Unit 02: Learning and Memory

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Standards Alignment

New Jersey Student Learning Standards

Practice 1. Asking questions (for science) and defining problems (for engineering)
Asking questions and defining problems in 6–8 builds on K–5 experiences and progresses to specifying relationships between variables, and clarifying arguments and models.

Ask questions that arise from careful observation of phenomena, models, or unexpected results, to clarify and/or seek additional information.

Ask questions to identify and/or clarify evidence and/or the premise(s) of an argument.

Ask questions to determine relationships between independent and dependent variables and relationships in models.

Ask questions to clarify and/or refine a model, an explanation, or an engineering problem.

Ask questions that require sufficient and appropriate empirical evidence to answer.

Ask questions that can be investigated within the scope of the classroom, outdoor environment, and museums and other public facilities with available resources and, when appropriate, frame a hypothesis based on observations and scientific principles.

Ask questions that challenge the premise(s) of an argument or the interpretation of a data set.

Define a design problem that can be solved through the development of an object, tool, process or system and includes multiple criteria and constraints, including scientific knowledge that may limit possible solutions.

Practice 2. Developing and using models
Modeling in 6–8 builds on K–5 experiences and progresses to developing, using, and revising models to describe, test, and predict more abstract phenomena and design systems.

Develop and/or revise a model to show the relationships among variables, including those that are not observable but predict observable phenomena.

Develop and/or use a model to predict and/or describe phenomena.

Practice 3. Planning and carrying out investigations
Planning and carrying out investigations in 6-8 builds on K-5 experiences and progresses to include investigations that use multiple variables and provide evidence to support explanations or solutions.

Plan an investigation individually and collaboratively, and in the design: identify independent and dependent variables and controls, what tools are needed to do the gathering, how measurements will be recorded, and how many data are needed to support a claim.

Conduct an investigation and/or evaluate and/or revise the experimental design to produce data to serve as the basis for evidence that meet the goals of the investigation.

Evaluate the accuracy of various methods for collecting data.

Collect data to produce data to serve as the basis for evidence to answer scientific questions or test design solutions

under a range of conditions.

Collect data about the performance of a proposed object, tool, process or system under a range of conditions.

Practice 4. Analyzing and interpreting data
Analyzing data in 6–8 builds on K–5 experiences and progresses to extending quantitative analysis to investigations, distinguishing between correlation and causation, and basic statistical techniques of data and error analysis.

Construct, analyze, and/or interpret graphical displays of data and/or large data sets to identify linear and nonlinear relationships.

Use graphical displays (e.g., maps, charts, graphs, and/or tables) of large data sets to identify temporal and spatial relationships.

Distinguish between causal and correlational relationships in data.

Analyze and interpret data to provide evidence for phenomena.

Apply concepts of statistics and probability (including mean, median, mode, and variability) to analyze and characterize data, using digital tools when feasible.

Consider limitations of data analysis (e.g., measurement error), and/or seek to improve precision and accuracy of data with better technological tools and methods (e.g., multiple trials).

Analyze and interpret data to determine similarities and differences in findings.

Practice 5. Using mathematics and computational thinking
Mathematical and computational thinking in 6–8 builds on K–5 experiences and progresses to identifying patterns in large data sets and using mathematical concepts to support explanations and arguments.

Use mathematical representations to describe and/or support scientific conclusions and design solutions.

Practice 6. Constructing explanations (for science) and designing solutions (for engineering)
Constructing explanations and designing solutions in 6–8 builds on K–5 experiences and progresses to include constructing explanations and designing solutions supported by multiple sources of evidence consistent with scientific ideas, principles, and theories.

Construct an explanation that includes qualitative or quantitative relationships between variables that predict(s) and/or describe(s) phenomena.

Construct an explanation using models or representations.

Construct a scientific explanation based on valid and reliable evidence obtained from sources (including the students' own experiments) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future.

Apply scientific ideas, principles, and/or evidence to construct, revise and/or use an explanation for real-world phenomena, examples, or events.

Apply scientific reasoning to show why the data or evidence is adequate for the explanation or conclusion.

Apply scientific ideas or principles to design, construct, and/or test a design of an object, tool, process or system.

Undertake a design project, engaging in the design cycle, to construct and/or implement a solution that meets specific design criteria and constraints.

Optimize performance of a design by prioritizing criteria, making tradeoffs, testing, revising, and re-testing.

Practice 8. Obtaining, evaluating, and communicating information
Obtaining, evaluating, and communicating information in 6–8 builds on K–5 experiences and progresses to evaluating the merit and validity of ideas and methods.

Critically read scientific texts adapted for classroom use to determine the central ideas and/or obtain scientific and/or

technical information to describe patterns in and/or evidence about the natural and designed world(s).

Integrate qualitative and/or quantitative scientific and/or technical information in written text with that contained in media and visual displays to clarify claims and findings.

Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence.

Evaluate data, hypotheses, and/or conclusions in scientific and technical texts in light of competing information or accounts.

Communicate scientific and/or technical information (e.g. about a proposed object, tool, process, system) in writing and/or through oral presentations.

Connections to the Nature of Science: Most Closely Associated with Practices
Scientific Investigations Use a Variety of Methods

Science investigations use a variety of methods and tools to make measurements and observations.

Science investigations are guided by a set of values to ensure accuracy of measurements, observations, and objectivity of findings.

Scientific Knowledge is Based on Empirical Evidence

Science knowledge is based upon logical and conceptual connections between evidence and explanations.

Science disciplines share common rules of obtaining and evaluating empirical evidence.

Scientific Knowledge is Open to Revision in Light of New Evidence

Scientific explanations are subject to revision and improvement in light of new evidence.

The certainty and durability of science findings varies.

Science findings are frequently revised and/or reinterpreted based on new evidence.

Science Models, Laws, Mechanisms, and Theories Explain Natural Phenomena

Theories are explanations for observable phenomena.

Science theories are based on a body of evidence developed over time.

Laws are regularities or mathematical descriptions of natural phenomena.

A hypothesis is used by scientists as an idea that may contribute important new knowledge for the evaluation of a scientific theory.

The term "theory" as used in science is very different from the common use outside of science.

Crosscutting Statements
1. Patterns – Observed patterns in nature guide organization and classification and prompt questions about relationships and causes underlying them.

Patterns in rates of change and other numerical relationships can provide information about natural and human designed systems.

Patterns can be used to identify cause and effect relationships.

Graphs, charts, and images can be used to identify patterns in data.

2. Cause and Effect: Mechanism and Prediction – Events have causes, sometimes simple, sometimes multifaceted. Deciphering causal relationships, and the mechanisms by which they are mediated, is a major

activity of science and engineering.

Relationships can be classified as causal or correlational, and correlation does not necessarily imply causation.

Cause and effect relationships may be used to predict phenomena in natural or designed systems.

Phenomena may have more than one cause, and some cause and effect relationships in systems can only be described using probability.

3. Scale, Proportion, and Quantity – In considering phenomena, it is critical to recognize what is relevant at different size, time, and energy scales, and to recognize proportional relationships between different quantities as scales change.

Phenomena that can be observed at one scale may not be observable at another scale.

Connections to the Nature of Science: Most Closely Associated with Crosscutting Concepts
Science is a Way of Knowing

Science is both a body of knowledge and the processes and practices used to add to that body of knowledge.

Science knowledge is cumulative and many people, from many generations and nations, have contributed to science knowledge.

Science is a way of knowing used by many people, not just scientists.

Scientific Knowledge Assumes an Order and Consistency in Natural Systems

Science assumes that objects and events in natural systems occur in consistent patterns that are understandable through measurement and observation.

Science carefully considers and evaluates anomalies in data and evidence.

Science Addresses Questions About the Natural and Material World.

Scientific knowledge is constrained by human capacity, technology, and materials.

Science limits its explanations to systems that lend themselves to observation and empirical evidence.

Science knowledge can describe consequences of actions but is not responsible for society's decisions.

Unit 2 Psychology Standards

Integration of Career Readiness, Life Literacies and Key Skills

CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP3	Attend to personal health and financial well-being.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.

CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.
CRP.K-12.CRP10	Plan education and career paths aligned to personal goals.
CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.

Technology / Integration of Computer Science and Design Thinking

TECH.8.1.8	Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
TECH.8.1.8.A	Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.
TECH.8.1.8.A.1	Demonstrate knowledge of a real world problem using digital tools.
TECH.8.1.8.A.3	Use and/or develop a simulation that provides an environment to solve a real world problem or theory.
TECH.8.1.8.A.4	Graph and calculate data within a spreadsheet and present a summary of the results.
TECH.8.1.8.A.5	Create a database query, sort and create a report and describe the process, and explain the report results.
TECH.8.1.8.D	Digital Citizenship: Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
TECH.8.1.8.D.1	Understand and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media.
TECH.8.1.8.D.2	Demonstrate the application of appropriate citations to digital content.
TECH.8.1.8.D.3	Demonstrate an understanding of fair use and Creative Commons to intellectual property.
TECH.8.1.8.D.4	Assess the credibility and accuracy of digital content.
TECH.8.1.8.D.5	Understand appropriate uses for social media and the negative consequences of misuse.
TECH.8.1.8.E	Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.
TECH.8.1.8.E.1	Effectively use a variety of search tools and filters in professional public databases to find information to solve a real world problem.

Interdisciplinary Connections: NJSLS for ELA, Social Studies, Science and/or Math Section

LA.K-12.NJSLSA.R2	Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
LA.K-12.NJSLSA.R3	Analyze how and why individuals, events, and ideas develop and interact over the course of a text.
LA.K-12.NJSLSA.R8	Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
LA.K-12.NJSLSA.R9	Analyze and reflect on how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.
LA.RI.8.2	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.

LA.K-12.NJSLSA.W	Writing
	Text Types and Purposes
LA.RI.8.3	Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories).
LA.K-12.NJSLSA.W1	Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
LA.K-12.NJSLSA.W2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
LA.RI.8.8	Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.
LA.RI.8.9	Analyze and reflect on (e.g., practical knowledge, historical/cultural context, and background knowledge) two or more texts that provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation.
	Research to Build and Present Knowledge
LA.K-12.NJSLSA.W7	Conduct short as well as more sustained research projects, utilizing an inquiry-based research process, based on focused questions, demonstrating understanding of the subject under investigation.
LA.K-12.NJSLSA.W8	Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
LA.K-12.NJSLSA.W9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
	Range of Writing
LA.K-12.NJSLSA.W10	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.
LA.W.8.1	Write arguments to support claims with clear reasons and relevant evidence.
LA.W.8.1.A	Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
LA.W.8.1.B	Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
LA.K-12.NJSLSA.SL	Speaking and Listening
LA.W.8.1.C	Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
LA.W.8.1.D	Establish and maintain a formal style.
	Comprehension and Collaboration
LA.K-12.NJSLSA.SL1	Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
LA.W.8.1.E	Provide a concluding statement or section that follows from and supports the argument presented.
LA.W.8.2	Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
LA.K-12.NJSLSA.SL2	Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
LA.W.8.2.A	Introduce a topic and organize ideas, concepts, and information, using text structures

	(e.g., definition, classification, comparison/contrast, cause/effect, etc.) and text features (e.g., headings, graphics, and multimedia).
LA.K-12.NJSLSA.SL3	Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.
	Presentation of Knowledge and Ideas
LA.W.8.2.B	Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
LA.K-12.NJSLSA.SL4	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
LA.W.8.2.C	Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
LA.W.8.2.D	Use precise language and domain-specific vocabulary to inform about or explain the topic.
LA.K-12.NJSLSA.SL5	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
LA.W.8.2.E	Establish and maintain a formal style/academic style, approach, and form.
LA.W.8.2.F	Provide a concluding statement or section that follows from and supports the information or explanation presented.
LA.W.8.7	Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.
LA.W.8.8	Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
LA.W.8.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.
LA.W.8.9.B	Apply grade 8 Reading standards to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced").
LA.W.8.10	Write routinely over extended time frames (time for research, reflection, metacognition/self correction, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.
LA.SL.8.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.
LA.SL.8.1.A	Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
LA.SL.8.1.B	Follow rules for collegial discussions and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.
LA.SL.8.1.C	Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.
LA.SL.8.1.D	Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.
LA.SL.8.2	Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.
LA.SL.8.3	Delineate a speaker's argument and specific claims, evaluating the soundness of the

	reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.
LA.SL.8.4	Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.
LA.SL.8.5	Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.

Integration of Diversity, Equity and Inclusion; Climate Change; Informational and Media LiteracyNew Section

see Crosswalks

21st Century Life and Careers

Stage I: Desired Results

Transfer/Overview/Rationale

Transfer / Overview / Rationale

Unit Rationale

The purpose of this unit…

It is important to understand that psychology is a science where several theories and phenomena are based on the biology of the brain. By learning the biology and other factors that influence a person's thinking and behavior, students will be able to better understand themselves---how they learn, how they perceive, and how they remember information.

Meaning

Essential Questions

Essential Questions

- **In what ways does the neuroscience of your brain and your environment affect your thinking and behavior?**
- **What factors affect short and long term memory and how can we improve our memory?**
- **What are the different types of conditioning and how can they influence a person's thoughts and behavior?**
- **What are the processes of sensing and perception and how to they affect how we understand the world?**

Enduring Understanding/Indicators of Understanding

Enduring Understanding/Indicators of Understanding

Students will understand that:

- **The biology of the brain and environmental stimuli are both strong factors in thinking and behavior.**
- **There are several factors that contribute to both short and long term memory including strategies to improve memory.**
- **Human and animal learning and behavior can be influenced by different types of conditioning.**
- **The processes of sensing and perception interact but play two very different roles in how we understand our world.**

Acquisition (Student Learning Objectives)

Knowledge

Knowledge

Students will know…

- **Types of learning and learners**
- **Classical and Operant conditioning**
    - **Pavlov's Dogs**
    - **Skinner**
    - **Thorndike**
    - **law of effect**
    - **operant chamber (Skinner box)**
    - **reinforcement**
    - **shaping**
    - **positive reinforcement**

    - **negative reinforcement**
    - **learned helplessness**
    - **external locus of control**
    - **internal locus of control**
    - **self-control**
- **Cognitive learning**
    - **observational learning**
    - **Bandura**
    - **Bobo doll study**
    - **associative learning**
- **Biological Psychology**
    - **Nervous system and neurotransmitters**
    - **Endocrine system**
    - **Peripheral nervous system (PNS)**
    - **Brain structures**
    - **Limbic system**
    - **Cerebral Cortex**
- **Gestalt psychology**
- **Memory**
    - **Memory models**
- **Memory-forming process**
- **explicit memories (declarative memories)**
    -
        - **effortful processing**
        - **automatic processing**
        - **implicit memories (nondeclarative memories)associations**
        - **Mnemonics**
- **Explicit-memory system and implicit-memory system**
- **Forgetting**
- **Improving memory**

Skills

Skills

Student will be skilled at …

- **Describe classical and operant conditioning including experiments by Pavlov and Skinner.**
- **Identify the compare the types of reinforcement.**
- **Describing the process of observational learning (Bandura's experiments).**
- **Classify different parts of the nervous system and their effect on learning and behavior.**
- **Describe the functions of the brain structures.**
- **Discuss Gestalt psychology's contribution to our understanding of perception.**
- **Discuss long and short term memory and explain the encoding processes for each.**
- **Compare and contrast explicit and implicit memory.**

Stage 3: Learning Plan

Resource and Mentor Texts

Resources and Mentor Texts

- https://ocw.mit.edu/ans7870/9/9.00SC/MIT9_00SCF11_text.pdf
- http://www.blackwellpublishing.com/intropsych/students/Chapter1.htm
- https://allpsych.com/psychology101/
- http://www.apa.org/education/k12/national-standards.aspx
- Collin, C., Benson, N., Ginsburg, J., Grand, V., Lazyan, M., & Weeks, M. (2012). *The Psychology Book, Big Ideas Simply Explained.* New York: Dorling Kindersley Limited.
- Kleinman, P. (2012). *Psych 101, A Crash Course in the Science of the Mind*. Littlefield:

  Simon & Schuster Inc.

- Hemmings, J. (2018). *How Psychology Works.* New York: Penguin Random House.
- Kalat, J. (2008). *Introduction to Psychology, 9th Edition.* Belmont: Cengage Learning.

Formative Assessment Strategies

Formative Assessment Strategies

- **Observation/Discussion/Informal Questioning**
- **Virtual and hands-on labs/experiments**
- **Interactive notebook activities**
- **Do Now checks**

Learning Activities/Unit of Study

Learning Activities/Unit of Study

- **Do Nows: Research the given psychologist and discuss his/her importance in the field of psychology.**
- **Collaborative Webquests**
- **Small group discussion**
- **Whole class discussion**
- **Recreating experiments in the classroom**
- **Designing experiments to test psychological theory**
- **Instructional articles or videos that lead to group discussion.**
- **Quizziz, kahoot, and breakouts**
- **Essays comparing and contrasting psychological theories.**
- **Create an experiment and analyze data.**

Modifications and/or Accommodations

Suggested Modifications (ELL, Sp. Ed, GIfted, At-risk of Failure)

English Language Learners

Native language support: The teacher provides auditory or written content to students in their native language.

Adjusted Speech: The teacher changes speech patterns to increase student comprehension. This could include facing the students, paraphrasing, clearly indicating the most important ideas, and speaking more slowly.

Visuals: The teacher uses graphics, pictures, visuals, and manipulatives. This helps ELL students better understand and comprehend the subjects at hand.

Front-Loading Vocabulary: The teacher front loads vocabulary. This means providing students with a list of important vocabulary words they will need to know for a book, lesson, etc. prior to the lesson being taught. Including pictures to go with the vocabulary words is also very beneficial for the students.

Special Education Students

Chunking: The teacher presents information in a way that makes it easy for students to understand and remember. Chunking is based on the presumption that our working memory is easily overloaded by excessive detail. The best way to deliver information is to organize it into meaningful units. Because students with special needs get overloaded easily, chunking is an effective strategy to use with them.

Checking for Understanding: It is important to constantly check for understanding, especially for students who have accommodations. Teachers want to make sure students understand the

concepts being covered in a way that makes sense to them.

Extra time: The teacher provides students with special needs extra time to complete work or answer questions. It is important to give students enough time to process their thoughts.

Oral Reading: The teacher will read work orally to students. Class work such as tests and literature circles may need to be read aloud to the student.

Timers: The teacher will use timers as an instructional tool. The use of timers is beneficial for students who have trouble completing tasks. Timers can be helpful so the student is aware of how much time they have to complete an assignment.

Students with 504 Plans

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Gifted & Talented Strategies

Extensions/Enrichments: Teachers will provide gifted and talented students with extension/enrichment projects. Students will be challenged to further their understanding, to apply acquired knowledge, and/or to produce something in reference to acquired knowledge.

Modify/Change Activities: Teachers will monitor and modify activities to accommodate those students who need to be challenged further. Additional reading, problem-solving, writing, or project work is necessary for those students who are ready to move on at a rate more accelerated than their peers. In this way, G & T students are provided the same opportunity for support as special needs students.

Students at Risk of School Failure

Directions or Instructions: Make sure directions and/or instructions are given in limited numbers. Give directions/instructions verbally and in simple written format. Ask students to repeat the instructions or directions to ensure understanding occurs. Check back with the student to ensure

he/she hasn't forgotten.

Peer Support: Peers can help build confidence in other students by assisting in peer learning. Many teachers use the 'ask 3 before me' approach. This is fine, however, a student at risk may have to have a specific student or two to ask. Set this up for the student so he/she knows who to ask for clarification before going to you.

Alternate or Modified Assignments: Always ask yourself, "How can I modify this assignment to ensure the students at risk are able to complete it?" Sometimes you'll simplify the task, reduce the length of the assignment or allow for a different mode of delivery. For instance, many students may hand something in, the at-risk student may jot notes and give you the information verbally. Or, it just may be that you will need to assign an alternate assignment.

Increase One to One Time: When other students are working, always touch base with your students at risk and find out if they're on track or needing some additional support. A few minutes here and there will go a long way to intervene as the need presents itself.

Contracts: It helps to have a working contract between you and your students at risk. This helps prioritize the tasks that need to be done and ensure completion happens. Each day write down what needs to be completed, as the tasks are done, provide a checkmark or happy face. The goal of using contracts is to eventually have the student come to you for completion sign-offs.

Hands On: As much as possible, think in concrete terms and provide hands-on tasks. This means a child doing math may require a calculator or counters. The child may need to tape record comprehension activities instead of writing them. A child may have to listen to a story being read instead of reading it him/herself.

Tests/Assessments: Tests can be done orally if need be. Break tests down in smaller increments by having a portion of the test in the morning, another portion after lunch and the final part the next day.

Seating: Seat students near a helping peer or with quick access to the teacher. Those with hearing or sight issues need to be close to the instruction which often means near the front.