Lab practice 1

STAN
24/25

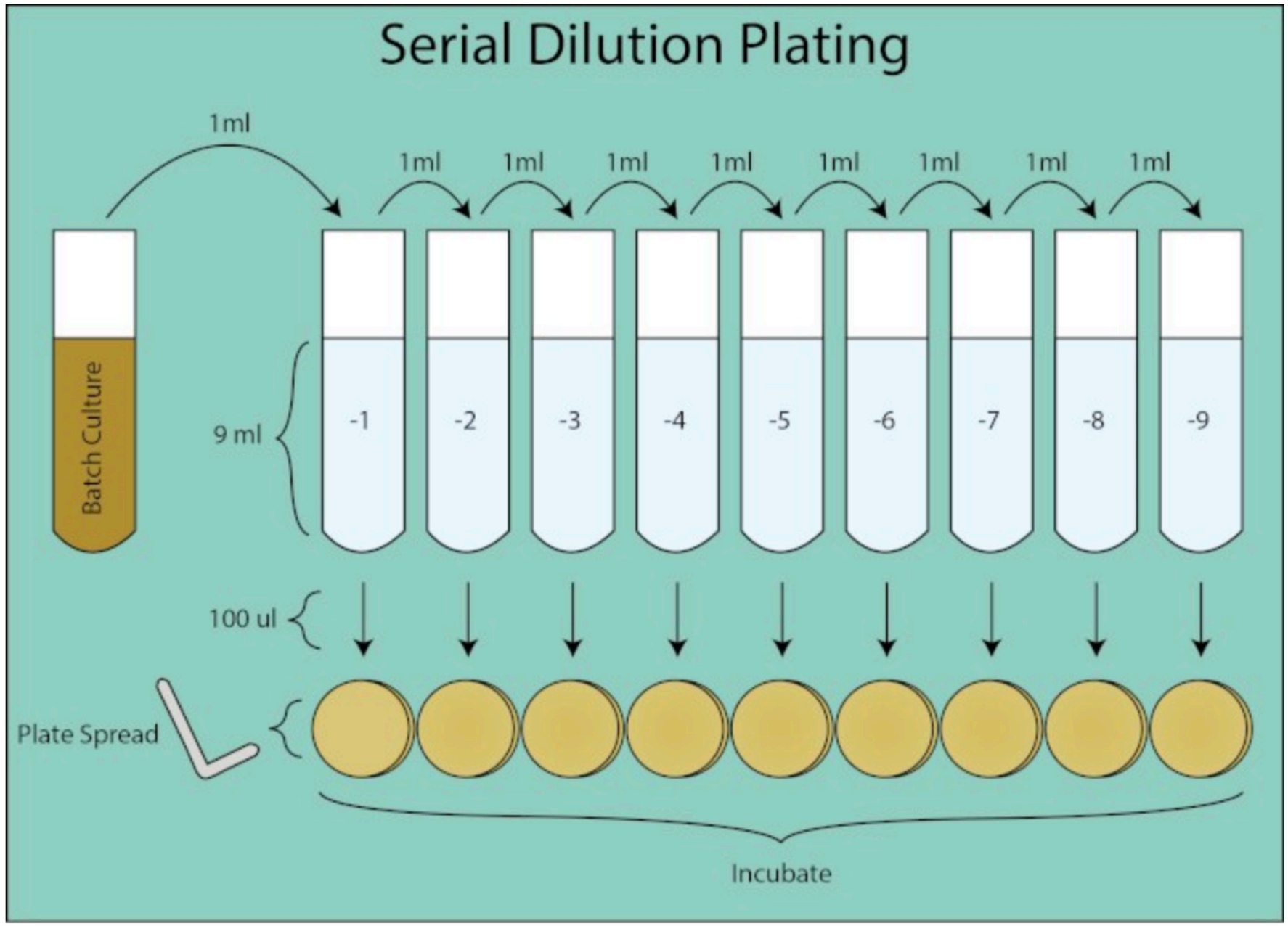
Lab Safety

- **Emergency exit**
- **No food**
- **No drinks**
- **Appropriate code of conduct**
- **No telephone, checking messages or smart phone calls or video, you can go outside**
- **Wear Lab coat with name tag**
- **Wear goggles**
- **No open shoes and sandals**
- **No shorts, skirts**
- **No long pendents (earrings and neckless)**
- **No bracelets**
- **Tie your hair**
- **Write your name on the foolscap (one per group)**
- **Take a break when you need it, inform your lab mates**

Vocabulary

Scale
Spatula
Petri dish
Tubes, 50 mL
Vials, 1 mL
L-spreaders
Micropipettes
Tips
Waste
Serological pipette
Pipettor
Saline solution
LB medium
Bunsen burner
Alu-foil
Ethanol
Parafilm

Serial dilution



Experiment 1

- **Collect with the spatula some soil (no rocks or grass)**
- **Describe the sampling location on foolscap and annotate all the numbers and computation you make**
- **Weight sample from 0.5 to 1 g**
- **Add the sample into 10 mL saline solution**
- **Shake gently to make slurry**
- **Prepare an appropriate number of tubes with 9 mL saline solution**
- **Pipette 1 mL of sediment slurry into 9 mL of saline solution (use cut-out tip)**
- **Inverte gently the tube**
- **Continue to dilute until it is necessary…**
- **Plate 100 µL of the solution on to a LB plate**

Goal

- **Assessing number of cultivable microbes via CFU (colony forming unit) plating method**
- **Assumption: 1 g of sediment has 1 billion microbes**
- **Colonies on the plates need to be countable —> how much to dilute?**
- **Importance of replicate**
- **Take pictures of the plates at home for 1 week and make a slide that you will add to the group presentation**
- **Count the colonies over time and compute CFU/mL (number of colonies x dilution x plated microliters)**