

## **Overall Expectations:**

**WSV.02** investigate, in qualitative and quantitative terms, the properties of mechanical waves and sound, and solve related problems;

**WSV.03** demonstrate an understanding of the properties of mechanical waves and sound and of the principles underlying their production, transmission, interaction, and reception.

## **Specific Expectations:**

**WS2.03** plan and conduct inquiries to determine the speed of waves in a medium (e.g., a vibrating air column, an oscillating string of a musical instrument), compare theoretical and empirical values, and account for discrepancies [IP, PR, AI, C];

**WS3.05** explain the relationship between the speed of sound in various media and the particle nature of the media (e.g., the speed of sound in solids, liquids, and gases; the speed of sound in warm and cold air);

**WS3.06** explain selected natural phenomena (e.g., with reference to echo location, or organisms that produce or receive infrasonic, audible, or ultrasonic sound) with reference to the characteristics and properties of waves.