

## Strengthening Your Child's Home

# STUDY SKILLS

In addition to participating in class, success in school will require your child to use good work and study habits at home. Your child will need to spend time at home doing homework and other tasks not assigned by the teacher, such as studying for tests and organizing. In this paper, we will review some learning principles, strategies, and methods to improve home study skills. We will examine three learning principles that will help you understand how learning and forgetting take place. Then we will review three general study strategies and three specific study methods that can lead to effective learning.

### THREE PRINCIPLES OF LEARNING

Research has identified three principles important for learning: repetition, over-learning, and meaningfulness.

#### Repetition

When we first encounter information, it is stored temporarily in our short-term memory. Short-term memory can hold information for only about 20 seconds. For information to stay in short-term memory longer, it must be repeated. Short-term memory can only hold from five to nine units of information at one time. In order for learning to take place, information needs to move from short-term memory into long-term memory. Long-term memory can hold an almost infinite amount of information for an unlimited period. Information is moved from short-term to long-term memory by repetition and practice over time.

Students have three formal ways of repeating information (see Figure 1). Teachers know that learning requires practice and provides students with repeated exposure to information in the classroom. Schools assign homework as another important opportunity for students to practice the skills taught in class. In addition, your child may need to spend time at home studying for tests. Each of these provides students with important opportunities to repeat information for learning. Problems in one or more of these areas can decrease learning.

The passing of time has a negative effect on memory (see Figure 2). The longer the time from learning to testing, the less material will be remembered. In addition, forgetting is rapid immediately after the study period, with most occurring in the first day. The amount of material that is remembered will depend on how many times the material was studied. For example, if a child reads a chapter for the first time, one day later the child may only be able to remember about one third of the material. Your child can increase the amount of information remembered by studying the material over several days.

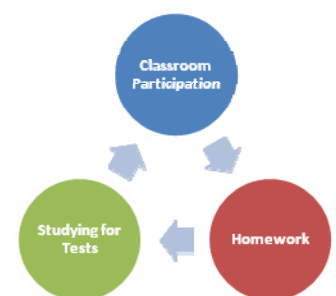
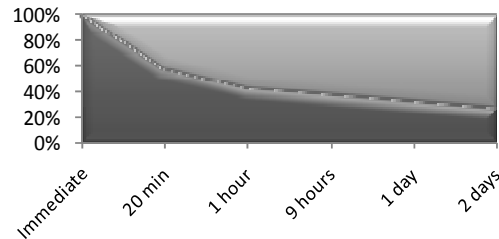


Figure 1. Opportunities for Repetition

Figure 2. Forgetting Over Time



## Over-learning

Over-learning is practicing a new skill beyond the point of initial mastery. This extra practice will result in improved learning. For example, if your child studied some new material until he thought he knew it and then stopped, he would forget most of it by the next day - based on what we know about forgetting. However, if he studied some additional time after he felt like he knew the material perfectly, he would remember more of the material the next day. This additional practice during each study period makes the recall of the studied material more automatic and easier. This can be helpful for students that get anxious during testing.

## Meaningfulness

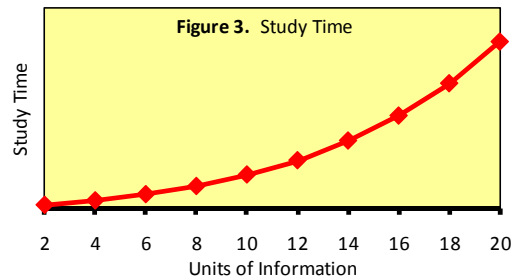
The third principle of learning is meaningfulness. Material that is meaningfully related to other ideas and information is easier to remember. Our minds connect information into a kind of bundle or net. When we recall one part of the bundle, it is easier to recall the other connected parts. For example, for a social studies test, your child may need to learn the fact that Mammoth Cave in Kentucky is a popular tourist attraction in the southeast region of the United States. She will more easily recall this fact later if she connects it with other information, such as a picture of the cave, or the fact that it has underground rivers and is one of the few places with eyeless fish. Facts that are attached in meaningful ways to other facts and ideas are easier to recall than those that are learned alone.

## THREE GENERAL STUDY STRATEGIES

Let's now look at three general study strategies that are based on these learning principles.

### Begin Early

Since learning requires repetition over time, your child should start early. If she does not start early, she may not have enough time to adequately learn the material. How much time she will need when studying for tests will depend on how much material she has to learn. Studies in human learning indicate that as the units of information increase, the amount of time needed to learn each unit also increases (see Figure 3 below). For example, if it takes 10 minutes to learn six spelling words, it may take 30 minutes to learn 12 words. As a rule, the more material there is to learn, the earlier your child should start studying.



## Study Often

Since learning requires repetition, it is best for your child to have multiple study periods with breaks in between. This includes multiple periods within a day and across days. Since learning improves with study over time, your child should spread out his study times rather than “cramming” or studying all at once. If he tries to learn new material the night before the test, he will forget most of it by test time. He will need to study the material over several days.

## Make it Meaningful

Your child will remember the material better if it is meaningfully related to other ideas. Many textbooks do this by providing pictures, examples, graphs, and maps. Make sure your child reviews this material as he reads. In addition, you can discuss what he is learning and relate it to other ideas, current events, or other experiences in his life.

## SPECIFIC STUDY METHODS

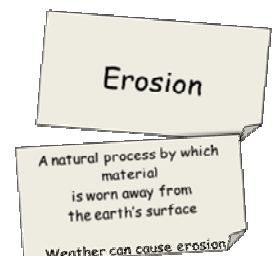
Let’s now review some specific methods for reading textbooks, structuring study times within and across days, and preparing for tests.

In order to do well on tests, your child will need to understand both the broad or “big picture” of the material as well as facts and details. It will be easier for your child to remember facts and details if she organizes them into a meaningful context or structure. The table below shows a variety of methods that can help your child gain the broad understanding of the material. You can assess your child’s overall understanding of the material with general questions like, “What is this chapter about?” or “What are the main points of this section.”

### Methods for Gaining a Broad Understanding

- Surveying the chapter all at once
- Reviewing headings, chapter summaries, pictures, and graphics
- Making or studying an outline of the material
- Going through the class notes all at once
- Discussing the main points of the chapter

Understanding the big picture will not be enough to do well on tests. Tests often require students to know the relevant details. One of the best methods of learning facts is to use study cards (3x5 index cards; see example at right). Study cards are useful for learning vocabulary, dates, people, formulas, processes, and other specific information.



## SQ3R METHOD FOR READING TEXTBOOKS

You can teach your child to use the SQ3R method for reading textbooks.

### SQ3R Method

Survey  
Question  
Read  
Record  
Review

### Survey

Before your child reads a chapter or section, she should survey what she is going to read. She should try to understand the topic and big ideas of the section before reading. She can do this by skimming the chapter or section. Skimming involves quickly reading the title and main headings, scanning the pictures and graphs, and noting any key words.

### Question

Before reading, your child will need to pick a question. She will have better comprehension if she reads to answer a specific question. Keeping a question in mind will keep her alert and focused as she reads. Textbooks often have questions at the end of each section that she can use. Your child can also make up questions using the section headings. For example, if the heading of a reading passage is “Natural Resources of the Southeast,” a question might be “What are the important natural resources of the Southeast?” Have her write the question on one side of a study card.

### Read

With the question in mind, have your child begin reading and keep reading until she comes across the answer to the selected question. Your child should have a supply of index cards and a pencil close while she is reading.

### Record

As she comes across an important fact in her reading, such as a highlighted key word, she can make a study card. When she finds the answer to the question, she can record the answer on the back of the study card. Once she finds the answer to a question, have her select another question and continue her reading. She can repeat the question-read-record steps for each section heading until the entire chapter is completed.

### Review

At the end of the chapter, your child should have a stack of study cards with important information from the chapter. She can set aside the book and focus on learning the material recorded on the study cards. She can use these cards to study and quiz herself. You and your child can use the study cards in two ways when quizzing. It is easier to recall a key word when provided with the definition. It is more difficult to recall the definition when provided with the keyword. At first, she can review the cards the easy way. As she begins to master the material, she can do it the harder way. Doing it both ways will help solidify learning.

## STRUCTURE DAILY HOMEWORK AND STUDY TIME

Help your child structure her daily homework and study time. Most children are able to concentrate for brief periods. How long a child can pay attention will be different for each child. The average child’s mind will need a brief break after about 20 minutes. Your child will learn better if she studies for brief periods with rest periods in between than if she studies in one continuous block of time. For example, your child would likely learn better by studying for 20 minutes at four different times, with rest periods in between, than to study for 80 minutes at one time with no rest periods.

You can teach your child to study hard for short periods with breaks in between using the steps below.

- Set a timer for 20 minutes (less if your child is young or unable to keep attention for this long). Encourage your child to work hard during this time.
- Set a small goal for each study period. For example, read one section of a chapter and answer three questions; or complete 10 math problems.
- Take a 5-minute break after each study period. Reward your child with praise for working hard. Your child should move around or engage in some enjoyable activity during the break. Set a timer to let your child know when it is time for another study period.
- Continue this process until the material needed to study that evening is completed.

### **PREPARING FOR TESTS**

Help your child plan for several days of studying for each test. Your child will need to use his assignment journal or calendar to keep track of test dates. He will need to consult the calendar to know what books to bring home and tests to study for each night. You can use the following steps to structure his study times both within and across days.

- Your child's first goal should be to study the material until he feels like he knows it. For example, he should study his spelling words until he is able to spell them all correctly.
- Once your child feels like he knows the material, have him spend some additional time reviewing the material again (over-learning). For example, he can study his spelling words one or two more times after he was able to spell them all correctly the first time.
- The next study time, either quiz your child or have your child do a self-test of the material using note cards or study guides. He can set aside the material he remembered and focus on the material he did not remember (repetition). He should study the forgotten material until he masters it. Repeat this process for several nights. You should find that your child remembers more of the material each day.

### **TEACHING WORK AND STUDY HABITS**

You play an important role in helping your child learn. You can use a four-step process to teach your child good work and study habits.

- Develop and communicate high expectations about your child's work and study habits
- Teach your child how to use the specific work and study skills
- Monitor your child's use of the skills
- Reward your child for using the skills.

Students form their work habits at the early grade levels. A good time to work with your child is when the workload increases (for example, about 4th grade). You can successfully teach a child as young as 9 years of age to use many of the same work habits and skills that high school and college students use. Since habits and skills take time to develop, you should expect to spend most of the school year working with your child.

At first, you will need to put in extra time teaching your child the skills and monitoring her use of the skills. You probably will always need to stay involved with your child's education;



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however, you can expect to spend less time as she becomes more independent and skilled. Your child will be able to use these study skills throughout her education.



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NW Arkansas Center: (479) 751-6166*

*For additional resources, visit our website:*

**[www.parenting-ed.org](http://www.parenting-ed.org)**

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