UNIT 4
Learning

AP EXAM WEIGHTING
7–9%

CLASS PERIODS
9–10
Remember to go to AP Classroom to assign students the online Personal Progress Check for this unit.

Whether assigned as homework or completed in class, the Personal Progress Check provides each student with immediate feedback related to this unit’s topics and skills.

**Personal Progress Check 4**

**Multiple-choice:** ~10 questions

**Free-response:** 1 question

- Research Design
UNIT 4

7–9% AP EXAM WEIGHTING

~9–10 CLASS PERIODS

Learning

Developing Understanding

Some psychologists focus their study on how humans and other animals learn and how some experiences can lead to changes in behavior and mental processes. Because the process of learning requires both physiological and psychological processes to work together, the two preceding units provide the foundation for this unit. Many psychologists who study learning focus on observable behaviors and how those behaviors can be changed or reinforced. Other learning psychologists study how the individual’s observations of other peoples’ behaviors influence changes in that individual’s mental processes and resulting behaviors.

Building Course Skills

This unit integrates knowledge about physiological processes and psychological concepts from Units 2 and 3 within the context of learning processes. Major learning theories are introduced, as well as the experiments that were conducted to refine these theories. This increased understanding of research methods and design, first introduced in Unit 1, will reinforce the importance of valid and reliable research methods. This is a great place in the course to introduce case studies as a research method. This unit also gives students the opportunity to move from an understanding of the major theories to the research that was conducted to refine them and then to the data analysis involved in explaining the psychological phenomena.

Preparing for the AP Exam

Classical and operant conditioning are learning methods that help explain behavior and mental processes. While these theories share many common attributes and involve similar processes, they are different, and they explain behavior and mental processes differently. Teachers can model these theories with examples that are accessible and interesting to help students recognize the differences and better understand how each theory explains behavior and mental processes. On the AP Exam, students often confuse classical and operant conditioning and describe the incorrect one. Students should be able to describe the principles of classical and/or operant conditioning and explain how they function to alter behavior and mental processes.
# UNIT AT A GLANCE

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<td>4.1 Introduction to Learning</td>
<td>1.B Explain behavior in authentic context.</td>
<td>~9–10 CLASS PERIODS</td>
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<td>4.2 Classical Conditioning</td>
<td>1.B Explain behavior in authentic context.</td>
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<tr>
<td>4.3 Operant Conditioning</td>
<td>1.B Explain behavior in authentic context.</td>
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Go to AP Classroom to assign the Personal Progress Check for Unit 4. Review the results in class to identify and address any student misunderstandings.
SAMPLE INSTRUCTIONAL ACTIVITIES

The sample activities on this page are optional and are offered to provide possible ways to incorporate various instructional approaches into the classroom. Teachers do not need to use these activities or instructional approaches and are free to alter or edit them. The examples below were developed in partnership with teachers from the AP community to share ways that they approach teaching some of the topics in this unit. Please refer to the Instructional Approaches section beginning on p. 151 for more examples of activities and strategies.

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<th>Activity</th>
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| 1        | 4.1   | **Misconception Check**  
Provide students with a list of behaviors and ask them to write down which behaviors are examples of learning. Provide a mini-lecture on learning, including the definition and the different types of learning. At the end of the lesson, read the list of behaviors again and ask students to identify which behaviors are examples of learning. Compare answers from the beginning of class and clarify misconceptions. |
| 2        | 4.2   | **Ask the Expert (or Students as Experts)**  
Have students create their own (appropriate) skit to demonstrate their understanding of classical conditioning. Required elements include neutral stimulus, unconditioned stimulus, unconditioned response, conditioned stimulus, and conditioned response. Students can perform their skits live in class or record them and upload them to YouTube. |
| 3        | 4.3   | **Construct an Argument**  
Provide students with a list of scenarios that include examples of classical and operant conditioning. Have students identify the type of learning (classical or operant). If it is classical, have them identify the UCS, UCR, NS, CS, and CR. If it is operant, have them determine if the scenario is punishment or reinforcement (positive or negative). |
| 4        | 4.4   | **Index Card Summaries/Questions**  
Bonobos, closely related to humans, exhibit the capacity to share with members of their troop. Have students read articles with research findings on bonobos. Then have them develop research questions that could be asked based on findings in the articles. These questions should be relevant to the field of social and cognitive development and related to learning. |

Unit Planning Notes

*Use the space below to plan your approach to the unit.*
TOPIC 4.1
Introduction to Learning

LEARNING TARGET

4.A Identify the contributions of key researchers in the psychology of learning.

EXAMPLES

4.A.1 Contributions of Albert Bandura, key researcher to the psychology of learning

4.A.2 Contributions of Ivan Pavlov, key researcher in the psychology of learning

4.A.3 Contributions of Robert Rescorla, key researcher in the psychology of learning

4.A.4 Contributions of B. F. Skinner, key researcher in the psychology of learning

4.A.5 Contributions of Edward Thorndike, key researcher in the psychology of learning

4.A.6 Contributions of Edward Tolman, key researcher in the psychology of learning

4.A.7 Contributions of John B. Watson, key researcher in the psychology of learning

4.A.8 Contributions of John Garcia, key researcher in the psychology of learning

4.B Interpret graphs that exhibit the results of learning experiments.

continued on next page
LEARNING TARGET

4.C Describe the essential characteristics of insight learning, latent learning, and social learning.

4.D Apply learning principles to explain emotional learning, taste aversion, superstitious behavior, and learned helplessness.

4.E Provide examples of how biological constraints create learning predispositions.

Topic Planning Notes

Use the space below to plan your approach to the topic.
TOPIC 4.2
Classical Conditioning

LEARNING TARGET
4.F
Describe basic classical conditioning phenomena.

EXAMPLES
4.F.1
Acquisition
4.F.2
Extinction
4.F.3
Spontaneous recovery
4.F.4
Generalization
4.F.5
Stimulus discrimination
4.F.6
Higher-order learning
4.F.7
Unconditioned stimulus
4.F.8
Unconditioned response
4.F.9
Neutral/conditioned stimulus
4.F.10
Conditioned response

4.G
Distinguish general differences between principles of classical conditioning, operant conditioning, and observational learning.

4.G.1
Contingencies
TOPIC 4.3
Operant Conditioning

LEARNING TARGET

4.H
Predict the effects of operant conditioning.

EXAMPLES

4.H.1
Positive reinforcement

4.H.2
Negative reinforcement

4.H.3
Positive punishment

4.H.4
Negative punishment

4.I
Predict how practice, schedules of reinforcement, other aspects of reinforcement, and motivation will influence quality of learning.

Topic Planning Notes

Use the space below to plan your approach to the topic.
TOPIC 4.4
Social and Cognitive Factors in Learning

LEARNING TARGET
4.J
Suggest how behavior modification, biofeedback, coping strategies, and self-control can be used to address behavioral problems.

Topic Planning Notes
Use the space below to plan your approach to the topic.