

## Review of Waves

Period  $\rightarrow T = \frac{\text{time}}{\text{cycles}}$  (time for 1 cycle) (s)

frequency  $\rightarrow f = \frac{\text{cycles}}{\text{time}}$  (cycles per second) ( $s^{-1}$  or Hz)

reciprocals:  $\rightarrow f = \frac{1}{T}$  or  $T = \frac{1}{f}$

Wave Speed:  $v = \lambda f$  or  $v = \frac{\Delta d}{\Delta t}$

Waves at a boundary (frequency stays the same  $\rightarrow$  speed + the wavelength change)

$\left\{ \begin{array}{l} \text{less dense} \xrightarrow{\text{fast}} \text{more dense} \xrightarrow{\text{slow}} \\ \text{reflected wave is inverted.} \end{array} \right.$

$\left\{ \begin{array}{l} \text{more dense} \rightarrow \text{less dense} \\ \text{reflected wave is not inverted (erect)} \end{array} \right.$

## Interference of Waves

- constructive + destructive interference
- standing waves.

