

# Organizing Experiments

PUBS

September 19, 2017

# Tips for organization (in PUBS and beyond!):

1. Plan ahead
2. Develop a systematic way to implement experiments
3. Document thoroughly and regularly

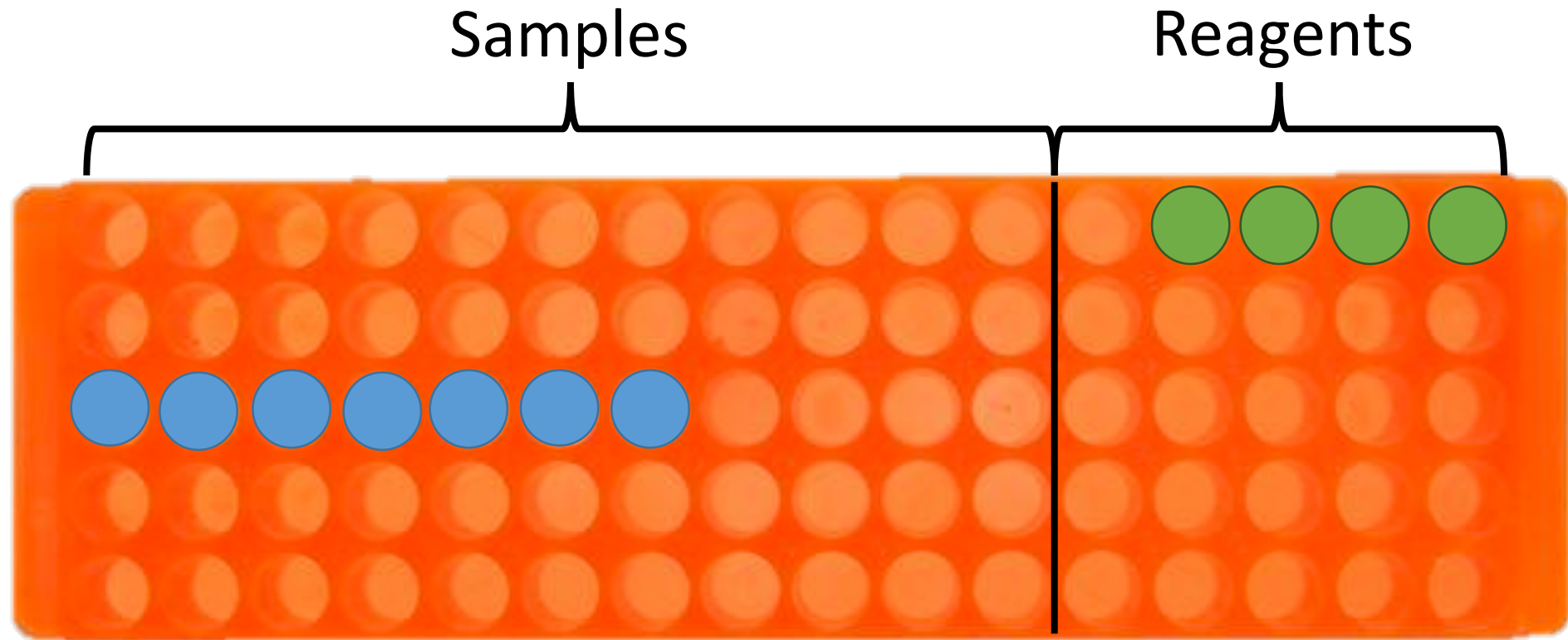
# Planning ahead

- Read all MSDS and be informed of dangers and best handling of materials
- Be aware of equipment dangers
- Perform calculations in advance (if possible)
- Thoroughly read protocols in advance and print out (if desired)
- Come to class with questions you can't figure out beforehand!

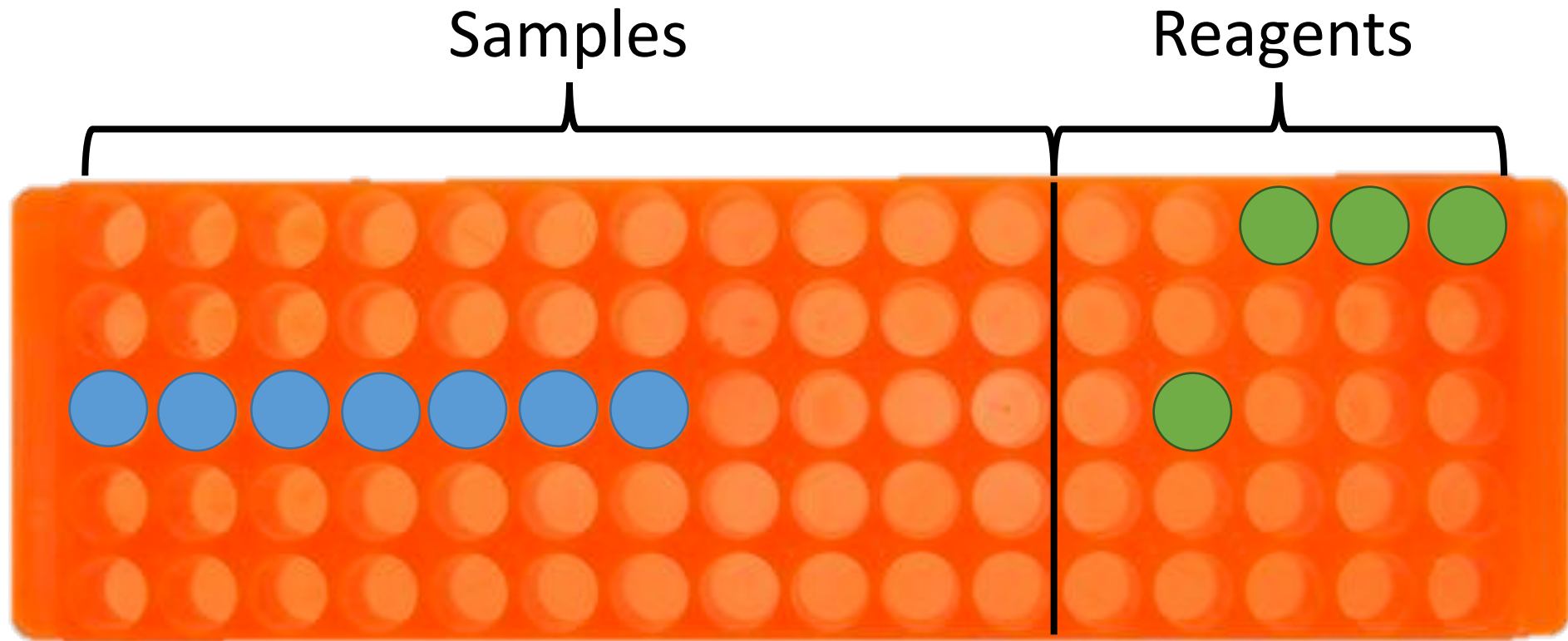
# Implementing experiments

- Label everything in a way that everyone can understand
  - Label dangerous compounds as such
  - If you develop a nomenclature system (ex: PUBS1, PUBS2, etc), make a spreadsheet that describes the sample associated with each name
- When possible, make a master mix to reduce pipetting error
- Keep time management in mind by making multiple small goals
- Develop a system for arranging samples in tube racks

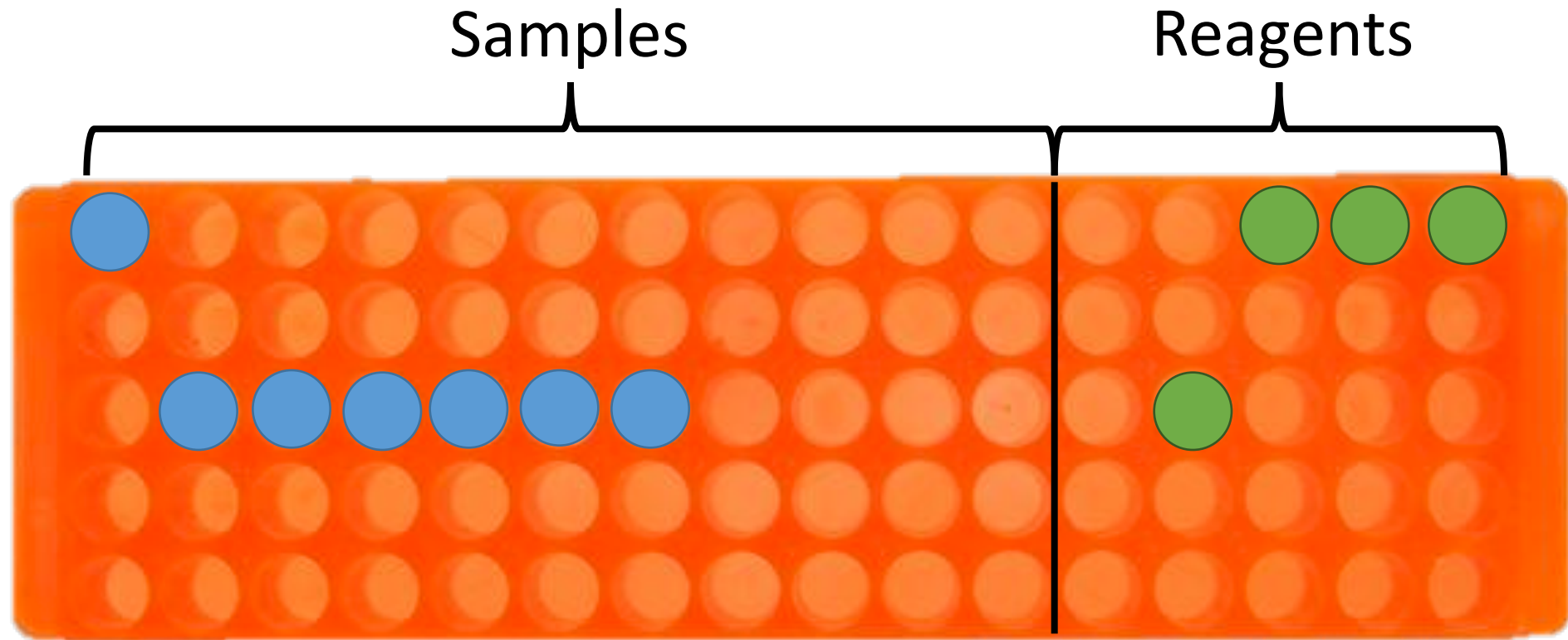
# Tube rack organization



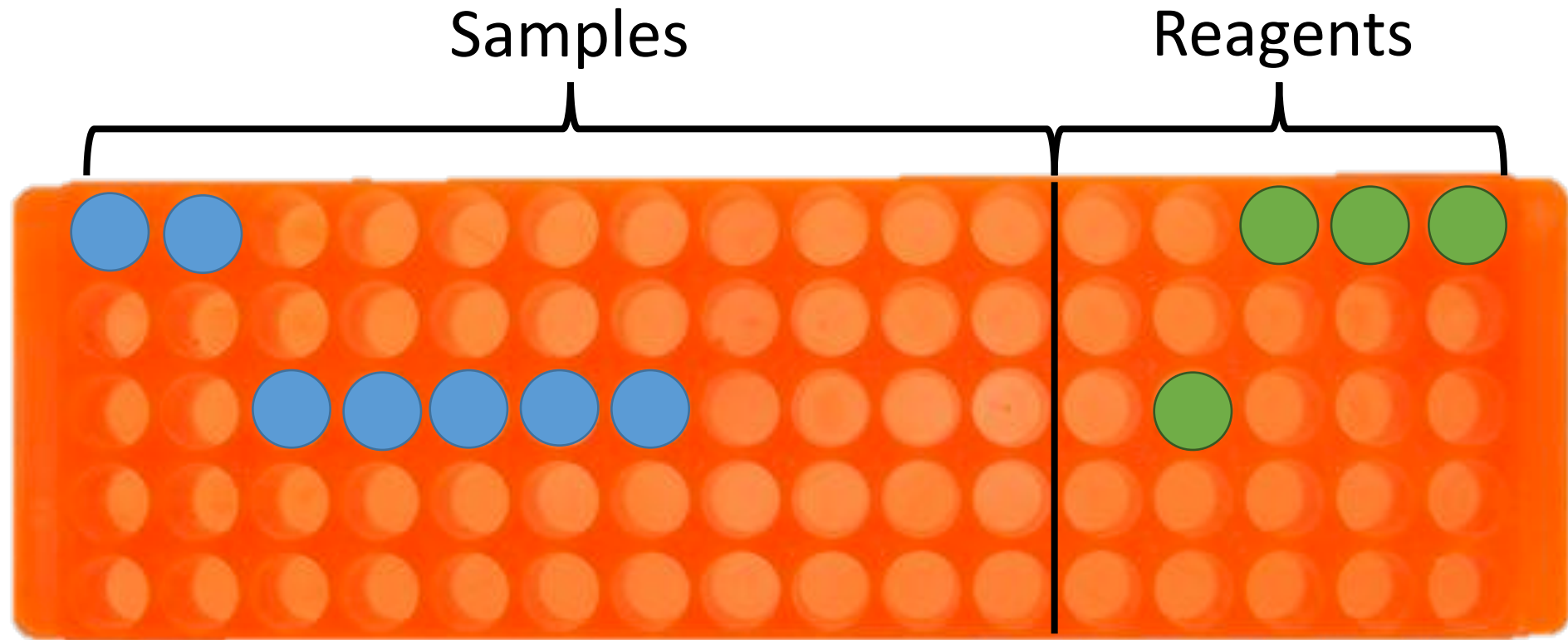
# Tube rack organization



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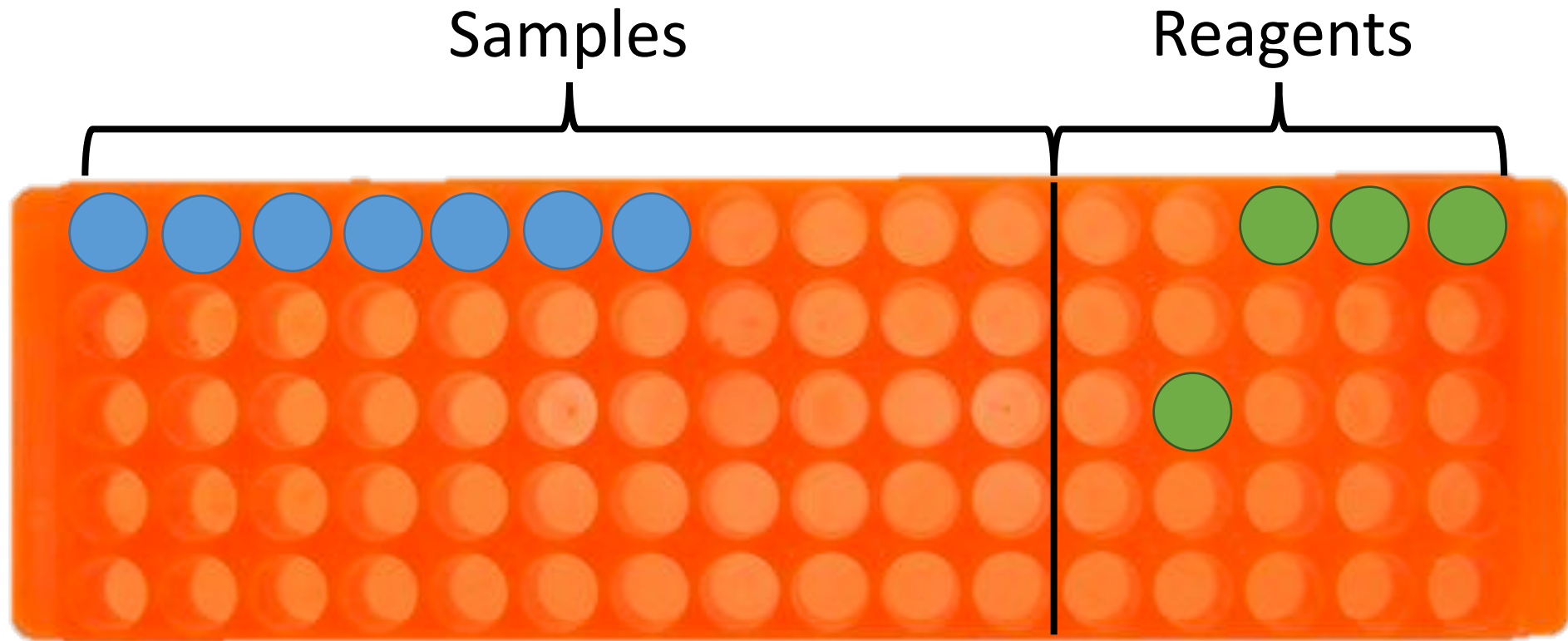


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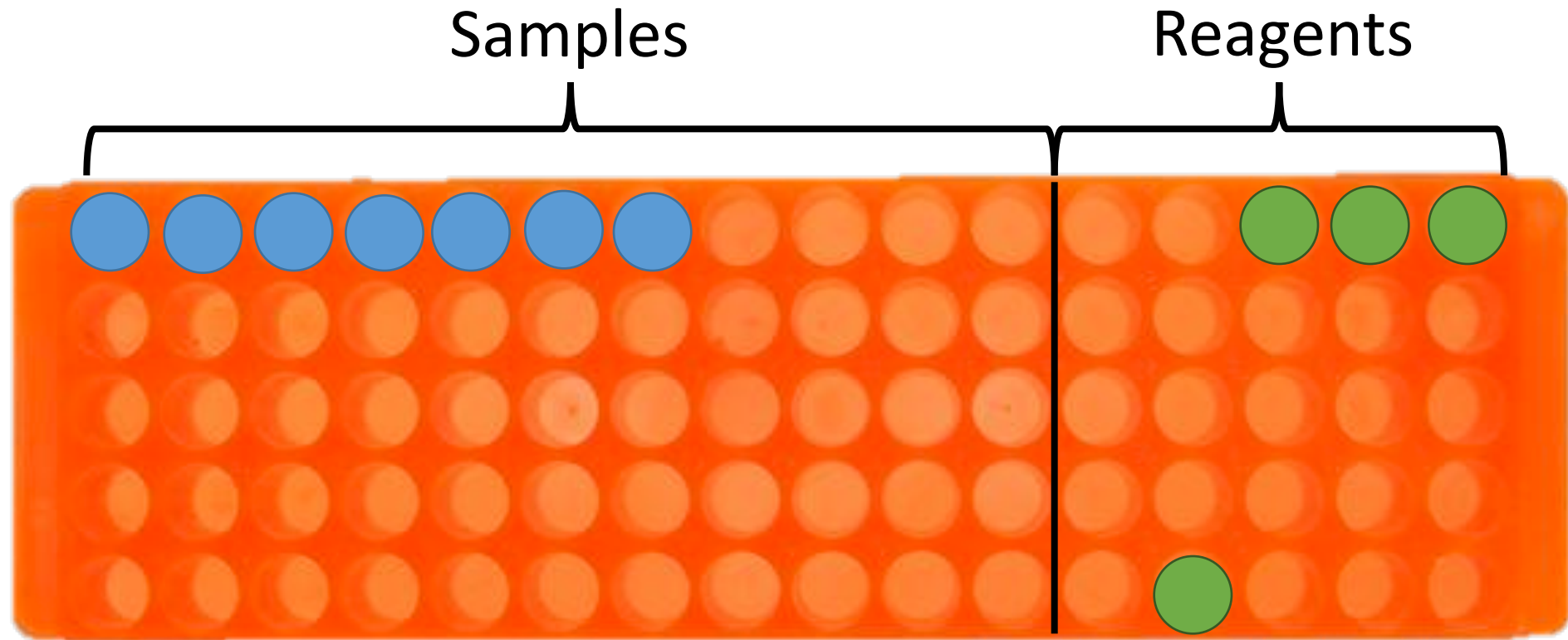




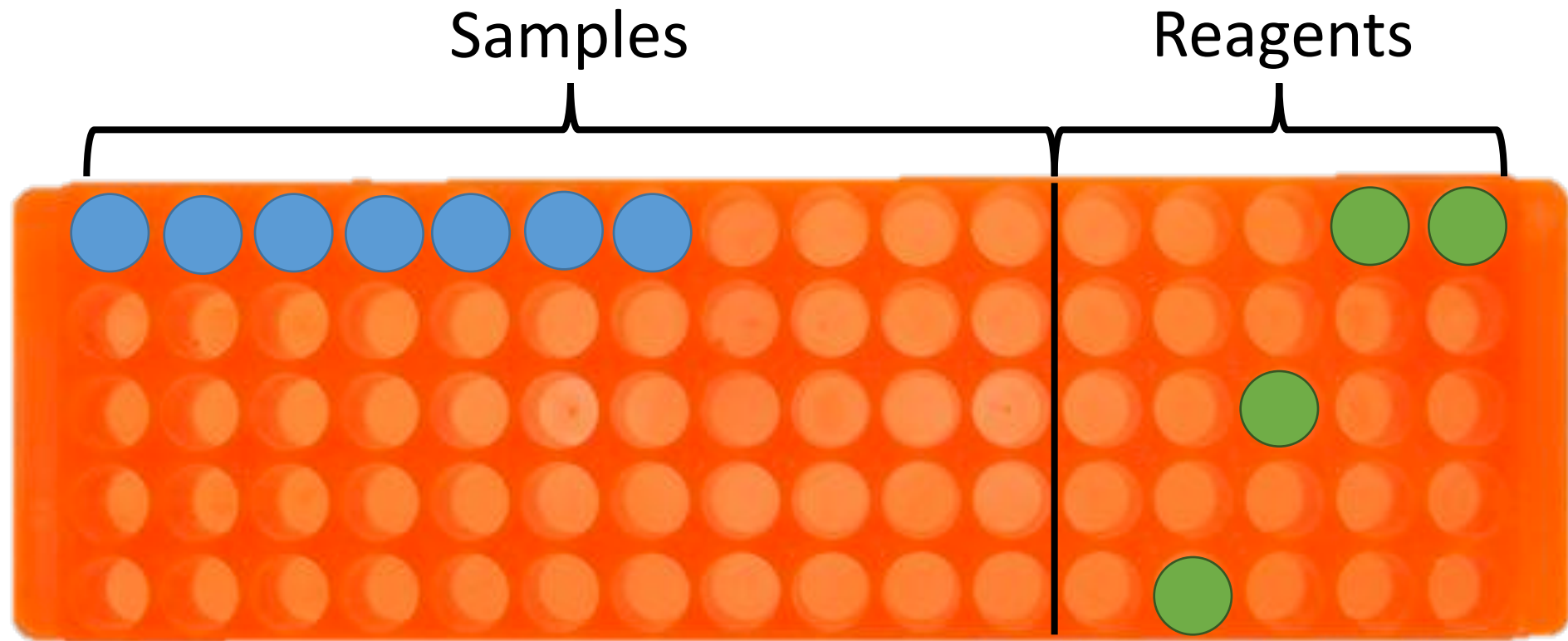
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# Documentation

- Make a shared notebook that everyone in your group can access (google docs, drive, etc)
- Record calculations—important for troubleshooting!
- Note deviations to printed protocols
- Record observations
- Document/comment your code