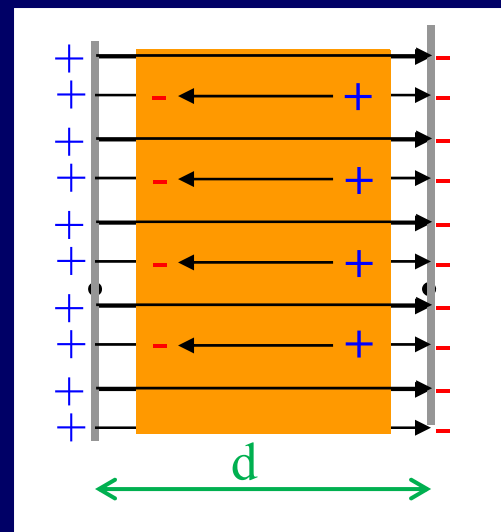


# Dielectric

- Placing a dielectric between the plates increases the capacitance.



Dielectric  
constant ( $\kappa > 1$ )

$$C = \kappa C_0$$

Capacitance  
**without** dielectric

Capacitance **with**  
dielectric

For same charge  $Q$ ,  $E$  (and  $V$ ) is reduced  
so  $C = Q/V$  increases