

# LAB DESIGN

Complete the following activity in pairs.

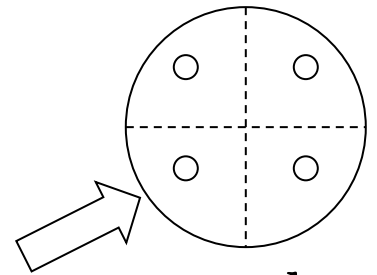
## MATERIALS

- 1 Petri dish
- Milk
- 3-4 different bottles of food coloring
- 1 dropper bottle of liquid soap

## DIRECTIONS

### Day 1

1. Fill a Petri dish with milk.
2. Put a drop of different color of food coloring in each quarter of the dish.
3. Put a single drop of liquid soap in the middle of your plate.
4. Record the following on your paper:
  - What do you see? Write/draw your observations.
  - Why do you think this is happening? Record your explanations with words and/or diagrams.
  - Ask new scientific questions (think about valid science process) about the process you observed. Share your questions with your partner. Choose ONE you could investigate IN CLASS tomorrow.



# DIRECTIONS

## Day 2

1. Design a lab investigation to answer your new question. Use your best science skills.
2. Record the following on your paper:
  - What do you predict is going to happen?
3. Have your teacher check your experiment.
4. Once you get your teacher's approval, obtain needed materials and perform your experiment.
5. Record the following on your paper:
  - What do you see? Write/draw your observations.
  - Why do you think this is happening? Record your explanations with words and/or diagrams.
6. Prepare a 30-Second Summary of your experiment. (This is not something you write in 30 seconds, but something you could share with the whole group in 30 seconds or less.) Be sure to include the following information:
  - Your question
  - Your hypothesis/prediction
  - Your experimental set up
  - Your results
  - Your conclusion/explanation