**1.1 STUDY OUTLINE**

1. **What Science Is and Is Not**
2. Science as a Way of Knowing
3. The Goals of Science
4. Science, Change, and Uncertainty
5. **Scientific Methodology: The Heart of Science**
6. Observing and Asking Questions
7. Conducting Research
8. Forming a Hypothesis
9. Designing an Experiment
10. Collecting and Analyzing Data
11. Drawing a Conclusion
12. **Designing Controlled Experiments**
13. Experimental and Control Groups
14. Variables