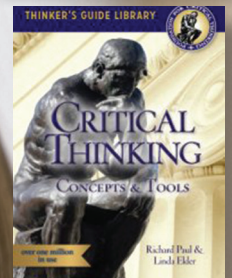
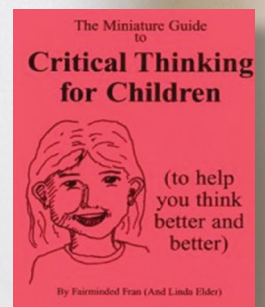


For The Miniature Guide to
Critical Thinking
For Children



By Linda Elder

Dear Fellow Teacher,

Children's minds are a precious resource. Yet, too often, inquiring minds (ASK ME! ASK ME! ASK ME!) are transformed by 4th or 5th grade into passive, non-questioning minds (WHY ARE YOU ASKING ME? IS THIS GOING TO BE ON THE TEST?)

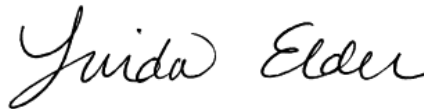
I hope this manual and its companion, The Miniature Guide to Critical Thinking for Children, will become important and useful aids to you in fostering criticality in teaching and learning. We also have available posters and masks of Fairminded Fran, Selfish Sam, and Naïve Nancy, as well as other elementary resources you may find helpful. See the back pages of this book, or our website, for information on these resources

All the ideas and activities in this manual have been tested by teachers like you. As you become increasingly comfortable with critical thinking concepts and tools, your success in teaching your children will grow accordingly.

When I work with elementary students, they enthusiastically participate in the activities suggested in this manual. I have found that children naturally gravitate toward intellectual stimulation (when they feel they can competently do the work being asked of them). Ironically, we tend to under-estimate the capacity of children to engage in critical thinking.

I wish you success in working with this manual. Please give me your feedback on what works best and where you have difficulties. (elder@criticalthinking.org).

Sincerely,



Linda Elder

About the Author

Dr. Linda Elder is an educational psychologist who has taught both psychology and critical thinking at the college level. She is the President of the Foundation for Critical Thinking and the Executive Director of the Center for Critical Thinking. Dr. Elder has a special interest in the relation of thought and emotion, the cognitive and the affective, and has developed an original theory of the stages of critical thinking development. She has coauthored four books on critical thinking, as well as twenty thinkers' guides. She is a dynamic presenter with extensive experience in leading seminars on critical thinking.



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Table of Contents

Introduction	4–7
Thirty-Five Dimensions of Critical Thought Formally Named	8
Thirty-Five Dimensions of Critical Thought Informally Characterized	9–10
Thirty-Five Dimensions of Critical Thought as Explained by Fairminded Fran.	11–14
Thirty-Five Dimensions of Critical Thought as Explained by Naïve Nancy and Selfish Sam	15

Part One: Using Fictional Characters That Help Children Understand Critical Thinking 16

Meet Naïve Nancy, Selfish Sam, and Fairminded Fran.	17
A Critical Reading Format.	17
Role Playing Naïve Nancy, Selfish Sam, Fairminded Fran.	18

Think For Yourself Activities For Children:

TFY #1: Describe Naïve Nancy, Selfish Sam and Fairminded Fran in Your Own Words.	19
TFY #2: Who are You Most Like? Naïve Nancy, Selfish Sam and/or Fairminded Fran.	20

Part Two: Introducing Fair and Unfair Thinking 21

Helping Children be Fair.	22
Introducing Fair/Unfair Thinking.	22–23
Using Journal Entries.	23

Think For Yourself Activities For Children:

TFY #3: When Are You Fair? When Are You Unfair?	24
TFY #4: Thinking About When I Am Fair and Unfair.	25
Journal Entry Format.	26

Part Three: The Intellectual Standards 27

Helping Children Evaluate Thinking	28
Clarity	28
Accuracy	29
Relevance	29–30
Logic	30
Fairness	30

Part Four: The Parts of Thinking	31
Helping Children Analyze Thinking	32
A Checklist for Reasoning.....	33–34
Questions We Can Ask When We Understand the Parts of Thinking	35
Think For Yourself Activities For Children:	
TFY #5: Analyze the Parts of Your Thinking When You Are Solving a Problem.....	36
TFY #6: Analyze the Parts of Thinking Of a Character in a Story	37
TFY #7: Working With <u>Inferences</u>	38–40
TFY #8: Understanding the Difference Between Inferences and Assumptions.....	41–43
TFY #9: Correcting for Faulty <u>Inferences</u>	44–45
TFY #10: Understanding <u>Inferences</u>	46
TFY #11: Faulty <i>Assumptions</i> People Sometimes Make Which Lead to Prejudices.....	47
Helping Children Think Critically About Ideas and Concepts	48
Leading a Socratic Question Dialog Focusing on Key Concepts	49–50
Think For Yourself Activities For Children:	
TFY#12: Understanding the <i>Concept</i> of Greed.....	51–52
TFY#13: Understanding the <i>Concept</i> of Prejudice.....	53–54
TFY#14: Understanding the <i>Concept</i> of Cooperation	55–56
Part Five: The Intellectual Virtues	57
Helping Children Develop Character and Internal Motivation	58
Think For Yourself Activities For Children:	
TFY #15: Understanding Intellectual Perseverance	59
TFY #16: Understanding Intellectual Independence	60

Introduction

Thinking is the Tool We Use to Make Sense of the World

Wherever children go, their thinking goes with them, making their lives better or worse—depending on the quality of their thinking.

Children's thinking often gets them into trouble. It can lead to pain, suffering, and waste. It can lead to their delight or their embarrassment. Children's thinking does not, by nature, function well. It does not naturally do the jobs they need it to do. It can make what is important seem unimportant. It can make the trivial significant. It can lead to superstition, prejudice, and stereotyping. It can lead to cruelty and injustice.

In other words the mind of the child doesn't naturally develop the requisite skills, abilities, and dispositions essential to making good decisions, reasoning through complex problems, getting along with others, or contributing in a positive way in the world.

Developing the mind requires learning to think critically, to systematically analyze and assess our own thinking as well as the thinking of others, to take thinking apart in order to identify problems in it, and then to eliminate the problems we find.

Children Are Capable of Thinking Critically

From a young age, children are capable of learning some of the foundational critical thinking concepts and skills. Though they are largely egocentric, children can nevertheless *begin* to think about how their behavior affects other people. They can *begin* to take thinking apart (to focus, for example, on purpose, questions, information, inferences, in thinking). They can *begin* to apply intellectual standards to their thinking (such as clarity, accuracy, relevance and logicalness). They can begin to develop intellectual virtues (such as intellectual perseverance, intellectual humility, and intellectual integrity).

The Design of the Guide

The Miniature Guide to Critical Thinking for Children introduces children to some of the most basic concepts in critical thinking, making these concepts accessible to them through simplified language. As the teacher, you will need to determine how best to use the guide in your classes. The simplest way to do this is to foster student questioning using the model questions throughout the guide. If you routinely ask these questions of your children and regularly encourage children to ask these questions of you and their classmates, you will be pleased with the results. Thinking is question-driven. When children have no questions, they have no motivation to learn, to inquire, to discover. When teachers regularly focus on the questions in the mini-guide, students learn to formulate questions that improve their learning.

How To Use the Guide

One strategy you might use to bring important questions alive in your mind is to review them each day before class, asking yourself which of them you can foster with that day's lessons, which of them you have focused on the most, which you need to focus on more.

This manual is designed to give you additional ideas for using *The Miniature Guide to Critical Thinking for Children*. It includes the following:

1. *The Miniature Guide to Critical Thinking Concepts and Tools*, a resource that briefly introduces the foundations of critical thinking. It should help you begin to learn the critical thinking

concepts and theory you will need to effectively teach children to improve their thinking and learning. If you are teaching at the middle school level or higher, you may want to have your children use this guide rather than *The Miniature Guide to Critical Thinking for Children* (or both).

2. Suggestions for using *The Miniature Guide to Critical Thinking for Children* and teaching basic critical thinking concepts.
3. "Think for Yourself" activities for children to help them internalize critical thinking ideas. These exercises are indicated by the symbol TFY in the Table of Contents. If your children are at the k–2 level or have reading difficulties, you can use the exercises as idea generators for verbally teaching the concepts. You should use these activities as beginning places for designing your own exercises. Do not think of them as ends in themselves but as vehicles to developing a mind in command of itself.

Take the Long View: There is No Quick-Fix

It is essential to understand critical thinking as a set of skills and dispositions that can only be developed over a long period of time and through daily practice. Therefore you will want to design methods for daily student practice in critical thinking. You should try to infuse the critical thinking concepts into everything you do. For example, one important concept in critical thinking is the intellectual standard of *clarity*. You can focus some lessons on clarity to help children begin to understand the concept of clarity, but most importantly you should help children learn to clarify their thinking, and that of others, *whenever thinking is unclear*. Therefore, whenever you are unclear about what a child is saying, you should ask a question of clarification such as "Can you say that in other words? I'm not clear about what you are saying." Or you can ask a student to ask a question of clarification. You can say, for example, "Mark, looking at page nine in your mini-guide, what question of clarification can you ask Mary based on what she has said?"

In teaching for thinking, you will want to encourage children to use the language of thinking on a regular basis both in the classroom and in their lives outside the classroom. You should encourage them to ask questions like: "What is our purpose right now? What might the consequences be if we decide to do this? What inference did you make in the situation and was there a more logical one you could have made?"

Think of teaching thinking as you would think of coaching. The best coaches design practice so that players learn to think within the logic of the sport. Then they guide practice so that players use their thinking to incrementally improve their performance. The best teachers design practice so that student learn to think within the logic of the content. Then they guide student practice so that students incrementally improve both their ability to think within the content, and their reasoning abilities in general. This manual will give you some ideas for designing this practice.

There is no cookbook approach to teaching one to take command of one's mind. The human mind is far too complicated. There are often significant differences in student knowledge and intellectual skill level. Classes differ according to group dynamics. Therefore, teaching critical thinking requires a spirit of experimentation. It requires that you create and try new ideas, rethinking them as you go, redesigning them as necessary.

As you begin to use these materials in the classroom, you might find that you could better teach for critical thinking with a firmer foundation in it yourself. The best teachers of critical thinking are those who themselves become students of thinking and who recognize the development of critical thinking skills, abilities, and dispositions as a life-long process. For furthering your understanding of critical thinking, I recommend the book: *Critical Thinking: Tools for Taking Charge of Your Learning and Your*

Life, by Richard Paul and Linda Elder. This book covers the key concepts in critical thinking, laying a firm foundation for understanding and teaching the concepts in *The Miniature Guide to Critical Thinking for Children*. If you would like to order this book, obtain other critical thinking resources or find out about workshops and conferences in critical thinking, contact us at (800) 833-3645 or visit our Web site at www.criticalthinking.org.

Understanding the Relationship Between Content and Thinking

It is important to realize that the only way students, at any level, can learn content is to think it through. It is thinking that gives life to content. It is through thinking that we understand content, that we give meaning to content, that we question content, that we bring content into our thinking in order to use it.

In other words, to understand content of any kind is to think in a disciplined way within that content. We understand math when we think mathematically. We understand science when we think scientifically. We understand literature when we can think within the logic of literature. We understand history when we think historically.

To think through content, however, we need skills of mind, the skills of mind assessable through critical thinking. This is illuminated through focusing on the parts of thinking. For example, if we are studying the treatment of American Indians when whites colonized America, we can ask: What was the *purpose* of white immigrants with respect to the Indians? What were they fundamentally trying to accomplish? What did they *assume* about the Indians? What were some *implications* of their treatment of the Indians? By focusing on three of the parts of thinking: purpose, assumptions, implications, students have tools for thinking through the content.

In short, critical thinking is the vehicle for thinking within any and all content. As students master critical thinking, they become more adept at giving meaning to content. As you read through this manual, you will learn multiple ways for helping students take command of content through the skills, abilities and traits of mind.

Critical Thinking is For All Students, Not A Select Group

Teachers sometimes ask whether critical thinking skills, abilities and dispositions are best restricted to “gifted” or “advanced” students. Though students will learn at differing paces and at differing levels of depth, critical thinking can and should be taught to all students, even those with learning problems. All students, for example, can learn to ask questions of clarification. They can all learn to ask questions like, “Can you give me an example?” They can all learn to say, “I don’t really understand what you are saying. Can you say that in other words?”

Moreover, all students *need* the skills of critical thinking. All students need to develop questioning skills. All students need to learn how to think through what they are learning so that content becomes meaningful and useful to them as thinkers. All students need to think about the importance of fairness in thinking, and to question whether they are being fair when others’ interests are at stake.

Students with learning difficulties (without skills of critical thought) are especially at risk for being manipulated. When they get confused, for example, instead of asking questions of clarification, they often hide their confusion so as not appear “stupid.” These students need to learn that they are capable of developing as thinkers. They need to learn to have confidence in their ability to learn. Critical thinking provides the foundational skills for them to do so.

In short, it is a mistake to preserve the teaching of critical thinking to students considered more advanced than the typical student. It is a mistake to underestimate the capability of the student who may have to struggle more than others to learn ideas and concepts. Though some students may learn faster in some situations, every student needs the tools of mind that critical thinking fosters.

Critical Thinking Helps Us Achieve Academic Standards

On the next few pages you will find a list of thirty-five dimensions of critical thought. These dimensions are skills, abilities, and dispositions the teacher of critical thinking regularly fosters in the classroom. By focusing on the concepts in *The Miniature Guide to Critical Thinking for Children* you will begin to foster these dimensions of thought in your children. They are presented in three sections: Formally Named, Informally Characterized, and Explained in the words of Fairminded Fran.

You should be able to relate the thirty-five dimensions of critical thought to the standards you are expected to teach to within your school, system and/or state. In other words, critical thought is presupposed in teaching to any and all academic standards. Take, for example, the cognitive dimension “clarifying issues, conclusions or beliefs.” Without this macroskill in thinking, children cannot read, write, listen or speak as an educated person. They cannot clearly state what another person is saying. They cannot clearly comprehend what they are reading. They cannot clarify either verbally or in writing even what they believe.

Conclusion

All of the ideas in this manual have been used in demonstration classes with young children. As you use them, and modify them, I would like to get feedback from you on how these strategies have worked. Additionally, and most importantly, I would like to learn about new classroom strategies you develop in using this manual and *The Miniature Guide to Critical Thinking for Children*. As you know, teachers need concrete suggestions for teaching. This is especially true when they are teaching abstract concepts, as are all concepts in critical thinking. Examples you send me could be incorporated in future editions of this manual.

As you teach for the skills and dispositions of critical thinking, remember that the human mind, though naturally unskilled and undisciplined, is nevertheless capable of developing in multiple directions. Most children never reach their full potential as thinkers because they are never taught the importance of high quality thinking for living a productive life. They therefore never engage in the kind of practice it takes to regularly think well. As you use *The Miniature Guide to Critical Thinking for Children* on a daily basis in your classes, you are giving your children a beginning place for this essential process.

35 Dimensions of Critical Thought

(Formally Named)

A. Affective Dimensions

- thinking independently
- developing insight into egocentricity or sociocentricity exercising fairmindedness
- exploring thoughts underlying feelings and feelings underlying thought
- developing intellectual humility and suspending judgment
- developing intellectual courage
- developing intellectual good faith or integrity
- developing intellectual perseverance
- developing confidence in reason

B. Cognitive Dimensions—Macro-Abilities

- refining generalizations and avoiding oversimplifications
- comparing analogous situations: transferring insights to new contexts
- developing one's perspective: creating or exploring beliefs, arguments, or theories
- clarifying issues, conclusions, or beliefs
- clarifying and analyzing the meanings of words or phrases
- developing criteria for evaluation: clarifying values and standards
- evaluating the credibility of sources of information
- questioning deeply: raising and pursuing root or significant questions analyzing or evaluating arguments, interpretations, beliefs, or theories generating or assessing solutions
- analyzing or evaluating actions or policies
- reading critically: clarifying or critiquing texts
- listening critically: the art of silent dialogue
- making interdisciplinary connections
- practicing Socratic discussion: clarifying and questioning beliefs, theories, or perspectives
- reasoning dialogically: comparing perspectives, interpretations, or theories
- reasoning dialectically: evaluating perspectives, interpretations, or theories

C. Cognitive Dimensions—Micro-Skills

- comparing and contrasting ideals with actual practice
- thinking precisely about thinking: using critical vocabulary
- noting significant similarities and differences
- examining or evaluating assumptions
- distinguishing relevant from irrelevant facts
- making plausible inferences, predictions, or interpretations
- giving reasons and evaluating evidence and alleged facts
- recognizing contradictions
- exploring implications and consequences

35 Dimensions of Critical Thought

(Informally Characterized)

A. We use teaching strategies that encourage our children to begin to develop the attitudes and values essential to critical thinking. As a result:

- Our children begin to think for themselves.
- Our children begin to notice when they are seeing things narrowly.
- Our children begin to see when they are conforming to their peer group.
- Our children begin to appreciate the point of view of others.
- Our children begin to think about why they feel as they do.
- Our children begin to notice when they really know something and when they merely believe without good reasons.
- Our children begin to question what their peer group says and to speak up for what they believe.
- Our children begin to live up to what they expect of others.
- Our children begin to persevere in their tasks even when the work is difficult.
- Our children begin to discover how powerful their minds are, how much they can figure out by thinking.

B. We use teaching strategies that encourage our children to begin to develop large scale critical thinking skills and abilities. As a result:

- Our children begin to be more precise in what they say and to notice complexity.
- Our children begin to apply what they are learning to diverse situations.
- Our children begin to discover and develop their own points of view.
- Our children begin to clarify problems and questions.
- Our children begin to clarify what words mean.
- Our children begin to discover standards for measuring or judging things.
- Our children begin to discover when it makes sense to believe what they hear.
- Our children begin to ask deeper questions.
- Our children begin to analyze what they say and do.
- Our children begin to develop solutions to their problems.
- Our children begin to evaluate rules, policies, and behavior.
- Our children begin to learn how to question as they read.
- Our children begin to listen attentively and to ask questions that clarify what is said.
- Our children begin to make connections between what they are learning in different subjects.
- Our children begin to discover and ask different kinds of questions.
- Our children begin to learn from working and talking with each other.
- Our children begin to learn how to discuss differences in a more reasoned way.

C. We use teaching strategies that encourage our children to begin to develop some of the fine-grained critical thinking skills. As a result:

- Our children begin to distinguish ideals from actual practice.
- Our children begin to use critical thinking terms in their work and discussion.
- Our children begin to notice significant similarities and differences and use comparison to learn.
- Our children begin to examine and evaluate what they usually assume.
- Our children begin to figure out what facts they need to consider and notice when they are distracted by facts that have nothing to do with it.
- Our children begin to fill in missing pieces, notice what things mean beyond what they say, make reasonable predictions.
- Our children begin to give reasons for their beliefs and learn how to judge details, evidence, and facts.
- Our children begin to notice when two statements or beliefs contradict each other.
- Our children begin to explore implications and consequences.

35 Dimensions of Critical Thought

(As They Might Be Explained by Fairminded Fran)



In *The Miniature Guide to Critical Thinking for Children* three fictional characters are introduced whose ways of thinking illustrate the distinction between uncritical thinking (Naïve Nancy), weak sense critical thinking (Selfish Sam), and strong sense critical thinking (Fairminded Fran). In this section the 35 dimensions of critical thinking are presented as they might be expressed by Fairminded Fran. As teachers, our goal is for students to begin to think in these ways as we foster their thinking and encourage them to become not only skilled but fairminded as well.

A. Affective Dimensions

Thinking independently: "I try to do my own thinking, to figure things out for myself. It's good to listen to others to find out what they're thinking, but you must always use your own thinking to decide who to believe and what to do."

Developing insight into egocentricity or sociocentricity: "If I don't watch myself, I pay too much attention to what I want, and go along too quickly with what my friends say. I have to remember that everyone usually puts what they want first and believes what their friends believe. Just because I or my friends think something doesn't make it so."

Exercising fairmindedness: "Whenever I disagree with someone I should try to look at things from their point of view. Maybe if I see why someone disagrees with me, I will find a reason to agree with at least part of what they are saying."

Exploring thoughts underlying feelings and feelings underlying thoughts: "When I get angry or sad, I should think about why. Maybe I could change the way I am looking at things and then not be so angry or so sad after all."

Developing intellectual humility and suspending judgment: "I shouldn't say things that I don't really know are true. Lots of things that people say aren't true. Even TV and books are sometimes wrong. I should always be willing to ask 'How do *you* know that? How do *I* know that?'"

Developing intellectual courage: "I should be ready to speak up for what I think is right, even if it is not popular with my friends or the kids I am with. I should be courteous but I should not be afraid to think differently."

Developing intellectual good faith or integrity: "I should be careful to practice what I preach. It is no good saying I believe in something if I don't really act on it."

Developing intellectual perseverance: “It isn’t always easy to solve problems. Sometimes you have to think for a long, long time to do it. Even though my mind gets tired, I must not give up too easily.”

Developing confidence in reason: “I know my mind can figure things out, if I am willing to think logically, look for evidence, and accept only good reasons for things.”

B. Cognitive Dimensions — Macro-Abilities

Refining generalizations and avoiding oversimplifications: “It’s wrong to say ‘everyone’ when you only mean ‘most’, or ‘no one’ when you only mean ‘just a few’. It’s nice to make things simple, but not so simple that they’re not true.”

Comparing analogous situations: transferring insights to new contexts: “Lots of things are like other things. Being lost in the city may be in some ways like being lost in your life. Maybe in both cases you need a map!”

Developing one’s perspective: creating or exploring beliefs, arguments, or theories: “It takes time to figure out what you really think, sometimes years! I should be ready to listen to what other people think and why. Then my own ideas can grow and grow.”

Clarifying issues, conclusions, or beliefs: “Often what people say is not as clear as they think. You should always be ready to say ‘What do you mean?’ or ‘Could you explain that to me?’”

Clarifying and analyzing the meanings of words or phrases: “Words are funny. Sometimes it sounds like you know them when you don’t. Yesterday when my teacher asked me what ‘democracy’ meant, I thought I knew, but I found I couldn’t explain it.”

Developing criteria for evaluation: clarifying values and standards: “If we are going to judge something as good or bad, we need a way to do it. But often we decide that something is good or bad and really don’t know why we said so. People are funny!”

Evaluating the credibility of sources of information: “We learn lots of things from other people, and from books and TV. But sometimes what we learn isn’t so. We need to question what we hear people say and what we see on TV. Do they really know? Maybe and maybe not!”

Questioning deeply: raising and pursuing root or significant questions: “My teacher often asks us questions that sound easy but aren’t. The other day she asked us what a country is and it took us a lot of time to figure it out. I guess sometimes simple things aren’t so simple.”

Analyzing or evaluating arguments, interpretations, beliefs, or theories: “The other day my brother and I argued about who should do the dishes. Finally we decided that we should do them together.”

Generating or assessing solutions: “It’s interesting to try to solve problems. Sometimes there are even different ways to get the same job done.”

Analyzing or evaluating actions or policies: “I get mad when I am not allowed to do what my brother is allowed to do. My parents say it is because he is older than me, but sometimes I am not allowed to do what he did when he was my age. That’s not fair!”

Reading critically: clarifying or critiquing texts: “When I read I try to figure out exactly what is being said. Reading is like being a detective. You have to ask questions and look carefully for clues.”

Listening critically: the art of silent dialogue: “When I listen to someone, I ask myself whether I could repeat what they are saying and whether I could explain it to someone else. Sometimes I ask myself, ‘Did anything like this ever happen to me?’ This helps me see if I’m listening carefully.”

Making interdisciplinary connections: “I am finding out how I can use what I learn in one subject while I’m working on another. Lots of ideas work in different places.”

Practicing Socratic discussion: clarifying and questioning beliefs, theories, or perspectives: “I am finding out that you learn a lot more if you ask a lot of questions. I am also learning that there are different kinds of questions and that you can find out different things by asking them.”

Reasoning dialogically: comparing perspectives, interpretations, or theories: “It helps to talk to other kids when you are trying to learn. Sometimes they have good ideas, and sometimes it helps you to try to explain things to the other kids.”

Reasoning dialectically: evaluating perspectives, interpretations, or theories: “It even helps to talk to other kids who think differently from you. Sometimes they know things you don’t and sometimes you find out that you need to think more before you make up your mind.”

C. Cognitive Dimensions— Micro-Skills

Comparing and contrasting ideals with actual practice: “Lots of things we say we believe in, but then we don’t do it. We say that everyone is equal but we don’t give them an equal chance. We need to fix things so that we mean what we say and say what we mean.”

Thinking precisely about thinking: using critical vocabulary: “There are special words you can learn to help you talk about what goes on in your head. For example, inferences happen when you learn some things and decide other things because of that. Assumptions happen when you believe things without thinking about them. I try to watch my inferences and assumptions.”

Noting significant similarities and differences: “Sometimes it is important to see how alike things are that are different. Sometimes it is important to see how different things are that are alike. I always try now to see how things are both alike and different.”

Examining or evaluating assumptions: “To do a good job of thinking you have to pay attention to what you believe without thinking. Sometimes we go along with stuff without thinking about it. When you do, watch out! You probably missed something important!”

Distinguishing relevant from irrelevant facts: “It may be true but is it related? We often forget to ask this. To figure things out you must stick to the point and not get other things mixed in.”

Making plausible inferences, predictions, or interpretations: “I sometimes decide things that aren’t true. Then I have to stop and think about why I did that. I try to be more careful next time. Things often seem to be one way at the moment and then turn out to be different.”

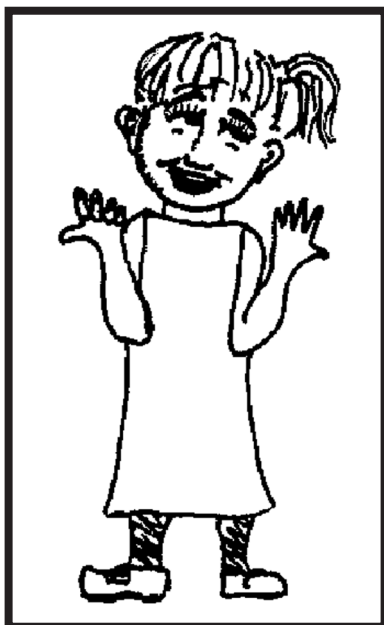
Giving reasons and evaluating evidence and alleged facts: “Good detectives and police look carefully for evidence so they can find out who really did it. We need to find evidence too, when we read and write and talk. We should try to find evidence before we decide who is right and wrong.”

Recognizing contradictions: “Sometimes kids say one thing today and another thing tomorrow. Sometimes parents and teachers do, too. That’s confusing. You should decide what you really mean and then stick to it and not go back and forth and back and forth.”

Exploring implications and consequences: “When things happen, other things happen because of them. If you say something mean to someone, they may feel bad for a long, long time. It’s important to see that, otherwise we won’t notice all the things we are making happen.”

35 Dimensions of Critical Thought

(As They Might Be Explained by Naïve Nancy and Selfish Sam)



How Would Naïve Nancy and Selfish Sam Understand the Dimensions?

It should be clear that Naïve Nancy and Selfish Sam would give different explanations of the 35 dimensions of critical thought. Nancy would deceive herself into thinking that she was thinking critically when she was not. Furthermore, most of her understandings would be so abstract that she would not be able to apply the principles to her experience. Selfish Sam would emphasize the usefulness of the various dimensions of critical thinking for getting what he wants, for protecting himself, and for using others to his advantage. However, he would show little interest in the principles that focus on fairmindedness, intellectual humility, and integrity.

Part One

Using Fictional Characters to Help Children Understand Critical Thinking

Meet Naïve Nancy, Selfish Sam, and Fairminded Fran

In *The Miniature Guide to Critical Thinking for Children* three fictional characters are introduced. By reading about and role-playing these characters children begin to think seriously about the concepts of fairness, selfishness, intellectual naïvety and laziness, as well as disciplined thinking. You may want to get posters and masks of these three characters to use in your classroom. You can see them on our Web site at www.criticalthinking.org.

When children have been introduced to the characters, keep them alive in their minds by asking questions like, "Are you acting more like Selfish Sam or like Fairminded Fran (right now)? Which would you most like to be like?"

In this section, you will find additional ideas for focusing on these characters as a vehicle for helping children think about their thinking, become aware of their self-centeredness, or lack of motivation to learn, and become more fair and perseverant as a student.

A Critical Reading Format

Critical Reading is comprised of an important set of skills aimed at comprehension. You can use the following structure on a daily basis in teaching children to read for understanding.

The basic idea is that children will read aloud in pairs taking turns reading and saying in their own words what they have read. Here is the basic format:

- 1) Place children in pairs so that at least one child can decipher the words fairly well (though you may have to help with some words).
- 2) One child will read the first sentence aloud.
- 3) This will be followed by the second child stating in her/his own words what the sentence means.
- 4) If the first child disagrees with the meaning the second child gave it, the two children can discuss the meaning until they reach agreement (or, again, they may need help from the teacher).
- 5) Then the second child reads the next sentence.
- 6) The other child then gives the sentence meaning.
- 7) Children go back and forth in this way taking turns reading and comprehending, then discussing meanings if necessary until the passage is complete.

This strategy can be used to introduce children to Naïve Nancy, Selfish Sam, and Fairminded Fran. Have children read pages 3–5 in their mini-guides using the critical reading format.

Then have them role-play the characters as described in this section and complete the (TFY) Think for Yourself activities.

In general, the following format can be used in virtually any reading assignments so that children are learning to give meaning to what they are reading. The format is:

1. Critical reading activity in pairs (described above).
2. A written assignment wherein children write out their understanding of at least some part of what they read in their own words.

Role Playing Naïve Nancy, Selfish Sam, Fairminded Fran

As I have said, the characters introduced in *The Miniature Guide to Critical Thinking for Children* (Naïve Nancy, Selfish Sam, Fairminded Fran) can be used in a variety of ways to help children begin to take command of their thinking. Role-playing these characters is one way children can actively bring important critical thinking concepts into their thinking. For the role-play activities you may want to get one or more sets of our masks of Fairminded Fran, Selfish Sam and Naïve Nancy.

Once they have read about the characters, you can have children take turns in groups of three role-playing the three characters. At first they should simply give voice to the characters, with a focus on accurate representation. You might need to model this for them. After they have each practiced being each character, call on some children individually to come to the front of the class and ask her/him to role play one of the characters. After each child role-plays the character for the class, ask the class whether they think the role-playing child accurately represented the character they were depicting, and, if not, to explain why not. Accuracy, then, is the key intellectual standard you will be looking for in this activity.

Here is a follow-up activity to this one:

1. Assign children to groups of three.
2. Each child is assigned to be either Fran, Sam, or Nancy.
3. Give children the scenarios below and have them act out how each character might act in each scenario.
4. After each scenario, have them switch characters.

Scenarios:

1. There are three pieces of delicious chocolate cake and enough ice cream for three scoops. Sam says he should get two pieces and two scoops since he is bigger, and Fran and Nancy can split the last piece and one of the scoops. How do you think each person would act in the situation? Act it out, with each person playing one of the characters.
2. Father brings home a cute and cuddly puppy. All three children want to play with it. Father tells them to come up with some rules about playing with the puppy. Each character says what the rules should be and why.
3. There are two playgrounds, one big and the other small. The three characters are at school. The principal says that since the boys like to play together and the girls like to play together they should decide who gets the big playground and who gets the small one.
4. The class is divided into two basketball teams for a game. The teacher puts the three characters on one team and tells them that every team must make up some plays so they are all working together. Figure out what you are going to do.
5. The three go to the beach and they have a pail, shovel and boogie board. They all want to play with the boogie board. What suggestion does each make for what should happen?
6. The children's puppy needs to be taken for a walk every day. No one wants to take it. What does each one think should happen?

Using these ideas as models, come up with additional scenarios to have children act out.

Think for Yourself (#1)
**Describe Naïve Nancy, Selfish Sam, and
Fairminded Fran in Your Own Words**

Read about the three characters in your mini-guide: Naïve Nancy, Selfish Sam, and Fairminded Fran. Complete these statements:

In my own words, I would describe Naïve Nancy in the following way:

I would describe Selfish Sam in the following way:

I would describe Fairminded Fran in the following way:

Think for Yourself (#2)**Who are You Most Like?****Naïve Nancy, Selfish Sam, and/or Fairminded Fran**

Think about which of these characters you act like most of the time. Then complete these statements:

Of these three characters, I act most like the following character:

The ways in which I act like this character are: _____.

I think that I should/should not act in these ways because:

Of the three characters, I want to be most like: _____.

I want to be like this character because:

Part Two

Introducing Fair and Unfair Thinking

Helping Children Be Fair

One of the great difficulties for humans is to be fair to others when they may have to give something up in the process. In many situations it is not easy, for children or adults, to be fair. But when children begin to work with the concepts of *fair* and *unfair* at a young age, to analyze their behavior in terms of what is fair in real situations, they have a better chance of developing as fair persons.

Therefore one of the important distinctions we want children to learn early in the educational process is the distinction between fair and unfair thinking. We introduce this concept through the character Fairminded Fran (in opposition to Selfish Sam). On the next few pages you will find activities you can use with children to help them further develop their understanding of this distinction.

Think for Yourself activity #3 can be used numerous times throughout the year to help students analyze their behavior for fairness.

Introducing Fair/Unfair Thinking

To introduce children to the concept of fairness, lead a Socratic dialog focusing on the following types of questions:

- What does it mean to be fair?
- What does it mean to be unfair?
- Do you think others should be fair to you? Why should they?
- Do you think you should be fair to others? Why should you?
- What can you do if you think someone is being unfair to you?
- If someone makes fun of you, are they being fair?
- If you make fun of someone else, are you being fair?
- What would you do if there were only one cupcake left and both you and your sibling wanted it? How could you be fair in the situation?
- What would you do if you wanted to ride in the front seat of the car and so did your friend? How could you be fair in the situation?
- What would you do if someone wanted to play with the same toy as you? How could you be fair in the situation?
- What would you do if someone were hitting someone else on the playground? How could you be fair in the situation?
- What would you do if someone didn't have any markers and wanted to borrow yours? How could you be fair in the situation?
- What would you do if someone had extra pencils and markers — would you take them without asking? How could you be fair in the situation?

A concept related to fairness is the concept of empathy. To have empathy is to be able to imagine what other people are thinking and feeling and to take into account the thoughts and feelings of relevant others before you act. People cannot be cruel or unjust to others when they empathize with them. By implication, then, when children actively empathize with others, they are more likely to be fair. To introduce the concept of empathy to children you might ask questions like these:

- What does it mean to be empathetic?
- Have you ever imagined what it was like to feel what someone else was feeling?
- Or to think their thoughts?
- Can you think of a situation where it would be good, or useful, to be able to do this?
- Have you ever been left out of a game?
- Do you think those you wouldn't let you play — or didn't invite you to play — were able to think from your point of view? Why, why not?
- Have you ever left someone out of a game?
- If so, how do you think that person felt?
- Have you ever experienced problems or felt bad because someone didn't understand you?
- Have you ever done something that you thought was reasonable, but which you got into "trouble" for? How did you feel in the situation? Do you think the person you got into trouble with was able to empathize with you?
- Is it important to be able to empathize? Why, why not?
- What would be different in our school if all children were good at empathizing?
- How can we help improve other children's ability to empathize?
- How can we help our brothers/sisters learn to empathize better?

In leading a Socratic dialog with questions such as these as the focus, consider them guides for your thinking. Add to them, or subtract from them, as you go. Modify them according to student answers. Encourage children to elaborate their answers wherever you find fertile ground. Think of questioning as an art, not a science. There are many directions in which you can go and still be productive.

Using Journal Entries

Think For Yourself #4 in this section asks students to think critically about problems in their behavior. It can be used as a format for their regular journal writing in class. Though I suggest that you use it in this broad way, it is included in this section because many of the problems in our behavior relate to our being unfair.

In addition to using this format for regular journal writing, you might ask students to do a journal entry using this format after specific incidents occur resulting from unfair thinking. This requires students to think reflectively about the way they behaved in the situation.

Think for Yourself (#3)

When Are You Fair? When Are You Unfair?

Did you know that every person is sometimes fair and sometimes unfair?

Sometimes people are fair to others. Sometimes they are unfair to others.

Each of us can be a fair thinker most of the time. We are fair to others when we are kind, caring, respectful, and considerate.

But each of us is also sometimes unfair. We are unfair to others when we are selfish, unkind, and rude. We are also unfair to others when we trick them into doing things they shouldn't do.

On two separate sheets of paper draw a picture which shows each of these:

- 1) You being fair to someone else, and
- 2) You being unfair someone else.

Use markers or crayons if you want to make your pictures colorful. But remember that it doesn't matter if you are good at drawing. What is more important is that you do your best thinking about when you have been fair and unfair. Then draw the pictures as you see them in your mind. Draw stick figures if you want.

If you aren't sure what to draw, here are some ideas that might help. But remember that these are only ideas. What is important is that you do your own thinking to figure out how you are sometimes fair and sometimes unfair.

Ideas for figuring out when you were fair to others:

- Think of times when you helped someone, maybe someone in your family or a friend.
- Think of times when you helped the teacher in class.
- Think of a time when you shared.

Ideas for figuring out when you were unfair to others:

- Think of a time when you hurt someone.
- Think of a time when you left someone out of a game and that person got his or her feelings hurt.
- Think of a time when you were rude.
- Think of a time when you were disrespectful to someone like your parent or teacher.
- Think of a time when you agreed to do something mean or rude to a classmate because other kids were doing it (even though you knew it was wrong).

Once you have finished your drawings, write out on each paper what the picture shows.

Use this format:

1. My purpose in this situation was...
2. One consequence of my behavior was...

If you do this once a week, you can start to become more like Fairminded Fran.

Think for Yourself (#4)**Thinking About When I Am Fair and Unfair**

Fair thinkers want to be fair to others. But they realize this isn't always easy.

Here are some ways that people are unfair:

- 1) Being cruel
- 2) Being disrespectful
- 3) Being inconsiderate
- 4) Being rude
- 5) Being unkind
- 6) Being selfish
- 7) Being mean

Fair thinkers try hard not to be unfair to others. They think about their behavior and their thinking a lot. One way they think about their behavior is in writing in a journal.

In the journal, they write about problems in their behavior and then they try to figure out why they did what they did. In other words they try to figure out what they were thinking that led them to unfair behavior.

On the next page is a journal sheet. You can make copies of it and put your copies in a notebook. Then you can write about your thinking and behavior using these sheets. This will help you write good journal entries about your thinking and behavior.

Journal Entry Focusing on Problems In My Thinking and Behavior

The situation that I need to think about was as follows:

In the situation, I did the following:

In the situation, I thought:

There was a problem with my behavior because:

In the future I can behave in a more appropriate way by:

Part Three

The Intellectual Standards

Helping Children Evaluate Thinking

Intellectual standards are general standards by which thinking is judged. Read the relevant pages in *The Miniature Guide to Critical Thinking* for an overview of the intellectual standards. Those included in *The Miniature Guide to Critical Thinking for Children* are among the most significant and each of them can be introduced in elementary school.

This section contains suggestions for introducing and teaching these standards, but remember that the best way to teach them is to have children asking questions focused on the standards every day in class. These questions can be found in *The Miniature Guide to Critical Thinking for Children*. Require children to actually say the intellectual standards words—accuracy, clarity, relevance, etc.—as they apply them to thinking through the content and in class situations.

Clarity

Clarity is a gateway standard, which means that if we are unclear about what someone is saying, what we are reading, or even what we are thinking, we cannot further assess it. If we are not clear about something, we can't determine whether it is relevant, significant, or fair. We can't assess it for accuracy. For example, it doesn't make sense to say, "I don't know what you are saying, but I know it is wrong."

Clarity is an important intellectual standard that relates to learning all content. If children are not clear about what they are learning, they haven't learned it. If they can't state what they have learned in their own words, they haven't learned it. If they can't elaborate what they have learned in their own words, they haven't learned it. If they can't give an example of what they have learned, they haven't learned it.

Here are some simple classroom strategies that can be used to foster clarity in children's thinking:

1. Since children are often unclear about what they are thinking, and therefore about what they are saying, you can help them clarify their thinking by routinely asking questions like those on page 9 in *The Miniature Guide to Critical Thinking for Children*. You can say, for example, "I'm not clear about what you are saying. Could you say that in other words? Could you elaborate? Could you give me an example?"
2. Whenever you want to assess understanding of content, or any idea you have been teaching, have children clarify their thinking using the following format:
 - State their understanding.
 - Elaborate their understanding.
 - Exemplify their understanding
 - Illustrate their understanding
(with a picture, story, metaphor, analogy)

This format can be used either verbally or in writing. It can be used when focusing on a key concept in a story or the main lesson an author is trying to teach. It can be used in writing summaries of stories children have read or chapter lessons. It can be used every day at the end of every lesson to help children bring important ideas into their thinking.

3. One of the most powerful structures for helping children both clarify thinking, and actively participate in class discussions, is to routinely call on them to say in

their own words what another person has said. This should be done on a daily basis so that children consistently practice clarifying what other children are saying. To do this you can even use 3 by 5 cards with the name of one child on each card. Flip through the cards, calling on children randomly. Avoid the tendency to call only on children who are raising their hands for all children need to be actively engaged.

Call on children in this way: “John, can you tell me what Susan just said?” Then, “Susan, is that what you said? Did John capture the essence of what you said?” If John didn’t, ask Susan to repeat what she said; then again ask John to say in his own words what Susan said. This strategy can be used even with very young children. (Incidentally, you might notice that young children are looking for their exact words in someone else’s summary of what they said. You will need to remind them that the person doesn’t have to say exactly what they said, but use his/her own words in stating the basic idea of what they said.)

Accuracy

Whenever children are asserting a “truth” of any kind, the standard of accuracy needs to be applied. When they are using information in a report, they will need to make sure their sources are credible and likely to provide accurate information.

When they are asserting a fact that seems to you questionable, you can ask, “How do you know that is accurate? How could you check to see?”

Children make many statements that are untrue. They will often believe what their friends tell them when instead they should question what they are hearing. Encourage them to ask, on a routine basis, the questions on page 10 of *The Miniature Guide to Critical Thinking for Children*.

Relevance

On the first or second day of class, you can introduce the standard of relevance, even to kindergarten children. Here is a simple way to do this. First, give children a basic definition of relevance by saying something is relevant when it helps us figure something out, when it relates to the problem we are trying to solve or the question we are trying to answer. Refer to the page on relevance in *The Miniature Guide to Critical Thinking for Children*. Tell them that good thinkers always make sure their thinking is relevant. One way you are going to help them use relevance in their thinking is to make sure that every time they raise their hand to answer a question, you will expect their response to be relevant to the question. If it is not or if you don’t see how it is, you will ask them: How is what you are saying relevant to what we are talking about or the problem we are trying to solve? Whenever you are engaging students in group dialog, you should be able to use this standard (since children often say things that are irrelevant to the discussion).

Your ultimate goal is for children to learn to ask questions of relevance themselves in situations where someone says something irrelevant, or they recognize that their own thinking is irrelevant. As you model asking questions of relevance, and encourage children to ask them during classroom discussions, they will begin to internalize them and will eventually think to ask them on their own (when relevance is relevant).

Logic

In the same way that children need to question whether something they are hearing or reading is accurate, so do they need to question its logicalness. We want them to have confidence in their ability to figure out whether something makes sense. Though we want them to come to us for help in figuring things out, more importantly, we want them to learn to think things through on their own, to question the logicalness of what people say and write.

Fairness

I focused in the previous section (Part Two) on fair and unfair thinking. Let me just reiterate that learning to be a fair thinker is one of the great challenges of living a human life. Therefore, we should not be surprised when children are unfair, or when they see the world in largely self-serving terms. Egocentrism is natural in children (and adults). Yet, we can begin to foster the idea of fairness in children’s thinking almost as soon as they begin to talk. We can begin to foster these kinds of questions in their thinking: “Am I being fair right now? Am I considering the feelings of my classmate? Or am I being selfish?”

Part Four

The Parts of Thinking

Helping Children Analyze Thinking

One set of concepts our children need to learn in order to take thinking apart (i.e., analyze it) is the parts of thinking, or elements of reasoning. Pages 14–22 in *The Miniature Guide to Critical Thinking for Children* focus on these elements. There are a number of pages in *The Miniature Guide to Critical Thinking Concepts and Tools* that introduce the elements of reasoning. Before you begin to teach the elements, you should read and thoroughly understand these pages. If you are confused, you will confuse your children.

In teaching, you can focus on one of these elements at a time or you can focus on them as a whole. Until children reach 4–6 grades, it is best to focus on them individually.

As with the intellectual standards, one of the best ways for teaching the parts of thinking is to foster the questions in *The Miniature Guide to Critical Thinking for Children*.

The following pages contain further ideas for teaching them.

Again, you can gain deeper understanding of the elements of reasoning by getting the book recommended in the introduction to this manual: *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life*. The elements of reasoning are at once simple and complex. Their simplicity is illustrated in the miniature guide for children. As you study the elements more deeply, you begin to appreciate their complexities and interrelationships. And as you understand them more deeply, you can more effectively teach them to children. This recommended book will help you learn the elements at a deeper level.

Remember that the following ideas are only beginning places for teaching the parts of thinking. They are sample ideas created through working with children in the classroom. They can be elaborated and modified in multiple directions.

A Checklist for Reasoning

1) All reasoning has a purpose.

- Take time to state your purpose **clearly**.
- Distinguish your purpose from other purposes.
- Check periodically to be sure you are sticking to your purpose.
- Choose purposes you can actually achieve.
- Recognize when other people have a different purpose from your purpose.

2) All reasoning is an attempt to figure something out, to settle some question or solve some problem.

- Take time to **clearly** and *precisely* state the question you are trying to answer.
- Express the question in several ways to **clarify** its meaning.
- Break a complex question into sub-questions.
- Identify whether the question has one right answer, is a matter of mere personal opinion, or requires reasoned judgement.

3) All reasoning is based on assumptions.

- Figure out what you are taking for granted. In other words, **clarify** your assumptions.
- Determine whether what you are taking for granted is **justified**.

4) All reasoning is done from some point of view.

- Figure out what you are looking at and how you are seeing it. In other words, fill in these blanks: "I am looking at _____. And I am seeing it in the following way _____."
- Figure out other **relevant** viewpoints, or other ways of looking at the same thing you are looking at.
- Figure out the strengths and weaknesses of your way of looking at the situation.
- Figure out the strengths and weaknesses of other ways of looking at the same situation.
- Try to be fairminded in evaluating all points of view.

A Checklist for Reasoning (Continued)

5) All reasoning is based on information and evidence.

- Gather information that is **relevant** to your question.
- Make sure all your information is **accurate**.
- Make sure you have **sufficient** information to answer the question.
- Search for information that opposes your position as well as information that supports it.

6) All reasoning is expressed through, and shaped, by concepts and ideas.

- Identify key ideas and explain them **clearly**.
- Consider different concepts, or different ways of defining concepts.
- Make sure you are using concepts with care and **precision**.
- Use concepts the way educated persons would use them.
- Notice when people misuse concepts in order to get you to do something they want you to do.

7) All reasoning contains inferences, interpretations, and conclusions.

- Make sure your inferences are **logical** in the situation.
- Figure out whether there are other possible inferences you might make.
- Figure out the assumptions that are leading to your inferences.
- Make sure you are **accurately** or **logically** interpreting the situation.

8) All reasoning leads somewhere, or has implications and consequences.

- Think through the **logical** implications of your decisions.
- Search for negative as well as positive implications.
- Consider all possible consequences.

Questions We Can Ask When We Understand the Parts of Thinking

Foster the following questions in your classroom on a daily basis. Notice that in *The Miniature Guide to Critical Thinking for Children* the "I" form of questioning, or first person, is used. Many of the following questions are in the second or third person. Study them in order to make them intuitive in your own mind so that you can easily ask them and/or foster them when they are relevant. Keep them in front of you during class as necessary to internalize them.

For Purpose:

What is your purpose in doing what you are doing?
 What is the purpose of this assignment?
 What is the purpose of the main character in this story?
 What is my purpose as the teacher?
 What is your sister's purpose? Your brother's? Your parent's?
 Is there something wrong with your purpose?

For Question:

What question are you trying to answer?
 Is your question clear?
 Should you be asking a different question?

For Information:

What information do you need in order to answer this question?
 Do you need to gather more information?
 Is your information relevant to your purpose?
 Is your information accurate?

For Inference:

What conclusions are you coming to?
 Are there other conclusions you should consider?
 Was, or is, your inference logical?

For Implication:

If you decide to do "X," what things might happen?
 If you decide not to do "X," what things might happen?

For Assumption:

What are you taking for granted?
 Are you assuming something you shouldn't?
 What assumption is leading to this conclusion?

For Concept:

What is the main idea in this story?
 What idea comes into your mind when you hear the word _____?
 What idea is this character using in his or her thinking? Is there a problem with this idea?

For Point of View:

How are you looking at this situation?
 What are you looking at? And how are you seeing it?
 Is there another reasonable way to look at the situation? Or is your view the only reasonable view?

Think for Yourself (#5)
Analyze the Parts of Your Thinking
When You Are Solving a Problem

Figure out what the problem is and then answer the following questions:

1. The main problem is...
2. The key question at issue is...
3. The purpose of thinking through this problem is...
4. The most important information we need to gather to answer this question is...
5. The main concepts or ideas we need to use in our thinking as we try to solve this problem is...
6. Our main assumptions (the things we are taking for granted) are...
7. If we solve this problem, the implications are...
8. If we fail to solve this problem, the implications are...
9. Our point of view is: We are looking at _____ and we are seeing it in the following way...

Think for Yourself (#6)**Analyze the Parts of Thinking
Of a Character in a Story**

Complete the following statements about a character in the story entitled _____.

1. The most important problem the main character faces in the story is...
2. The main purpose of the main character in the story is...
3. The most important information the main character uses in his or her thinking in the story is...
4. The main concepts or ideas the main character uses in his or her thinking are...
5. The main assumptions the main character makes (the things he or she takes for granted) are...
6. The main conclusions (or inferences) the character comes to is...
7. The main consequences of the main character's behavior are...
8. The point of view of the main character: She or he was looking at _____ and seeing it _____.

Think for Yourself (#7)

Working With Inferences

Read each of the situations below. Then write one thing you might infer (or conclude) in the situation. Then write what might be happening (instead) in the situation, rather than what you inferred.

1. One of my friends walks by without saying hello to me.
I might infer

But what might be really happening (in fact) is

2. It is night and I see someone holding a flashlight walking around in the house next door to my house.
I might infer

But what might be really happening (in fact) is

3. I hear a cat squeal and see it run out of the room where my sister is.
I might infer

But what might be really happening (in fact) is

4. My mom gives me a new vegetable to eat that I have never eaten before.
I might infer

But what I might infer instead is

5. A new boy enrolls in my school who is very tall.
I might infer

But what I might infer instead is

6. My grandmother tells me on the telephone that she is sending a package for me and my brother. But when the package arrives, there is only something in it for my brother. I might infer

But what might in fact be true is

7. The teacher tells the class to read their books. I look across the room and see one child's book upside down.
I might infer

But what might be really happening is

8. I come into class and see a child picking up glass from the floor.
I might infer

But what might be really happening is

9. My friend has not come to school in several days.
I might infer

But what might be really happening is

Think for Yourself (#8)**Understanding the Difference Between Inferences and Assumptions**

On the next two pages is a chart. You are going to copy from your activity sheet entitled "Working with Inferences" the inferences you wrote down for each of the situations. These are the inferences you wrote when you completed the statement, "I might infer:" for each of the situations. Once you have done this, you will figure out the generalization that led you to that inference. These generalizations are assumptions, or beliefs, you were taking for granted in the situation. And they led you to the inferences you wrote in the "Working with Inferences" activity. The first one on the chart is an example for you to follow.

Situation	I Might Infer	Assumption
1. One of my friends walks by without saying hello to me.	She doesn't like me anymore	Whenever my friend walks by without talking to me it's because she doesn't like me anymore.
2. It is night and I see someone holding a flashlight walking around in the house next door to my house.		
3. I hear a cat squeal and see it run out of the room where my sister is.		
4. My mom gives me a new vegetable to eat that I have never eaten before.		
5. A new boy enrolls in my school who is very tall.		

Situation	I Might Infer	Assumption
6. My grandmother tells me on the telephone that she is sending a package for me and my brother. But when the package arrives, there is only something in it for my brother.		
7. The teacher tells the class to read their books. I look across the room and see one child's book upside down.		
8. I come into class and see a child picking up glass from the floor.		
9. My friend has not come to school in several days.		

Think for Yourself (#9)

Correcting for Faulty Inferences

Read each of the situations below and what is inferred in the situation. Then write a more reasonable inference.

1. John thinks it would be fun to push Jan down in the mud. Others laugh because they infer it is funny.

But what they should really infer is:

2. Sarah can't find her roller skates. When Judy was at Sarah's house yesterday she was commenting on how nice Sarah's skates were and how much she would like to have skates just like them. Therefore when Sarah can't find her skates she infers that Judy must have stolen them.

But what she might infer instead is:

3. Marge likes to tease little children. She infers it is funny.

But instead she should infer:

4. A group of children at recess will not let the new child play basketball. The group infers she wouldn't play well because she is small, and that people who don't play well shouldn't get to play with them.

But instead they might infer:

5. Peter is often cruel to his pets. He infers that it is fun to see animals hurting.

But what he should infer instead is:

6. One child in the class is often acting out in order to get attention. He infers that the best way to get attention and to get what he wants is to act out.

But what he might infer instead is:

7. Some children in the class don't do the homework that the teacher assigns. They infer that the homework is not important and they shouldn't have to do it.

What they might infer instead is:

Think for Yourself (#10)**Understanding Inferences**

Now that you have studied inferences, complete the following statements in your own words:

An inference is:

The most important thing I have learned about inferences is:

This is important because:

If I am careful when I make inferences I will:

Think for Yourself (#11)**Faulty Assumptions People Sometimes Make
Which Lead to Prejudices**

Assumptions are generalizations we use in our thinking to make inferences. When you understand what assumptions you are making, you can see how they might lead you to come to conclusions about people before you have enough information to judge them. In other words, you can see how you might be prejudging the person based on faulty assumptions.

For example, if you are a boy and you think that all boys are smarter than girls, whenever you meet a girl you will prejudge her to be not as smart as you. You might not want to do group work in class with girls because of your faulty assumption about boys being smarter than girls. Instead you might want to work only with boys because you think they are the smartest.

To practice understanding faulty assumptions, fill in the blanks with assumptions that would lead you to prejudge people:

All boys are _____

All girls are _____

All pretty girls are _____

All cute boys are _____

All tall boys are _____

All short boys are _____

All parents are _____

All teachers are _____

All adults are _____

Helping Children Think Critically About Ideas and Concepts

For children to develop their reasoning abilities they need to learn to think in a disciplined way about concepts. They need to take words seriously. They need to understand that people often use words when they don't really understand their meanings. Good thinkers are precise in their use of language. They don't use words carelessly.

One way to help children use language with care is to have them regularly work with dictionaries. They need daily practice in looking up words, defining them, writing definitions in their own words, and applying them to real life situations. On the next page you will find some exercises for doing this, followed by some examples. Notice that the exercises vary according to how one would contextualize them. Use these as ideas to create your own exercises.

The basic idea is this:

1. The child looks up a word in the dictionary.
2. The child writes the definition as found in the dictionary.
3. The child writes the definition in his/her own words.
4. The child applies the concept to some examples in life.

Using this structure children can think through any number of abstract concepts including:

Democracy
Friend
Parent
Cooperation
Independence
Violence
Cruelty
Communication
Intelligence
Education
Greed
Selfishness
Empathy
Courage
Compassion

You might have children work in groups, giving each group a dictionary. Children can look up the words together, then write their own definitions separately. Allow them to help each other and therefore benefit from one another's insights and ability levels.

You should carefully choose your dictionaries since some of the elementary/middle school dictionaries may not include the words you will want your children to focus on. In addition, some dictionaries are not as well written as others.

Leading a Socratic Question Dialog Focusing on Key Concepts

Prior to having children think through these concepts using dictionaries, or afterwards, depending on the case, you might lead a short Socratic discussion with them.

Take, for example, the concept of cooperation. To understand any concept well is to understand its opposite. Therefore, to understand when we should not cooperate is as important as understanding when we should cooperate, if we are to grasp the conceptual meaning of “cooperation.” Yet too often children are simply told to cooperate, as if cooperation were always desirable. Through a Socratic dialog, we can help students begin to think critically about this concept.

Your Socratic dialogue might look something like this:

- What does it mean to cooperate?
- Can you think of a time when you cooperated? Explain.
- Can any one else think of a time when you cooperated?
- Should you cooperate with your parents? If so, why?
- Should you cooperate with your teachers? If so, why?
- Should you cooperate with your friends? If so, why?
- Should you always cooperate?
- When should you?
- When should you not?
- When people want you to go along with something that you think is wrong, should you cooperate? What if people call you names if you refuse to cooperate, should you cooperate then?
- What would the world be like if no one ever cooperated with each other?
- What would it be like if everyone always cooperated?

During any Socratic dialog, you should maintain intellectual discipline by periodically *asking children to say in their own words what other children have said* (see classroom strategy #3 on page 29). You should do this often even during a short dialog. You will find this to be a powerful way to teach critical listening. Also, remember to call on all children to answer questions, bringing all children into the discussion.

You might focus on the **concept of democracy**, focusing on the following types of questions:

- What is a democracy?
- What does it mean to live in a democratic country?
- Can a democracy work well if people within it are uneducated? Why/why not?
- Can it work if people are not willing to find out about laws before voting on them? Why/why not?
- Is everything in a family decided democratically? Is anything? What about at school?
- What would it be like if everything were decided democratically?
- What would it be like if everything were decided democratically at home?
- What would it be like if everything were decided democratically at school?
- What would it be like if nothing were decided democratically?

Or you might focus on a concept like “language:”

- What is language?
- Can people communicate with each other when they don’t understand each other’s language?
- What is the purpose of language?
- What are words?
- Can we use our words to hurt people? To help people?
- What would it be like if we didn’t have words?
- Would life have meaning without words?

Here are the types of questions you might ask if you want children to think critically about what it means to be a “friend:”

- What does it mean to be a friend?
- How do you know when someone is your friend?
- Can someone be nice to you and not be your friend?
- Can someone tell you things you might not want to hear and still be your friend?
- Is it possible for someone to not play with you and still be your friend?
- What is the difference between a friend and a classmate?
- Can your parent be your friend?
- Is it important to have friends?
- If someone is not your friend, how should you treat her/him?
- Is it possible to be friendless?
- How would you feel if you were friendless?
- Have you ever refused to be someone’s friend when s/he wanted you to be?
- What is the difference between a friend and an enemy?
- Is it possible for someone to try to injure you and still be your friend?

Or you might focus on a key concept within the subject you teach, such as science. Here are some questions you might ask to help children begin to think critically about science:

- What are the kinds of things that scientists do?
- Why is science important?
- What are some of the questions scientists ask?
- What have we figured out using science?
- What are some things we should be able to figure out using science?
- How is science different from other fields of study?
- What are some of the branches of science?
- How would our lives be different if we didn’t have science, or if no one thought scientifically?
- What are some of the limitations of science?
- Can science solve all our problems?

In introducing a concept, you might also use stories that highlight an important concept. Read the story; then come up with a list of questions that you could use in having the children think seriously about that concept. After reading the story to the children, use your questions as guides.

Think for Yourself (#12)**Understanding the Concept of Greed**

1. According to the dictionary, the definition of greed is:

2. In my own words, greed means:

3. One example of people being greedy is when they behave in the following way:

An implication of a person acting like this is:

4. Another example of people being greedy is when they behave in the following way:

An implication of a person acting like this is:

5. One time when I was greedy, I did the following:

One consequence of my doing this was:

6. The most important thing I have learned by thinking about the concept of "greed" is:

Think for Yourself (#13)**Understanding the Concept of Prejudice**

1. According to the dictionary, the definition of prejudice is:

2. In my own words, prejudice means:

3. One example of people being prejudiced is when they believe:

An implication of this prejudice operating in people's thinking is:

4. Another example of people being prejudiced is when they believe:

An implication of this prejudice operating in people's thinking is:

5. Another example of people being prejudiced is when they believe:

An implication of this prejudice operating in people's thinking is:

6. Another example of people being prejudiced is when they believe:

An implication of this prejudice operating in people's thinking is:

Think for Yourself (#14)**Understanding the Concept of Cooperation**

1. According to the dictionary, the definition of cooperation is:

2. In my own words, cooperation means:

3. I think that people should cooperate in the following types of situations:

4. When people cooperate, some implications of their cooperating are:

Part Five

The Intellectual Virtues

Helping Children Develop Character and Internal Motivation

In developing the minds of children it is important that we foster, not only skills of mind, but intellectual dispositions as well. In other words, we want to help children develop into fairminded persons who approach the world rationally. We want them to be intellectually empathetic, disposed to enter the viewpoints of others, especially those with which they disagree. We want them to be intellectually perseverant, willing and able to work through the difficulties in complex problems. We want them to be intellectually courageous, willing to hold and assert rational beliefs though others may ridicule them. We want them to have confidence in reason, so that they are willing to change their minds when other's thinking is more reasonable than their own. We want them to be intellectually autonomous or independent, able to stand alone in their beliefs, to think for themselves.

You should read an introduction to the intellectual virtues in *The Miniature Guide to Critical Thinking* in this packet. Some of these virtues are presented in *The Miniature Guide to Critical Thinking for Children* on pages 23–24 in the language of Fairminded Fran.

On the following pages are exercises you can use in introducing these virtues. These two examples can be used as models for the other intellectual virtues.

The basic strategy is to have children look up the intellectual virtues words separately, then think through what the words together must mean. Once children have done this, you can begin to use the concepts in class as relevant to the lesson or issue.

For example, once children understand what it means to be intellectually perseverant, you can help them see when they are not being intellectually perseverant. You can remind them that intellectually perseverant persons do not give up when learning is difficult. They keep working until they figure out what they are trying to figure out. All of the best thinkers throughout history have had this virtue.

You can read children stories about inventors who worked and worked to figure something out, never giving up even through many disappointments. You might focus, for example, on someone like Morse who, despite discouragement and ridicule, toiled for many years to build a functional telegraph system. He knew he had an important idea and he persisted until he figured out how to make it work. There are many such stories in history that can be used to exemplify this virtue.

Another note on dictionary use. When using exercises requiring dictionary usage, you should encourage children to look not only at the particular word they are focused on, but related words. This will help them gain the richest meaning of the word. For example, to find the meaning of "intellectual," they may need to look at dictionary entries for related words such as "intelligent" and "intelligence." Children are asked to do this in the activities in this section.

Think for Yourself (#15)**Understanding Intellectual Perseverance**

1. According to the dictionary, the definition of intellectual (or intelligent) is:

2. In my own words, I would say intellectual means:

3. According to the dictionary, the definition of perseverance (or perseverant) is:

4. In my own words, I would say perseverance means:

5. Putting the words intellectual and perseverance together, I would say
“intellectual perseverance” means:

Think for Yourself (#16)**Understanding Intellectual Independence**

1. According to the dictionary, the definition of intellectual (or intelligent) is:

2. In my own words, I would say intellectual means:

3. According to the dictionary, the definition of independence (or independent) is:

4. In my own words, I would say independence means:

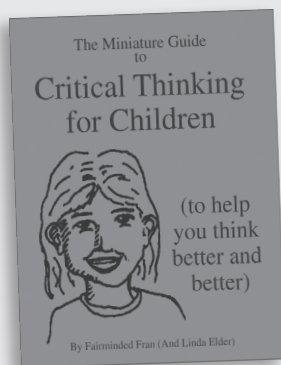
5. Putting the words intellectual and independence together, I would say "intellectual independence" means:



The
Foundation
for
Critical Thinking

Resources for Elementary Education

For Elementary Teachers and Students



Critical Thinking for Children

This mini-guide is designed for K–6 classroom use. It explains basic critical thinking principles to children through the characters of Fairminded Fran, Selfish Sam, and Naïve Nancy. The Guide focuses on the concepts of fairmindedness and selfishness, the elements of reasoning, intellectual standards, and intellectual virtues.

Item #: **540M**

24 pages size: 4 1/4" w x 5 1/2" h

ISBN 978-0-944583-29-6

Price list: 1-24 copies \$5.00 each;
25-199 copies \$4.00 each;
200+ copies \$3.50 each

The Miniature Guide to Critical Thinking for Children 1

Contents

A Letter From Fairminded Fran	1
Meet Three Thinkers	2
Naïve Nancy	3
Selfish Sam	4
Fairminded Fran	5
The Spirit of Critical Thinking	6
Using Intellectual Standards in Thinking	8
Be Clear	9
Be Accurate	10
Be Relevant	11
Be Logical	12
Be Fair	13
The Parts of Thinking	14
Think about the Purpose	15
State the Question	16
Gather the Information	17
Watch Your Inferences	18
Check Your Assumptions	19
Clarify Your Concepts	20
Understand Your Point of View	21
Think Through the Implications	22
Develop Intellectual Virtues	23

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Think About Fran and Sam

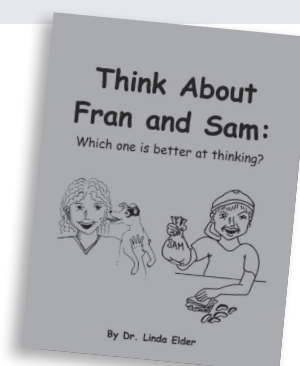
This story about Fairminded Fran and Selfish Sam is a story which helps children explore important concepts like fairness, selfishness and intellectual empathy. At the end of the story, children are asked to relate the concepts of fairness and selfishness to their own thinking and behavior.

Item #: **543M**

24 pages, size: 5 1/4" w x 8" h

ISBN 978-0-944583-24-1

Price list: 1-24 copies \$5.00 each;
25-199 copies \$4.00 each;
200+ copies \$3.50 each



Role-Playing Masks

This class set of masks will help depict the characters in the children's mini-guide and story above.

Using these laminated hand-held masks, students will enjoy role-playing Naïve Nancy, Selfish Sam, and Fairminded Fran.

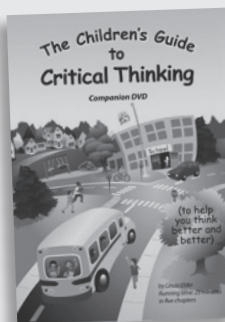
These masks enable teachers to focus on the importance of intellectual empathy and fairmindedness in ways meaningful to children.

\$13⁹⁵
set of 3

Item # **542P**



The Children's Guide – Companion DVD



The Children's Guide Video Companion DVD was created from *The Miniature Guide to Critical Thinking for Children*.

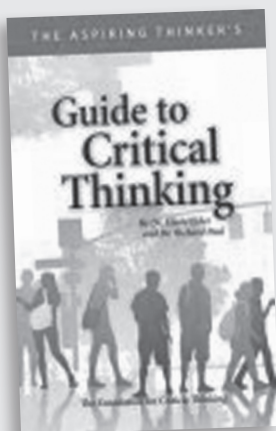
The book is read aloud while the key ideas and concepts are displayed. An engaging set of backdrops keeps this video entertaining while teaching important concepts in a clear way.
Running time: 23 minutes

\$12⁹⁵
each

Item # **350D**

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Additional Resources for Elementary Teachers and Students



The Aspiring Thinker's Guide to Critical Thinking

This new Thinker's Guide was created specifically for the aspiring young learner, however the content and approach are applicable to students and people of all ages. This guide introduces critical thinking concepts and provides strategies for developing one's own critical thinking process. Its full color images and glossy format help capture the attention of the teenage or pre-teen student while focusing on the essence of critical thinking as it applies to today's world. The skills implicit in this guide apply to all subjects. Teachers can use it to design instruction, assignments and tests in any subject. Students can use it to improve their learning in any content area.

Item #: **540M**

48 pages size: 5 1/4" w x 8" h

ISBN 978-0-944583-41-8

Price list: 1-24 copies \$6.00 each;
25-199 copies \$5.00 each;
200-499 copies \$4.00 each;
500+ copies \$3.50 each

Fairminded Fran and the three small black Community Cats

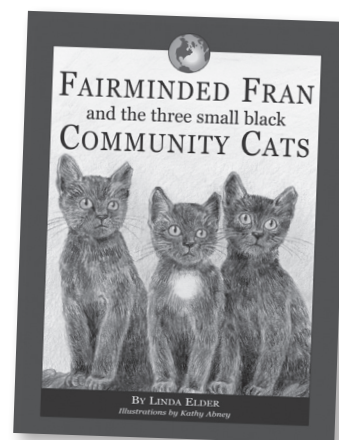
This is the story of Fairminded Fran and her experience in learning about community cats (also known as feral cats). On her journey Fran hopes to convince Selfish Sam to help with the cats. But Sam cares only for himself. She also asks Naive Nancy to get involved. But Nancy doesn't want to make waves, so she always goes along with the crowd. Join Fairminded Fran as she learns about cats that live outdoors and that can't usually be tamed. Learn important facts about community cats. Think about how their numbers affect the earth. Think about how we can work together to humanely stop the spread of community cats and reduce suffering. Think along with Fairminded Fran.

"...I enjoy the sense that 'Fairminded Fran' is not only concerned with the well-being of others less fortunate, but also that she has the determination to rally behind those who may need it most, as well as recruiting help. ... This is an excellent book to spread the word on the issues community cats face as well as what to do if crossed with a similar situation. I highly enjoyed this book and plan on using it to discuss such topics with my students."

Nicole Latosky, Humane Education Coordinator, Geauga Humane Society's Rescue Village

"Fairminded Fran and the three small black Community Cats" is a great read for anyone who values compassion. Delving into the complexities of how we, as a society, have historically dealt with cat overpopulation the book highlights effective and ethical solutions currently being applied by young enthusiastic problem solvers like Fran. The book wonderfully illustrates how people can gather together to make their neighborhood a kinder place."

Holly Sizemore, Director, Community Programs and Services, National Programs, Best Friends Animal Society



\$9⁹⁵ each

Item #544M

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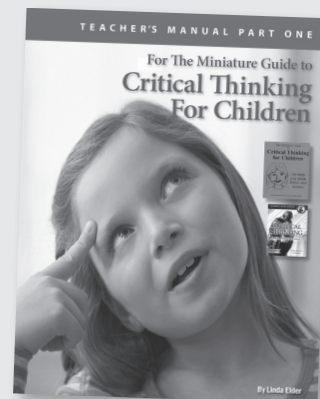
Additional Resources For Elementary Teachers

Teacher's Manual: Part One to the *Miniature Guide to Critical Thinking for Children*

One of our most popular elementary publications, this Teacher's Manual provides teachers with instructional strategies for using *The Miniature Guide to Critical Thinking for Children*. It includes the following:

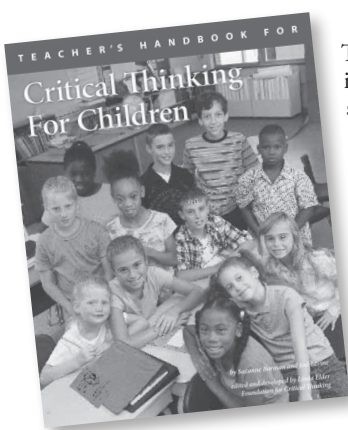
1. *The Miniature Guide to Critical Thinking Concepts and Tools*, a resource that briefly introduces teachers to the critical thinking concepts and theory they need to effectively teach children to improve their thinking and learning.
2. One copy of *The Miniature Guide to Critical Thinking for Children*.
3. Suggestions for using *The Miniature Guide to Critical Thinking for Children* and teaching basic critical thinking concepts.
4. "Think for Yourself" (TFY) activities for children which help them internalize critical thinking concepts. If your children are at the K–2 level or have reading difficulties, you can use the exercises as idea generators for verbally teaching the concepts.

All the ideas in this manual have been used with elementary students. Ideally children will have their own copy of *The Miniature Guide to Critical Thinking for Children*. As you use this mini-guide on a daily basis in your classes, children will begin to internalize critical thinking concepts and develop their reasoning abilities. Included in the Teacher's Manual are strategies for using the masks of Fairminded Fran, Naïve Nancy, and Selfish Sam. These characters can be used in helping children distinguish between skilled and unskilled thinking, as well as fair and unfair thinking.



\$14⁹⁵ each
Item # 541M

Teacher's Manual: Part Two to the *Miniature Guide to Critical Thinking for Children*



\$16⁹⁵ each
Item # 574M

This handbook is designed for teachers who want to foster fairminded critical thinking in instruction. The ideas in this handbook should not be considered an "add on," another set of procedures and activities to do in the classroom. Rather, they provide you and your students with intellectual tools that apply to the learning of all academic subjects. They apply to all learning activities. Once you have grasped the theory of critical thinking, you will find that it is relevant to everything you do in the classroom—to all of your content and instructional activities, and to all classroom management issues and student interactions. The intellectual tools to which you will be introduced in this Handbook come from the work of Richard Paul and Linda Elder and are designed to foster fairminded critical thinking. This Handbook is designed to be used in conjunction with *The Miniature Guide to Critical Thinking for Children* (Elder, 2006).

The lessons in this Handbook have been developed primarily through the work of Drs. Levin and Borman with elementary school students in classes where their focus was on helping teachers of these students foster critical thinking.

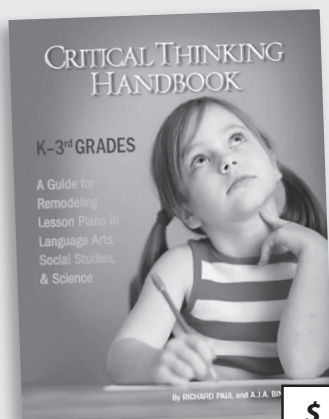
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Critical Thinking Handbook: K-3rd Grades

Critical Thinking Handbook: 4th-6th Grades

Guides for Remodelling Lesson Plans in Language Arts, Social Studies, and Science

These instructional handbooks are designed to demonstrate that it is possible and practical to integrate critical thinking into elementary teaching and learning. These handbooks introduce the concept of critical thinking. They highlight the use of drama, examples, images and Socratic questioning in fostering critical thinking. And they offer numerous remodeled lesson plans in language arts, social studies and science.



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Item # 401B

Through these remodeled lessons, teachers can see how most any lesson plan can be modified to emphasize critical thinking. This is a handbook you will turn to again and again as you work toward placing critical thinking at the heart of your teaching.



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Item #402B

Choose the one appropriate to the grade level you teach.

Elementary Education resources are also bundled into convenient sets:



K-3 Grade Teacher Bundle, Item #08BUND

The K-3 Teacher Bundle includes instructional design materials for grades K-3, elementary products for classroom use, and materials to help the teacher learn and begin to internalize the concepts of critical thinking.

THIS SET CONTAINS: 595M6: Analytic Thinking
350DVD: Children's Guide to Critical Thinking - Companion DVD
401B: Critical Thinking Handbook: K-3
544M: Fairminded Fran and the three small black Community Cats
542P: Masks of Fran, Sam, Nancy (set of 3)
570M5: Taking Charge of The Human Mind
541M: Teacher's Manual for 540M (children's mini-guide)
574M: Teacher's Handbook Part Two for 540M (children's mini-guide)
540M5: The Miniature Guide to Critical Thinking for Children
543M5: Think About Fran and Sam

\$88²⁰

4-6 Grade Teacher Bundle, Item #09BUND

The 4-6 Teacher Bundle includes instructional design materials for grades 4-6, elementary products for classroom use, and materials to help the teacher learn and begin to internalize the concepts of critical thinking.

THIS SET CONTAINS: 595M6: Analytic Thinking
350DVD: Children's Guide to Critical Thinking - Companion DVD
402B: Critical Thinking Handbook: 4th-6th Grades
200S: Laminated Card Set: Critical Thinking for Education (set of 6)
544M: Fairminded Fran and the three small black Community Cats
570M5: Taking Charge of The Human Mind
541M: Teacher's Manual Part One for 540M (children's mini-guide)
574M: Teacher's Handbook for 540M (children's mini-guide)
543M5: Think About Fran and Sam

\$86²⁰



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TEACHER'S MANUAL PART ONE

The Foundation for Critical Thinking seeks to promote essential change in education and society through the cultivation of fairminded critical thinking, thinking committed to intellectual empathy, intellectual humility, intellectual perseverance, intellectual integrity, and intellectual responsibility. A rich intellectual environment is possible only with critical thinking at the foundation of education. Why? Because only when students learn to think through the content they are learning in a deep and substantive way can they apply what they are learning in their lives. Moreover, in a world of accelerating change, intensifying complexity, and increasing interdependence, critical thinking may now be required for our very survival.

Contact us online at criticalthinking.org to learn about our publications, videos, workshops, conferences, and professional development programs.



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