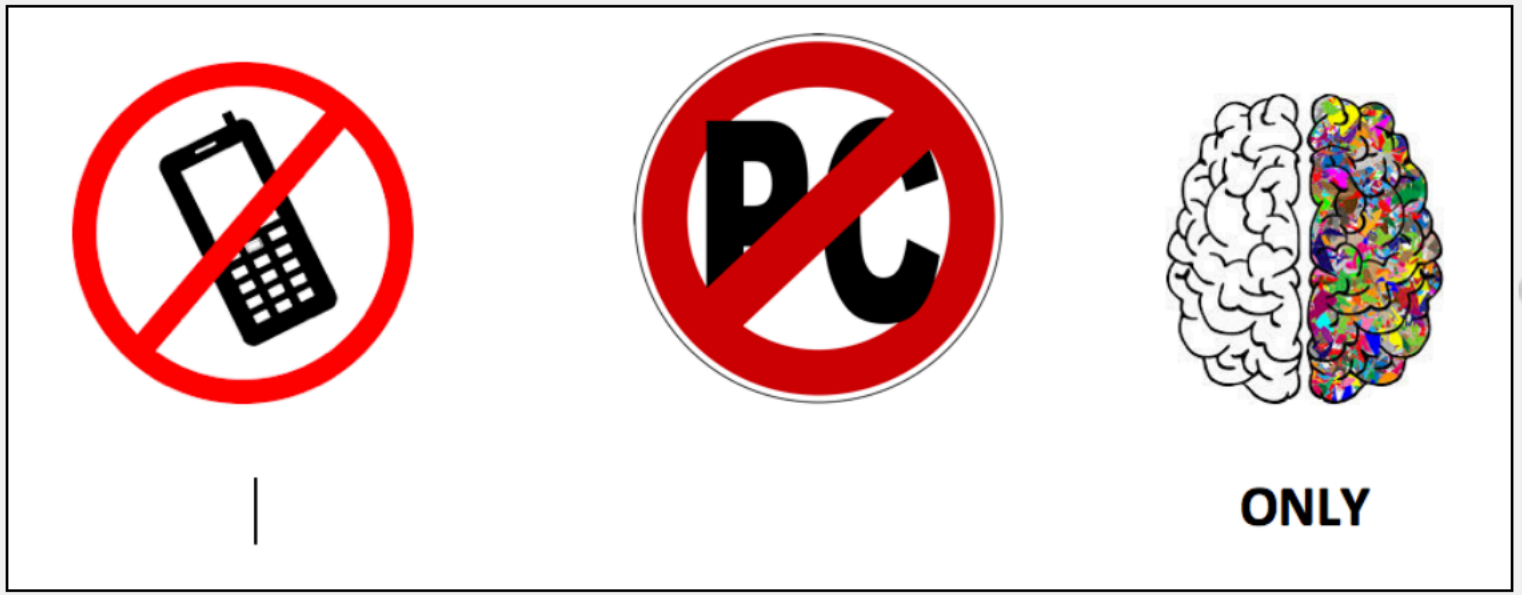
- Peer review

- Self reflection

WHAT

I) Without using any on-line resource, working in pairs and one group of three (for tables with 9 persons), each group should try to illustrate one of the following concepts (all 4 concepts should be illustrated at each table on the white board):

- the solar system and our place in it;
- the location of the solar system in the Galaxy;
- the location of our Galaxy in its neighborhood;
- the chronological order of events that led to us today.

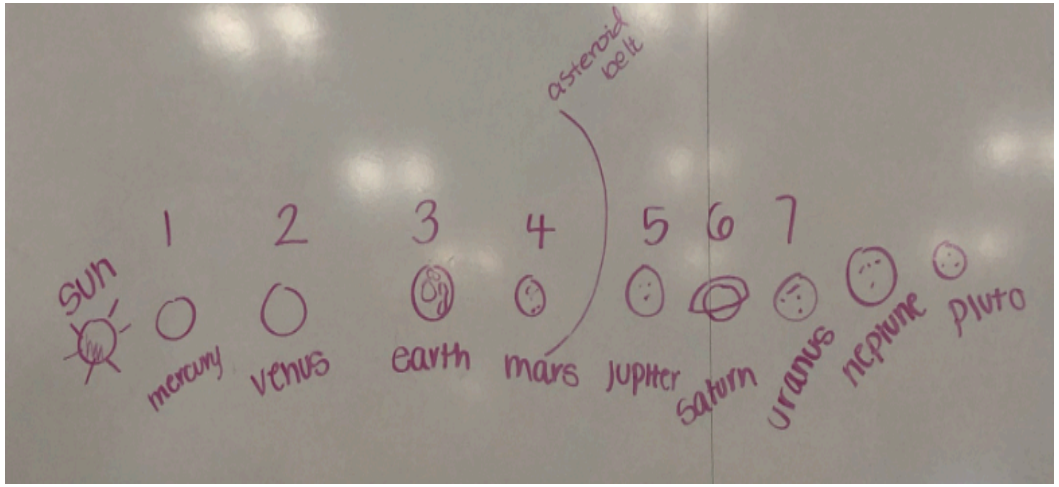


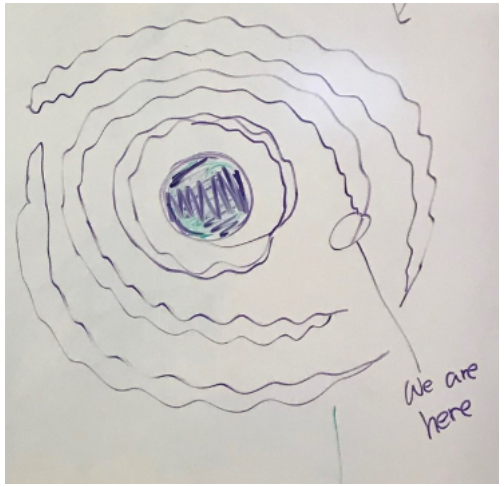
WHAT

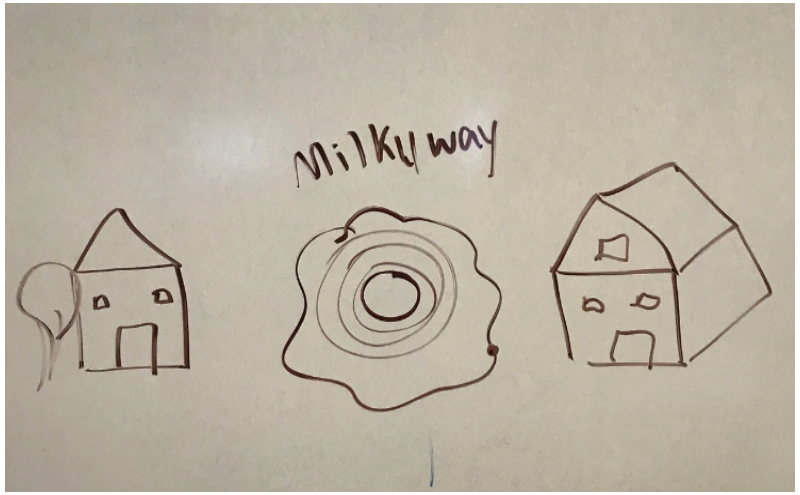
II) Each group should look at the other drawings at their table and provide their feedback and suggestions (try to find at least one positive aspect, and one aspect that can be improved). You can modify your illustration based on the suggestions.

III) Take a picture of your group illustration, which you will later submit using the Dropbox **with a caption** that explains it.

IV) After the lecture tutorial, watch the videos, and assess what you got right and what wrong in your drawing. Briefly assess your work in the submission Dropbox. (Note: there is one submission per group, not one per table).







Your Activity

- Think about a similar activity you may try in your class
- What aspects would you keep, what would you change?
- What are the main challenges?