



The Art of Learning *project* A W. W. Norton Initiative

**The Parents' Guide to  
The Art of Learning** By Josh Waitzkin





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## A Note about The Guide

**The Parents' Guide** presents descriptions of the core principles in *The Art of Learning*, correlating chapters in the book to read, and actions to take to further your understanding of the material and the ways in which it can be applied to your child's life.

Whether you are probing this material on your own or collaborating with teachers and other parents, we hope it will give you greater insight into your child and further his or her learning, performance and growth.

For maximum benefit, we encourage you to delve into the book and the guide and participate in group discussions in a steady, step-by-step fashion. However, the guide is essentially a menu of options and even partial engagement with its content will deepen your understanding of *The Art of Learning* concepts. Therefore, you should feel free to use it as you see fit.

As always, we are here to support you—please don't hesitate to contact us.

Enjoy!

Sincerely,

The JWF Team



## RESILIENCE

### Value Process Before Results (Chapters 3, 4, 10)

True learning occurs through a process of hard and sustained effort and a nuanced understanding of each challenge, gain, and loss along the way. Therefore, it is more important to draw insights from every step we take rather than focus on any end reward or goal. Labels like “winner”, “loser”, “smart” or “dumb” ignore this fact and should be avoided. They lock our sense of ourselves in place, strip us of motivation, and make it difficult, if not impossible, to keep going and evolving.

#### ACTIONS:

1. Think about how you can emphasize the process of learning and practice over winning and earning high grades. Your mission should be to encourage and celebrate devoted and sustained effort that incrementally expands your child’s level of knowledge and ability. Bear in mind that mistakes and failures, which are inevitable, provide vital opportunities for learning and the mission is not to dwell on mistakes but rather to focus on drawing out the lessons.
2. Read and absorb this quote from *The Art of Learning*, which is based on research conducted by Dr. Carol Dweck, a leading developmental psychologist.

*“Children who are “entity theorists”...are prone to use language like ‘I am smart at this’ and to attribute their success or failure to an ingrained and unalterable level of ability. They see their overall intelligence or skill level at a certain discipline to be a fixed entity, a thing that cannot evolve. Incremental theorists, who have picked up a different modality of learning, are more prone to describe their results with sentences like ‘I got it because I worked very hard at it’ or ‘I should have tried harder.’ A child with a learning theory of intelligence tends to sense that with hard work, difficult material can be grasped- step-by-step, incrementally, the novice can become the master.” The Art of Learning, p. 30.*



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Bearing this notion of growth and mastery in mind, think about the language you use to motivate your child and evaluate your typical reactions to his/her performance. Think about how you might want to change the way you speak. Write down your most common reprimands or reactions when your child makes mistakes, brings home disappointing grades, or doesn't perform optimally in extra-curricular activities. Mentally play back the tone you use as well. Consider also the compliments you give, their degree of honesty, and whether they are preparing your child to be resilient in the face of inevitable failures.

### Investment in Loss (Chapters 10, 18, 19, 20)

**We expand our minds and develop our capacities by allowing ourselves to confront hurdles, experience losses, and take a good hard look at them. Although stepping away from what is known and familiar and taking risks can be uncomfortable, doing so affords rich opportunities for learning. A willingness to lose and analyze the loss, as well as the unsettled feelings that accompany it, cultivates flexibility. This, in turn, allows us to move forward and gain additional wisdom, no matter what we may encounter along our path.**

#### **ACTIONS:**

1. Brainstorm new strategies for:
  - a) Letting your child experience true repercussions from his/her skill and knowledge levels and actions
  - b) Enabling your child to use setbacks to learn how to apply greater effort and/or new approaches
  - c) You role modeling a willingness to confront obstacles, learn from them, and work hard to overcome them

Work with your child to review his/her performance. Discuss his/her views of what led to less than optimal results and come up with a plan for learning the information and/or practicing the techniques more thoroughly, and perhaps from a fresh perspective. Always let your child see you mining your own setbacks and failings for knowledge and striving to do a better job.



## **Beginner's Mind (Chapters 8,9)**

**Children learning to crawl approach the surroundings with unstoppable curiosity and an eager, joyful sense of adventure. They have no concern for how they look nor the judgments of others. What propels them forward is a general delight in all that is unfamiliar; an ability to be intrigued by the mundane; and a desire to probe the most minute details along their path, over and over again. The best learning results from this kind of openness—from being fully awake to the experience at hand, receptive to gaining even tiny insights from it and to refining one's method in response. An inner willingness to adopt the nonresistant approach of a beginner and gradually perfect one's knowledge manifests outwardly as forward movement and, over time, as graceful expertise.**

### **ACTIONS:**

2. Consider your language and behaviors: Do they emphasize constructive, even-keeled encouragement and engagement rather than harsh criticism, impatience, or neglect? Devise ways of speaking to your child that reflect an interest in what he/she is doing and support a joyful and non-resistant attitude as well as sustained effort and risk-taking.
3. Now think about and write down behaviors you can adopt that will foster in your child an upbeat willingness to acquire new knowledge and skills. What actions can you take that show your openness to your child's progress and promote his/her enthusiasm for ongoing learning?
4. Consider your own approach to learning new things and what you can do to role model an enthusiastic and receptive attitude.

## **Using Adversity (Chapters 5, 12)**

**Being able to handle life's dirty tricks without losing one's equanimity, interest, and joy is vital to learning and achievement. The ability to call on one's knowledge and apply it well and completely is disrupted when we fall prey to emotional disturbances. Rather than deny or stifle emotions, we must work to gain an understanding of them, learn to make peace with them, and ultimately, channel them into higher levels of performance. By**



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**keeping our cool under trying conditions, we can arrive at precise conclusions and take positive and effective action at all times, especially during the most complicated and critical moments.**

### **ACTIONS:**

1. Think about your own emotional state and that of your family members; consider the ways in which the expression of emotion plays out in and outside your household. Devise strategies for gaining an understanding of your emotions and staying cool despite life conditions.
2. Demonstrate to your child a willingness to look deeply and introspectively at your own feelings and emotional expression.
3. How can you help your child understand the sources of his/her emotions and their impact on all aspects of his/her life, especially learning and performance?
4. Think of ways you can help your child develop more serenity and evenness in the face of challenges without denying his/her essential emotional nature and feelings.
5. If emotions are strangling progress in you or others in your household, consider seeking professional support to work through them.

### **The Internal Solution (Chapters 5, 7, 12, 18)**

**If we can prevent ourselves from being thrown by heightened emotions and instead learn to flow with them, the physiological responses they produce in us can help us defeat obstacles. To harness feelings for a defined purpose, we must first develop an understanding of and tolerance for inner turmoil. We should learn to observe our passions; understand their sources and their unique character. Then we will be able to transform them into creative inspiration for successful action. Once we have an in-depth awareness of our personality and the ways we react to external stimuli, we can use our minds to evoke a powerful internal physiological state at will and channel it to great advantage.**



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### **ACTIONS:**

1. Think about the things that cause your child turbulence. Discuss the sources of the turmoil with him/her and how these situations/things make him/her feel. Now, consider ways to help your child flow with common disruptive conditions that cannot be prevented or avoided. Do everything you can to eliminate situations that are psychologically damaging and not endemic to scholastic and athletic competition and growth, of course, but also coach him/her about adopting a cool perspective.
2. Once your child has a better understanding of the quality of his/her emotions and what gives rise to them, help your child understand how he/she can channel natural reactions to external realities to his/her advantage.
3. Once your child is familiar with what his emotional states feel like, help him/her figure out ways to spark and harness these qualities for inspiration—even when the outer conditions that typically cause them are non-existent.



## PEAK PERFORMANCE

### The Power of Presence (Chapters 15, 17)

We enrich our experience of life by attuning ourselves to its subtlest aspects and delving deeply into its details. One cannot excel at a pursuit nor experience its delights by bringing a skimming approach to it or handling related responsibilities in a shallow manner. To excel, our perspective must be that everything is on the line at all times and we must maximize each and every moment's potential. To do so demands that we be fully present and engaged at every stage of our relationships, studies, and work—not just in the moments we think are critical but also in the moments leading up to them. And when there is no one to look in; no one to give feedback or cheer us on, a keen but relaxed focus will enable us to motivate and monitor ourselves.

#### ACTIONS:

1. Consider your child's approach to his studies and other pursuits and responsibilities. To which of them does he/she take a shallow, skimming or distracted approach and to which does he apply a deeper, fully present attentiveness?
2. Devise ways to promote an understanding of 'full presence' in your child—for example, through discussion and your own role modeling (are you fully present in your interactions with your child and in your other pursuits?).
3. Analyze what is preventing your child from being fully present and engaged in his/her studies and other activities. In this analysis, consider technological sources of distraction—from TV and cell phones to MP3 players and computers. What can you do to constructively curb the various distractions in your child's life?

### The Soft Zone (Chapters 2, 5)

Life is full of random, unexpected events and demands. It is vital that we gain awareness and understanding of our reactions to these intrusions in





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order to cultivate an ability to remain calm and collected when they arise. To maximize our ability to develop and draw on our knowledge base, we should not brace against disruptions and the emotions they stir, but rather adopt a nonresistant attitude. This allows us to absorb information, process it smoothly and quickly, take appropriate action, and grow from the experience; we become resilient in the way a flexible blade of grass can bend and sustain most any kind of assault. With a stiffened and strained approach to upheaval, however large or small, we cannot sustain focus and call on our full wisdom; we become brittle and lose our ability to clear the hurdles, like a dry stick snapping under pressure.

### **ACTIONS:**

1. Analyze your personal approach to intrusion, pressure, and upheaval. To what degree do you role model resilience for your child? Consider how you speak and act in the face of unexpected, trying events.
2. Discuss the importance of flexibility with your child and its effect on absorbing and processing information—use the image of a blade of grass bending with the wind and the opposing one of a dry, brittle branch snapping under its pressure.
3. Consider the ways in which you can help your child develop a nonresistant, calm attitude when challenges arise. Engage him in discussion about his/her reactions as they arise with the goal of cultivating a deeper awareness and making resistance against disruption less of an automatic response.

### **The Downward Spiral (Chapters 5, 6)**

When we cling to the troubling emotions that result from an obstacle or loss, we abandon the present for the past. In short order, we find ourselves using our personal resources to wage an internal war instead of using them to handle what is going on now and move forward. By focusing on a past problem it becomes easy to believe that things have taken a turn for the worse. In not being awake to the present, we magnify the original loss, allowing it to produce a ripple effect of additional problems. These, in turn, take us even further off a course of growth. We must stay cool under fire and fully in the present to glean the most we can from every experience and achieve success.



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### ACTIONS:

1. Think about your and your family's life. Has a downward spiral taken hold at any point due to one or more of you clinging to turbulent emotions stemming from a past incident that shifted your focus away from the present?
2. Has your child ever been sucked into a downward spiral as the result of his/her emotional reactions to an obstacle or loss? Think about how you can address your child's emotions and his/her attachment to them to prevent ripple effects from happening.
3. Explain the *downward spiral* process to your child to help him/her ward off the obstacles it presents to learning, growth, and forward movement.

### Stress and Recovery (Chapter 16)

The natural world embodies a rhythm of action and inaction that enables plants and animals to muster the energies they require for sustenance and growth. Bears enter caves and hibernate in the winter. Plants, too, enter a dormant phase during which biological processes occur that make it possible for them to reemerge in the spring. By alternating cycles of rest with activities that push us to the outer limits of our abilities, we strengthen the bond between mind and body in a way that fuels peak ability and high-level learning and performance. Because all aspects of our lives are interconnected, the practice of stress and recovery should be incorporated into everything we take on—all experiences will be enriched as a result. Effective methods include: meditation, stretching, exercise, deep breathing, play, even washing one's face. By conditioning ourselves to move fluidly between intervals of engagement and relaxation, it becomes possible to condense the duration of recovery time needed for learning and exertion; we become more able to rally our powers of intuition and creativity and call on our knowledge and skills at a moment's notice.

### ACTIONS:

1. Discuss with your child the importance of alternating stress and recovery—periods of intense and focused action with periods of rest and relaxation. Cite examples from nature and your own life and how rest and serenity boost intuition, creativity and overall performance.



2. Analyze your child's routines. Is he/she incorporating regular cycles of rest and rejuvenating breaks into his/her schedule? Devise strategies (solicit your child's input) for integrating recovery methods and periods into the day and alternating these with studying and other demanding activities.

### Building Your Trigger (Chapter 17)

Every one of us has one or more activities or experiences that can lead us toward serenity. To create your own catalyst for peak performance, first identify the one key activity that is *most* relaxing for you. Then shape a simple routine comprising this and four to five additional personal relaxation methods *you know work for you*. Practice this routine daily for one month during down time to entrench a calm state of mind.

If you can only identify *a single* activity that leads you to serenity, shape a routine of simple activities to practice before or after your known relaxation producer. After a month of practice, the soothing psychological benefits of your key activity will have suffused the routine; you will be able to use the routine to produce a state of calmness even when the key activity is not a part of it.

In both cases, the routine should be of your choosing but could, for instance, include a few minutes each of jogging, bathing, showering, walking, eating a snack, snuggling with a loved one, listening to a song, smelling something pleasing, or meditating. By the end of the month, you will have internalized a deeper sense of peace and reaped many physiological benefits. You can then use your routine as a prelude to a high-stress activity in order to enhance your psychological state and build a solid foundation for excelling—before critical moments at work, school and on the playing field. Gradually and incrementally condense the routine. In short order, you will be able to produce all its benefits by merely thinking about it or practicing a few seconds of it.

#### ACTIONS:

1. Think about and identify your child's main serenity producer. Now, if possible, list a few additional activities or experiences that you believe lead to serenity in your child. Discuss with your child the things he/she thinks produce relaxation for him/her.



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2. Devise a routine for your child to practice that incorporates the main serenity producer and four or five other methods. Make sure that he/she practices the routine daily for one month. If you can only identify one definite thing that produces a state of calmness, create a routine with some activities you think your child will enjoy and find calming and practice this immediately before or after the key serenity activity you pinned down.
3. After one month of practice of either of these two types of routines, ask your child to begin employing the routine before he/she engages in any high-stress activity, for example taking a test, giving an oral presentation, engaging in a sports or academic competition.
4. Help your child gradually condense the routine down to the point that he/she is able to reap its calming benefits by just playing it out mentally in his/her head or practicing it for a few seconds.



## THE ART OF INTROSPECTION

### Listening First (Chapter 1, 8)

The first step to artful teaching is tuning in to the essence of the student. It is critical that we appreciate each individual's unique learning style and natural voice, and take these into account when instructing them. By allowing students to express themselves through their learning process and what they learn, we not only expand their capabilities but also their interest in forging ahead. Teachers have a very fine line to walk in preserving in their students a balance between passion and discipline, analysis and internalization of fact and technique. This balancing act demands that they neither offer false compliments nor dismiss seemingly wayward ideas—but rather prompt probing discussions of students' ideas and methods and coach them in a manner that is in keeping with who they are. A sensitive, tailored teaching strategy accompanied by a clearly expressed expectation of achievement can make the difference between helping students' minds carve themselves into maturity and stripping them of this ability as well as their joy. Teachers who position themselves more as guides to development than as omniscient authorities end up promoting in pupils a lifelong hunger for absorbing, processing, and applying knowledge effectively.

#### ACTIONS:

1. Think about your child's nature and characterize his/her natural voice. Pinpoint what you think his/her unique learning style is. Is it kinesthetic (learning through movement and action), visual (learning through what one sees), auditory (learning through listening), or perhaps some combination of the three?
2. Give some thought to your approach to your child's education. Are you more of an all-knowing and rigid authority or a guide who tunes in to your child's natural inclinations and interests and tries to encourage his/her learning through those? Devise ways you can express a more guide-like approach.
3. Discuss your child's interests and approaches with him/her and express your desire to encourage and coach him/her with these in mind. How can



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you engage your child beyond enforcing rigid household rules and issuing harsh demands?

### Loving the Game (Chapters 4, 8)

**As children, we have a natural love for discovery and new challenges. Learning and ambition are playful adventures rather than dizzying experiences fraught with a sense of danger; whenever we fall, we get right back up again. But, as we mature, we begin to attach a sense of risk and fear to learning and performance and seek the comfort of old knowledge and methods. To learn and perform at increasingly higher levels, especially under stressful circumstances, we must reconnect to the experiences of our youth—to those times when our natural approach to discovery was light-hearted and being a beginner and a learner was joyful. At the core of success lies the journey from childhood back to childhood again. It is by taking this journey that we can discover how to maintain a harmonious balance between our pursuits and our own unique disposition.**

#### **ACTIONS:**

1. Consider your son's/daughter's approach to learning. Is she/he still capable of approaching learning with the joyful passion and risk-taking of early youth or is it difficult for him/her to accept being a beginner, flow with a sense of discovery, and 'go at it' again and again?
2. Discuss with your child the critical importance of reconnecting to the love of discovery and learning, exchanging fear for the joy of new knowledge and mastery.
3. Try to consistently emphasize process over results (*revisit the first section of this guide*) to help your child overcome the fear of failure, which obstructs a natural love for learning. Think about how you can emphasize the process of learning and practice over winning and earning high grades. Your mission should be to encourage and celebrate devoted and sustained effort that incrementally expands your child's level of knowledge and ability. Mistakes and failures, which are inevitable, provide vital opportunities for learning and the mission is not to dwell on mistakes but rather to focus on drawing out the lessons.
4. Devise ways to help your child restore his/her spirit of adventure; make sure to consider ways of speaking to your child that do not dampen his/her



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hunger for new knowledge—avoid placing too much pressure on your child or instilling fear; show gentle but firm support.

5. Also pay attention to how you role model learning—do you show a joyful, enthusiastic willingness to learn new things? If not, think about how you can.

### Breaking Down Walls (Chapters 7, 9, 10, 18)

**Themes that arise in one area of our personal lives will also surface in other areas—all aspects of life are interconnected. The ability to learn and perform in consistently effectual ways is therefore impacted by our general state of mind. It is vital that we unearth the psychological patterns and emotional responses that get in the way of our successes and take our weaknesses on. By bringing awareness to the threads connecting mind and action, we can break down the walls between the disparate parts of our lives that we have mentally built up and take corrective steps to transform all our weaknesses into strengths.**

#### **ACTIONS:**

1. Think about your child's emotional reactions and the various conditions that produce them. Consider whether these emotions are getting in the way of his/her learning and academic progress.
2. Think about what you can do to bring attention to these disruptive conditions and emotions and what corrective actions you can take to help your child understand and resolve them. Consider professional support as well.
3. Discuss the notion of interconnectedness with your child to help him/her see how our reactions in one area of life always impact on another realm. An excellent pathway to helping a child discover thematic connections is to talk about principles that are common to different areas of life. While details are often task-specific, focus on the broader, more universal axioms that emerge from details—these can help a child learn to think thematically.



## Intuition: Developing The Internal Compass (Chapters 13, 14)

To truly excel, we must cultivate access to intuition—the bridge between the conscious and unconscious mind that is the well-spring of our creativity. We can achieve this access by alternating deep and repetitive study at the highest possible level with periods of rest and relaxation. When we connect with our intuition, we are calling into service a part of our brain that can perceive the interconnections between vast amounts of technical knowledge and instantaneously harmonize them into a single creative solution.

### ACTIONS:

1. Talk to your child about the conscious mind, the unconscious mind, and the concept of intuition as a bridge between the two and its vital importance to the learning process. Cite examples from your own life in which you have accessed intuition.
2. Explain to your child what happens in the brain (we connect with intuition) when we repetitively alternate practice and study at the highest level possible with rest and relaxation.
3. Think of ways you can encourage your child to work at a high level and alternate periods of effort with rest and relaxation that integrates methods that are effective for him/her (remember, these can be simple, from washing one's face to walking around the block).
4. Begin each day by journaling for a few minutes. Do this first thing in the morning—this is an enormously fertile time to tap into the unconscious parts of your mind and spur creativity. Encourage your child to do the same and discuss what emerges. This kind of sharing is a beautiful way to deepen your relationship with your child and develop your and his/her ability to look inwards and process thoughts and feelings.

## The Middle Way: Navigating Greyness (Chapters 9, 19)

To maximize learning and use the knowledge we gain to perform at a high level, we must be willing to engage in a process that pushes us to the outer edges of our abilities, yet does not stretch us so thinly that we run the risk of breaking down. Ideally, we will allow the bar to move a bit higher with





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each step we take along this balanced middle road—just enough to engage our capacities fully and let us experience some success. This approach can spur us on to additional growth and wins. In order to strike a balance between pushing ourselves forward and preserving a sense of wholeness, we must be willing to let go of our prior notions of adequacy and pursue a strategy of growth that upholds our unique learning styles as well as the passions that give expression to who we are.

### **ACTIONS:**

1. Talk to your child about his/her definition of *adequate* performance and share your insights about how we must incrementally push beyond this definition to progress and grow. Listen carefully to his/her responses for clues about how to encourage and motivate him/her.
2. Think about strategies that can lead your child to study and practice at the outer edges of his/her ability and motivate him/her to push beyond old limits on an ongoing basis. Make sure that your methods are in keeping with your child's unique learning style and that they will not cause him/her to break down. Discuss your thoughts in a collaborative way with your child and allow him/her to weigh in.



## ADVANCED LEARNING

### Master the Fundamentals (Chapters 3, 11)

It is most effective to launch into the learning process by studying a discipline's most fundamental principles. A devotion to mastering the nuances of these basics builds the foundation required for more complex understanding; creative bursts of inspiration; and higher levels of achievement, which result from an interplay between knowledge, intuition, and creativity. By studying and deeply internalizing core concepts we develop our brain in ways that allow us to achieve a more penetrating understanding of not just one subject or practice but also all others we choose to undertake. As we immerse ourselves in doing what it takes to absorb and build on fundamentals, we experience first-hand the joy of learning and reinforce for ourselves its value. Allowing ourselves to grasp the intrinsic benefit of personal development through what we do to achieve it enhances our motivation and equips us to take learning further.

#### ACTIONS:

1. Discuss the value of mastering a subject's fundamental principles with your child and why these 'building blocks' are absolutely essential to future growth and mastery.
2. Think about your child's education in various subject areas. Is she/he being offered and gaining an understanding of the basic principles in each field so as to be able to build on a solid platform of knowledge?
3. Think of ways you can assure that your child is truly learning and mastering the fundamentals in various subject areas—analyze what can you do to make sure he/she is offered this knowledge and how can you support his/her mastery of it. If core knowledge is missing in a particular area, what can you do to help your child obtain it?



## Learning the Macro From the Micro (Chapter 11)

**We cannot hope to grasp the inherent joy and beauty of learning nor lead a life of serious accomplishment if we only skim the surfaces of subjects and acquaint ourselves with thin layers of knowledge. In order to excel, our approach to learning must emphasize depth over breadth. We have to resist the attraction to superficial stimulation that our media-driven society cultivates. The alternative is to dive deeply into small pools of information in order to explore and experience the operating principles of whatever we are learning. Once we grasp the essence of our subject through focused study of core principles, we can build on nuanced insights and, eventually, see a much bigger picture. The essence of this approach is to study the micro in order to learn what makes the macro tick.**

### **ACTIONS:**

1. Does your child seem to take a skimming approach to learning rather than delving deeply into focused areas of information? If this is the case, talk to your child about the critical importance of focusing on a small pool of information and thoroughly exploring the foundational principles of his/her subject areas and pursuits. Explain how we must grasp the essence of something before we can expand our knowledge base and achieve higher levels of insight.
2. Consider your child's use of technological devices and the degree to which they distract him/her from in-depth study of scholastic subjects and uninterrupted penetrating focus on extra-curricular pursuits. Think of ways you can curb use of technology during study and class time; involve your child in coming up with restrictions and ask that he/she give you feedback on the impact of reduced use.
3. Think about other reasons your child may be skimming instead of focusing in on a narrow area of information and probing a subject deeply. What can you do to remove these other obstacles?
4. Think about your own behaviors. Do you role model focused attention while executing your responsibilities? How about while engaging your child and other family members? If not, think of ways you can correct course.



## **Making Smaller Circles (Chapters 7, 11)**

**We have to be able to do something slowly before we can do it quickly. By delving with laser-like focus into a basic set of concepts or practices over a period of time, we can gradually internalize the knowledge. The process of reviewing and creatively exploring these basics over and over again leads to a very refined, nuanced understanding of them. We eventually integrate the principles into our subconscious mind where we can draw on them instinctively and rapidly without conscious thoughts getting in the way. This deeply ingrained knowledge base can serve as a meaningful springboard for more advanced learning and action.**

### **ACTIONS:**

1. Does your child delve into and practice the basics of his academic subjects and extracurricular activities over and over until he/she really internalizes them? Encourage your child to repetitively delve into the fundamentals to gain the most nuanced grasp possible—this will allow him/her to integrate them on a subconscious level and draw on the insights easily and instantly without the interference of conscious thoughts.
2. Consider setting aside time to review fundamentals with your child or have him/her practice in your presence. Think about effective approaches for encouraging your child to revisit these basics over and over again in a focused way in order to achieve more nuanced levels of understanding. Again, these ways must be in keeping with your child's learning style and natural disposition.

## **Numbers to Leave Numbers (Chapters 7, 11)**

**By studying discrete pieces of information thoroughly and practicing their application repetitively, they eventually shed their technical, nitty-gritty character. This happens because the process of digesting small chunks of knowledge over and over again shifts it from the conscious mind to the unconscious mind where it can connect with other chunks of internalized knowledge and manifest as the sudden burst of insight we experience as free-flowing intuition. This high level of knowledge integration is what we should aim for—it allows us to access what we have committed to learning in a fluid, precise, and improvisational manner.**



**ACTIONS:**

1. Talk to your child about Josh’s concept of “integrating technical information into what feels like natural intelligence.” Ask your child if through repetitive study and practice he/she has ever experienced a state of flow or burst of insight that seems to transcend nitty-gritty information or techniques. Ask him/her to describe this experience of free-flowing intuition.

**Bringing It All Together (Chapter 19)**

**These are the steps to high-level learning and performance: Delve into the essential aspects of a small pool of basic information that is foundational to your chosen topic or field and do so in a manner that is in keeping with your unique learning style. Building on this base, devote your self to exploring new, ever more advanced sets of information and technique that lie at the outer edges of your ability or understanding. Alternate such periods of pushing yourself to your limit with periods of rest and relaxation that foster recovery and creativity.**

**By approaching learning in this way, your internalized knowledge will lead to bursts of insight and discovery, which you can expand further by breaking down the mechanics that led to your achievements. Eventually, you will come to recognize the feeling that a refined and integrated body of knowledge produces in you and you will be able to target the re-creation of this feeling as you pursue new subject areas.**

**ACTIONS:**

1. Review all of *The Art of Learning* principles with your child on a regular basis without being heavy-handed. Explain the vital importance of each to the learning process and to high-level performance, whatever the subject or endeavor.
2. Monitor your child’s progress and growth and take note of each of the above principles’ impact on his/her development. Encourage refinement as necessary.

