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Thinking Games for KIDS

UPDATED EDITION

HELP YOUR CHILD BUILD CRITICAL COGNITIVE SKILLS

IMPROVE YOUR CHILD'S READING ABILITY AND PHONEMIC AWARENESS

CREATE A STRONG FOUNDATION IN MATH AND MEMORY STRATEGIES

Cheryl Gerson TUTTLE AND Penny Hutchins PAQUETTE

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This book is printed on acid-free paper.

To Cameron, Jared, and Braden
—C.T.

To Ben, Carlyn, Jack, Sam, Natalie, Mark, and Michael
—P.P.

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Most of all we would like to express our gratitude to our children—Matthew, Ross, Eric, Danielle, and Michael—who grew up to be such thoughtful adults and helped us prove that the techniques in this book can work.

To the Thoughtful Parent

hen Penny and I first published this book, we believed that playing games with children, interacting with them in positive ways, and becoming involved in their intellectual development at home would make a positive difference for our children. In the fourteen years since, more and more information has become available about learning and child development.

This information on how children learn to read confirmed our original beliefs. Parents can and should be involved in the development of their children. Reading to children, talking to them, and spending time with them will help their intellectual and emotional development.

Even though more statistical information supports the importance of active parenting, we know the job is the most challenging we will ever face. Besides being one of the most difficult professions, parenting is the one for which most of us have the least train-

ing. Between us, Penny and I have raised five children. Parenthood required us each to be teacher, psychologist, nurse, and coach. We did the best we could, but often we needed help. We called the doctor when we needed medical advice, and we talked to family and friends and looked to self-help books for assistance in the psychological areas. We expected teachers to teach our children all they needed to know to succeed in school, and we expected our children to learn.

When we sent our children off to school, we believed, as our parents did, that school could do everything necessary to give them the skills and confidence they would need to thrive and prosper in higher education and in the adult world. Both as parents and as teachers, we soon discovered we were wrong. The schools couldn't do it alone.

It became clear to us that children need extra support. My older son needed to work on his reading speed; my younger one needed help with his math facts. Both had terrible handwriting. Penny's children had trouble with reading comprehension and book reports. Before long, we realized the classroom teacher did not have the time to give them all the special attention they would need. And that was nearly thirty years ago.

Today's School Day

Today, the situation is even more difficult. When we were growing up, the entire school day could be devoted to teaching the basics. But now, new problems reduce the number of hours teachers can spend on the development of foundation-level skills. Budget woes are increasing class size, and the teaching day is fragmented by a multitude of offerings that are essential in today's society. In many local

public school systems, a portion of every day is spent on important topics such as sex education, drug education, self-esteem development, computer literacy, and crisis intervention. Of course, all these offerings are invaluable, but they also take important time away from developing the basics of reading, writing, math, and the application skills that I call thinking skills.

During a typical day in our school system, children are in school for six hours. Fortunately, the school day continues to offer important enrichment activities, including gym, art, and music. Like many school systems, ours also offers special events and self-esteem development programs. Children spend nearly an hour eating lunch and playing at recess. With these activities, almost half the day is already spoken for. During the three hours left, teachers are expected to teach reading, writing, math facts, problem-solving skills, basic geography, and at least some science. Times have changed. Classroom teachers can't do it all. They need help.

As parents and teachers, we recognized the difference involved parents can make in their child's education. When you read to your child, you automatically improve his vocabulary. When you review homework, you show by your attention that learning is important. But if your family is anything like mine was, finding time to squeeze in one more activity is the ultimate challenge.

If the academic day is fragmented, most family days are even more splintered. Often, both parents work outside the home, and many families are managed by single parents. You work, you shop, you do laundry, you fix meals, and you may even manage to give a portion of your day to a volunteer project. Even if your children watch a lot of television and at times seem tethered to their computer games, they aren't exactly idle. They are playing soccer and baseball and softball and football. They go to dance class and piano lessons.

They have paper routes and dentist appointments, Cub Scout or Brownie meetings. You may recognize the need for at-home academic support but perhaps can't find the time or energy to accomplish one more thing during the day.

When I talk to parents during parent-teacher conferences, they are eager to do what they can to help their children learn, but they are also frustrated. In addition to having limited time, they often find that their children are not terribly cooperative.

The frustrations are predictable. Children do not view their parents as their teachers. When I tried to help my children with their homework, they were quick to tell me I didn't do it the way their teachers did, and that my way must be wrong. Penny had similar experiences.

And, as parents, we have to acknowledge that children would rather work on improving their laser-blasting skills than their classroom skills. Children do not want their parents to take what they perceive as precious time away from their favorite television program or computer game. After an afternoon of homework, they don't want to do more "work" on reading, and they aren't too excited about practicing those math facts.

When my oldest was encouraged to practice his reading at home, he hid his books behind the radiator. Homework became a struggle, and our working together created a tension that was not helpful for either of us. My ego was tied to his learning and his academic achievement, and I got angry when I felt he wasn't trying hard enough. We usually ended our homework sessions shouting at each other. This wasn't the way I had visualized the "enrichment time."

Of course, some schools have managed to offer enrichment programs within the school day—what many schools call gifted or talented programs. But what if your child, the one you know has many gifts and a multitude of talents, doesn't quite fit into your school

system's definition of gifted? What if those programs offer other children the opportunity to go beyond the traditional curriculum and learn to integrate what they have learned, the opportunity to develop those essential thinking skills? Or what if your child needs a little extra time or help? Where does that leave your child? It leaves her out.

And where does that leave you, as a parent? It leaves you angry and frustrated. And to make matters worse, you feel guilty because you don't think you have the time or the expertise to help.

The good news is that you are wrong. The primary goals of *Thinking Games for Kids* are to help you maximize your child's enthusiasm for learning, to create a desire for him to practice skills and continue learning, and to help him feel good about himself. And that is not as difficult as you may think.

What Can Parents Do?

I originally designed the activities in this book to help my own boys learn the basics and to improve their images of themselves as learners. My first attempts were not as successful as I had hoped. When I began to use these activities, they looked too much like schoolwork and were quickly rejected. It was not until I "packaged" them so they looked more like commercial games that I was able to capture their interest. Children like to play games. I recognized that and used it to my advantage.

Then my children enjoyed that special time with me. We had fun. They looked forward to playing, and they became excited about learning. I was thrilled with our success. I introduced some of my ideas to Penny and we pooled our experiences as parents and educators to help you have the same positive learning experiences with your child.

We know you can make a difference. Researchers tell us parents are an important resource. In its book, *What Works: Research About Teaching and Learning*, the U.S. Department of Education states, "Parents are their children's first and most influential teachers." The writers of this report further explain that parents have the opportunity to do things at home that will help their children succeed at school, but parents are doing less than they might. Their research has shown that mothers spend, on average, less than half an hour each day talking, explaining, and/or reading to their children. Fathers, on average, spend less than fifteen minutes.

I'm sure you want to spend more time than average, but you may need guidance and direction. The activities and strategies in this book will provide you with tools to help your child strengthen the skills she is learning at school. The games will improve thinking skills, provide structured activities that are both educational and fun, and help you and your child feel good about yourselves.

The self-esteem of young children is fragile and needs to be nurtured. The games themselves won't miraculously improve self-esteem, but they will provide you with a way to give positive messages to your child.

If your child knows there will be a time set aside when you will be together, you are showing him he is important and that you want to be with him. Because these games are organized so that there is more than one way to win—by points, by creativity, and/or by chance—there are many opportunities for praise and positive reinforcement. We all like to hear good things about ourselves, and when the words are said often enough by someone we trust, we begin to believe what we hear.

Most of the games in this book are intended for children in preschool through third grade. However, we recognize that older children like to play, too. In this new edition, we have included

instructions for adapting the games or the rules of the games, so it is easy to include older children as well.

Why This Book?

As with the previous edition, Chapters 2 through 4 offer games that enhance reading, writing, and arithmetic skills—the three Rs. In this revised edition, Chapter 1 starts with the newest research in reading readiness—what reading specialists call *phonemic awareness*. Experts now believe that an emphasis on the individual sounds (phonemes) of spoken language helps better prepare our children to understand the connection between the spoken word and the written word. What parents and teachers long suspected was an important component in learning to read is now visible, as functional magnetic resonance imaging (fMRI) technology allows us to watch the human brain as it learns new words. This new technology provides us with concrete evidence about learning to read, and we now know that process can begin long before children learn their ABCs. The first chapter introduces the skills that experts believe are the best predictors for reading success.

The final chapter focuses on an equally important R: remembering. We present games in this chapter to help your child develop the strategies necessary for remembering everything from the name of a classmate to the facts of a social studies assignment.

Each game in the book includes a discussion of the skills developed while playing, directions for playing the game, the materials needed, the amount of time to allow for play, adaptations for older children, and suggestions for variations. Under the "Number of Players" heading, the numbers include a parent unless otherwise indicated. By reading the "How to Play" section, you can determine whether the activity is appropriate for your child. The "Hints and

Variations" section will provide you with expanded guidelines for play, so you can modify the games to fit your family. Personalized variations will add to your enjoyment while improving your child's self-esteem and thinking skills.

Of course, every child is different, but all benefit from attention and validation. It is important to remember that how your child learns can be even more important than what he learns.

What Brain Research Tells Us

As researchers have learned more and more about how children learn, we can take advantage of that information. We know a lot more about how the brain works, and we have come to appreciate the importance of the connectors, called neurons, that help process information within the brain. With the help of neurotransmitters, these connectors—some researchers estimate there are forty quadrillion (40 followed by fifteen zeros) possible connections—send and receive messages and power the process that helps us learn.

According to John Ratey, in *A User's Guide to the Brain*, these neural connections are stimulated, expanded, and strengthened when we take part in activities that challenge our brains. As we challenge children with activities that strengthen a specific skill, the number and strength of neural connections devoted to that skill are improved. The good news is that brains selectively strengthen the connections that are used. The bad news is that those left idle die off. This neurological activity continues throughout our lives, but opportunities for strengthening and growth appear to be the most pronounced between the ages of two and eleven. What an opportunity for parents! We can take advantage of this window of opportunity to provide neurological "strength training."

We know that children are born with the biological capabilities for learning. We also know that, as the brain is challenged, it stretches

to form new connections. These new connections make learning easier. Once a particular subject is mastered and stored in the lower areas of our brains, it becomes hardwired into our long-term memory. When this happens, neurons once engaged in the learning activity can move on to new challenges.

While the biological component is important, emotions cannot be underestimated. When children enjoy what they are learning, they are willing to devote more time to it. And nothing improves skills like practice. When children are actively engaged in playing, the connections get stronger. When they are successful, their motivation to learn is further enhanced. As a parent, you can create an environment where creative thinking flourishes.

Why These Games Work

It doesn't take a lot of time to help your child engage in thoughtful play that strengthens the connections in the brain. The activities in this book are designed to give the maximum benefit in the minimum amount of time. Some take only minutes to play, require no special materials, and may be taken up at the spur of the moment.

We have also attacked one of the other stumbling blocks to our success in helping our own children. When my children were younger, most of the games they wanted to play were not enjoyable to me as an adult. Most were too repetitive; they did not use thinking skills creatively; they were too long; and someone always felt like a loser. I hated going around the same game board over and over again. So I planned activities that challenged the children and me, with an emphasis on creativity and humor. If I wanted to play with the children, the games would have to be fun for all of us.

Together, Penny and I have taken these early experiences and created games that all families can enjoy. These activities teach new skills, enhance old ones, and best of all, don't feel like work. They

use basic skills in new and different ways every time each game is played. The prereading, reading, and writing activities develop language skills that help children make themselves understood. While playing the math games, your child will use math facts not only to arrive at a sum or a remainder, but also to make judgments about his immediate world and to arrive at logical conclusions. Because strategy is an important part of all the games, your child will develop strong thinking and problem-solving skills.

These games accept the fact that most children enjoy competition but ensure that the enjoyment of playing is more important than winning or losing. (If competition is stressful for your child, you don't have to keep score.) Remember, winning does not necessarily mean someone else has to lose. We need to think of winning as the accomplishment of an objective—a goal reached.

The activities allow enough variation in rules so children of different ages can play with parents at the same time. You can encourage your children to use their imaginations and their creativity in picking materials for some of the games or in making variations in the playing style. Children who enjoy playing commercial games may even create their own game boards from a shirt cardboard or a file folder. They may add bonus or penalty squares to introduce the element of chance. Redirect their computer activities and have them find images that can be used in the games. The choice is theirs.

You will need no special knowledge to play. You don't have to know phonics or algorithms. You need only be open to new ideas. It is important to use your child's knowledge as a base to build on. If your child is just starting to recognize beginning and ending sounds in words, encourage her to play the games that will strengthen those skills. If she has a basic understanding of math facts but needs some drill work, guide her toward a game that makes strengthening memory skills fun. Be sure to reward creative behavior, and your child will begin to view learning as an exciting and self-rewarding activity.

You can provide a rich environment and a variety of activities to stimulate your child's imagination. As Albert Einstein said, "Imagination is more important than knowledge, for knowledge is limited, whereas imagination embraces the entire world." Allow your child to be directly involved in choosing the activity and interpreting the rules. Play with your child and show her that learning, at any age, can be fun. You will plant a seed and watch your child grow in self-esteem, curiosity, creativity, and independence.

The games also help alleviate guilt. Sure, we would all like to have the time to pack our children in the car once or twice a week to see the latest exhibit at a science museum, children's museum, or art museum. That's just not always possible. We may not have a lot of time, but we can make the most of the time we have. We can enrich our children's lives in short bursts when we recognize that that time is valuable to a child's development. We can do something at home that is challenging, productive, and creative. Because the activities require no special materials or use materials found around the house (newspapers, cards, kitchen items), the games can begin spontaneously.

These activities don't expect you to be a teacher in the classroom sense. Instead, they help you find ways to interact with your child as a parent who loves her and wants to enjoy her company. The activities teach that learning never stops, no matter how old you are.

Tips for Getting Started

If your child is resistant, don't force the games on him. Try to determine why he does not want to play. Is he afraid he will lose, or is he embarrassed to be playing where his friends might see him? Is he unsure of his ability with words or numbers, or does he just want to be someplace else? All of these issues exist at some time and must be taken into consideration. If you still cannot get him involved, post-

pone the activity. Try again at the dinner table or at the breakfast table, but don't get upset if he won't take the bait. Sometimes the best way to engage a reluctant child is to play during those long periods of waiting, especially in the car. If your child is a reluctant participant, browse through the book and find the games that can be played without any special materials. Then you have the opportunity to play a game, and your child won't even know it. Making sentences from license plate letters, playing with license numbers, and creating wordplay derived from street signs gives your child something to do during that boring car time. Once he has enjoyed the games in that environment, he may be less reluctant to play at home.

Remember, these games are designed to increase fun times with your child, not to produce tension.

When working with your child on academic skills, you can use the same approach as you would in teaching him a sport. A child learns to pitch a baseball or ride a bike by practicing with his parent. You point out technique, discuss strategy, act as a role model, and praise the child at every opportunity as he gets closer to the goal you both have set. You work toward establishing good habits.

The time you set aside may be as individual as the game you choose to play. It is important to choose a time when you are full of energy and enthusiasm. If you are an evening person, try the time right after dinner. If you are a morning person, you can play parts of these games at the breakfast table or on Saturday morning. But if your best time coincides with your child's favorite cartoon, postpone your game time.

Also consider your child's best learning time. Passive or hostile learners rarely absorb much. It would be ideal if both you and your child had the same high-energy time, but that is rarely the case. My sons were both grouchy in the morning—my best time. They would hardly talk, much less answer questions. It was hard enough to find out what they wanted for lunch! This was not a good time to try to