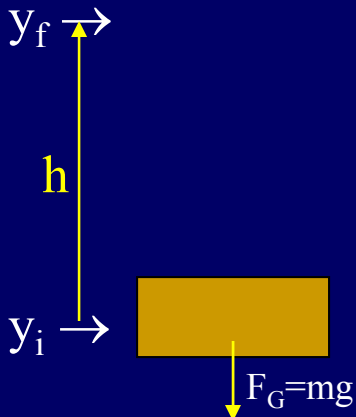


# Work and $\Delta$ Potential Energy

$$W = F d \cos(\theta)$$

## Gravity

- Brick raised  $y_i \rightarrow y_f$ 
  - $F_G = mg$  (down)
  - $W_G = -mgh$
  - $\Delta U_G = +mgh$



## Electric

- Charge moved  $x_i \rightarrow x_f$ 
  - $F_E = qE$  (left)
  - $W_E = -qEd$
  - $\Delta U_E = +qEd$

