9) Bottle Tone

Reporter: Belarus
Opponent: Switzerland
Problem

9. Bottle tone
Take an empty bottle and blow air across its mouth to produce a sound. Now fill the bottle with some water and study how the sound changes.
Outline of Report

- Phenomenon
- Theory: Standing waves
- Helmholtz Resonance
- Conclusion
- Comparison
- Experiments

- Good
- Ok
- Needs Improvement
Strengths and Weaknesses

**Strengths**
- Angle looked at
- Clearly said what she neglected
- Used fan to blow into tube
- Explained initial observations

**Weaknesses**
- Standing wave
- Edge case explanation
- Assumed bottles were perfectly cylindrical
Discussion