Unit 1: Scientific Foundations of Psychology

Content Area: **Social Studies**
Course(s): **AP Psychology**
Time Period: **September**
Length: **10 Blocks**
Status: **Published**

History, Perspectives, and Research Methods

Students will learn the basis of psychological theory as the study of human and animal behavior and mental processes and learn how psychologists design and conduct research.

Enduring Understandings

- Psychology is empirical.
- Ethics are important in both scientific research and the practice of psychology.
- Psychology is theoretically diverse.
- Case studies, surveys, naturalistic observation, and experimentation are methods psychologists use to study behavior.
- Psychology requires understanding how to design, interrupt, and apply a variety of ethical research methods.

Essential Questions

1. What ways does psychology approach the study of human and animal behavior?
2. How has psychology changed the study of human and animal behavior?
3. How do the different perspectives in psychology compare and contrast?
4. Who were the pioneers in the evolution of psychology as a science?
5. How do psychologists use the scientific method to study behavior and mental processes?
6. Which methods of research are appropriate for the study of different behaviors?
7. How do psychologists draw appropriate conclusions about behavior from research?
8. How do psychologists make ethical decisions about researching behavior with human and animal subjects?

Content

Topics will include:

- Major historical figures in psychology
- Theoretical approaches to describing behavior
- Branches of psychology
- A variety of research methods used by psychologists

- The application of research design and statistical analysis in psychology
- Ethical guidelines

Vocabulary

Psychodynamic perspective, behavioral perspective, humanistic perspective, physiological perspective, cognitive perspective, psychology, hypothesis, theory, basic science, applied science, scientific method, introspection, psychoanalyst, behaviorist, humanist, psychologist, clinical psychologist, counseling psychologist, psychiatry, developmental psychologist, educational psychologist, industrial/organizational, psychologist, experimental structuralism, functionalism, survey, case study, naturalistic observation, correlation, experiments, sample, population, random sample, random assignment, dependent variable, independent variable, control group, experimental group, placebo effect, single-blind study, double-blind study

Important People

Wilhelm Wundt, William James, Sigmund Freud, John B. Watson, B.F. Skinner, Abraham Maslow, Carl Rogers, Jean Piaget, Edward Titchener, Max Wertheimer, Carl Rogers

Learning Objectives

1. Compare the relationship between psychological theories and scientific research
2. Categorize basic elements of an experiment
3. Explore the careers in the field of psychology
4. Evaluate trends in psychology past and present
5. Assess early psychologists' effort to understand the structures of the mind
6. Compare the different perspectives from which psychologists examine behavior and mental processes
7. Appraise the relationship between psychological theories and scientific research

Student Expectations

I. History and Approaches

AP students in psychology will be able to:

- Recognize how philosophical perspectives shaped the development of psychological thought
- Describe and compare different theoretical approaches in explaining behavior: — structuralism, functionalism, and behaviorism in the early years; — Gestalt, psychoanalytic/psychodynamic, and humanism emerging later; — evolutionary, biological, and cognitive as more contemporary

approaches.

- Recognize the strengths and limitations of applying theories to explain behavior
- Distinguish the different domains of psychology: — biological, clinical, cognitive, counseling, developmental, educational, experimental, human factors, industrial–organizational, personality, psychometric, and social.
- Identify the major historical figures in psychology (e.g., Mary Whiton Calkins, Charles Darwin, Dorothea Dix, Sigmund Freud, G. Stanley Hall, William James, Ivan Pavlov, Jean Piaget, Carl Rogers, B. F. Skinner, Margaret Floy Washburn, John B. Watson, Wilhelm Wundt).

II. Research Methods

AP students in psychology will be able to:

- Differentiate types of research (e.g., experiments, correlational studies, survey research, naturalistic observations, longitudinal studies, cross-sectional studies, and case studies) with regard to purpose, strengths, and weaknesses.
- Describe how research design drives the reasonable conclusions that can be drawn (e.g., experiments are useful for determining cause and effect; the use of experimental controls reduces alternative explanations).
- Identify independent, dependent, confounding, and control variables in experimental designs.
- Distinguish between random assignment of participants to conditions in experiments and random selection of participants, primarily in correlational studies and surveys.
- Predict the validity of behavioral explanations based on the quality of research design (e.g., confounding variables limit confidence in research conclusions).
- Distinguish the purposes of descriptive statistics and inferential statistics.
- Apply basic descriptive statistical concepts, including interpreting and constructing graphs and calculating simple descriptive statistics (e.g., measures of central tendency, standard deviation).
- Discuss the value of reliance on operational definitions and measurement in behavioral research.
- Identify how ethical issues inform and constrain research practices.
- Describe how ethical and legal guidelines (e.g., those provided by the American Psychological Association, federal regulations, local institutional review boards) protect research participants and promote sound ethical practice.

Standards

LA.RI.9-10.2	Determine a central idea of a text and analyze how it is developed and refined by specific details; provide an objective summary of the text.
LA.RI.9-10.8	Describe and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and reasoning.
LA.W.9-10.9	Draw evidence from literary or nonfiction informational texts to support analysis, reflection, and research.
LA.W.9-10.9.B	Apply grades 9–10 Reading standards to nonfiction informational (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning").
SCI.9-12.SI	Scientific Inquiry
SCI.9-12.SI.1	Perspectives in Psychological Science
SCI.9-12.SI.1.1	Development of psychology as an empirical science
SCI.9-12.SI.1.1.1	Define psychology as a discipline and identify its goals as a science
SCI.9-12.SI.1.1.2	Describe the emergence of psychology as a scientific discipline
SCI.9-12.SI.1.1.3	Describe perspectives employed to understand behavior and mental processes
SCI.9-12.SI.1.1.4	Explain how psychology evolved as a scientific discipline
SCI.9-12.SI.1.2	Major subfields within psychology
SCI.9-12.SI.1.2.1	Discuss the value of both basic and applied psychological research with human and non-human animals
SCI.9-12.SI.1.2.2	Describe the major subfields of psychology
SCI.9-12.SI.1.2.3	Identify the important role psychology plays in benefiting society and improving people's lives
SCI.9-12.SI.2	Research Methods, Measurement, and Statistics
SCI.9-12.SI.2.1	Research methods and measurements used to study behavior and mental processes
SCI.9-12.SI.2.1.1	Describe the scientific method and its role in psychology
SCI.9-12.SI.2.1.2	Describe and compare a variety of quantitative (e.g., surveys, correlations, experiments) and qualitative (e.g., interviews, narratives, focus groups) research methods
SCI.9-12.SI.2.1.3	Define systematic procedures used to improve the validity of research findings, such as external validity
SCI.9-12.SI.2.1.4	Discuss how and why psychologists use non-human animals in research
SCI.9-12.SI.2.2	Ethical issues in research with human and non-human animals
SCI.9-12.SI.2.2.1	Identify ethical standards psychologists must address regarding research with human participants
SCI.9-12.SI.2.2.2	Identify ethical guidelines psychologists must address regarding research with non-human animals
SCI.9-12.SI.2.3	Basic concepts of data analysis
SCI.9-12.SI.2.3.1	Define descriptive statistics and explain how they are used by psychological scientists
SCI.9-12.SI.2.3.2	Define forms of qualitative data and explain how they are used by psychological scientists
SCI.9-12.SI.2.3.3	Define correlation coefficients and explain their appropriate interpretation
SCI.9-12.SI.2.3.4	Interpret graphical representations of data as used in both quantitative and qualitative methods
SCI.9-12.SI.2.3.5	Explain other statistical concepts, such as statistical significance and effect size

SCI.9-12.SI.2.3.6	Explain how validity and reliability of observations and measurements relate to data analysis
SCI.9-12.APS.3	Vocational Applications
SCI.9-12.APS.3.1	Career options
SCI.9-12.APS.3.1.1	Identify careers in psychological science and practice
SCI.9-12.APS.3.1.2	Identify careers related to psychology
SCI.9-12.APS.3.2	Educational requirements
SCI.9-12.APS.3.2.1	Identify degree requirements for psychologists and psychology-related careers
SCI.9-12.APS.3.2.2	Identify resources to help select psychology programs for further study
SCI.9-12.APS.3.3	Vocational applications of psychological science
SCI.9-12.APS.3.3.1	Discuss ways in which psychological science addresses domestic and global issues
SCI.9-12.APS.3.3.2	Identify careers in psychological science that have evolved as a result of domestic and global issues