A DE BONO TEACHERS' ACADEMY PROGRAM

CoRT Thinking Lessons

CoRT 1:
Breadth Thinking Tools

The Complete Learning, Planning, and Teaching Guide for Teachers, Administrators, and Home Schoolers

Name _____

deBono for Schools

CoRT 1 Breadth Tools
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A Message from Edward de Bono

CoRT Thinking Lessons have been taught in schools since the mid 1970s. They have since become the most widely used school materials for the direct teaching of thinking as a basic skill worldwide.

All of this experience has contributed to developing *CoRT Thinking Lessons* that

1. Are practical and hands-on in nature.
2. Can be taught as a separate subject–thinking skills–or embedded in existing curriculum to strengthen student learning and develop independent thinkers.
3. Are focused on equipping students to become effective, open-minded thinkers–critical, creative, constructive, and comprehensive.
4. Address the increasing interest and recognition for the need to teach thinking as a basic skill along with reading, writing, and mathematics; the traditional basics.
5. Can be used in a wide variety of situations from schools in disadvantaged areas to elite schools to students being home schooled.
6. Appeal to a wide range of ages (6-adult) and abilities (IQs of 75-140).

It used to be felt that a person with a high IQ would naturally be an effective thinker. This doesn't seem to be the case. Some people with high IQs turn out to be relatively ineffective thinkers. Some people with much more humble IQs turn out to be more effective thinkers. Here is my definition of thinking:

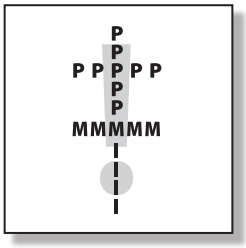
Thinking: *"The operational skill with which intelligence acts upon experience."*

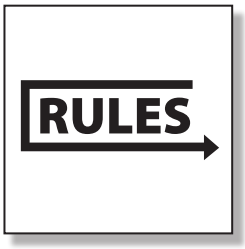
For example, if IQ is equivalent to the horsepower of a car then thinking skill is equivalent to driving skill. Just because a car has huge horsepower doesn't mean the car will be driven well. It takes a skilled driver.

This important realization has led many schools for the exceptionally gifted to teach *CoRT Thinking Lessons* as a deliberate attempt to help their gifted students avoid the "intelligence trap" which occurs when a high IQ is not accompanied by effective thinking skills.

The general method used is what I call the "glasses method." If you have poor eyesight you cannot see the world clearly. With glasses you can see the world more clearly. As a result your actions can be more appropriate and your behavior more effective. Experience has shown that students who learn these thinking tools develop a much broader view of situations. They are more complete in their thinking.

Edward de Bono

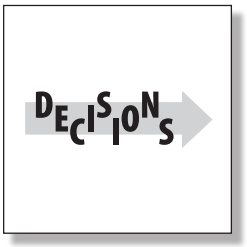


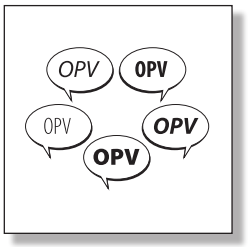


Section One

CoRT 1

Breadth Thinking Tools





Welcome to CoRT 1: Breadth Thinking Lessons

CoRT stands for Cognitive Research Trust. CoRT can also be regarded as being short for *cortex* where all thinking takes place in the brain. This handbook is designed to equip you with the information you need to teach these thinking tools to your students regardless of their grade level or age. The objective is to help students' master lifelong thinking skills that will help them in any situation. Once you've taught each tool to your students you will be able to customize each lesson to meet your specific needs.

CoRT Thinking Tools Key Points

1. Effective thinking, like literacy and numeracy, is not inborn–it has to be learned and practiced to be effective. Think of a person setting out to learn to be a carpenter. Each carpenter's tool is designed to carry out a specific function. The carpenter learns when and how to use each of the tools one by one. A lot of practice is required to become a skilled carpenter. Learning to become a skilled thinker is the same approach.
2. It's easy to explain and understand each of the tools. This isn't enough to make your students skilled thinkers. It's their practice using the tools that promotes their skill development.
3. Each tool has a name–one word or a short acronym that's easy to remember. For example–**CAF** is pronounced "caf" and stands for Consider all Factors, **PMI** is pronounced "p," "m," "i" and stands for Plus, Minus, Interesting. The word or acronym provides a shorthand instruction for directing thinking attention to help your students manage their thinking processes. With practice they will be able to apply each thinking tool at will and will be able to decide which tool or tools to use.
4. The tools are designed to be used objectively with an open mind–to broaden perception instead of defending a particular point of view. The tools provide frameworks for changing perception, seeing more broadly into the future, and into people's minds.
5. The tools emphasize thinking as a deliberate act rather than a reactive one.

CoRT 1 Breadth Thinking Tools Highlights

- We recommend you teach *CoRT 1 Breadth Thinking Tools* first.
- There are ten tools which can be taught in ten lessons over the course of ten weeks. Each tool is a separate thinking lesson.
- Breadth tools are designed to equip your students with fundamental thinking skills that will broaden their perception about everything they choose to think about.

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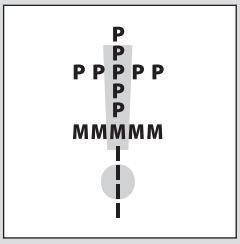
Quick Summary: CoRT 1 Breadth Thinking Tools

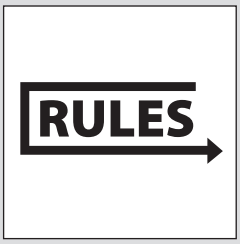


PMI:
Plus • Minus Interesting
The Treatment of Ideas

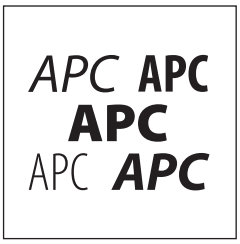
Planning
Thinking Ahead to Get Things Done

CAF:
Consider All Factors
The Prime Information Input Tool

FIP:
First Important Priorities
What Must be Done First? What's Most Important?

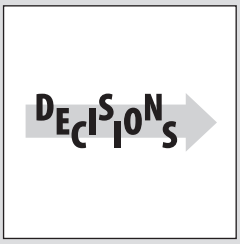


Rules
Make Life Easier and Better



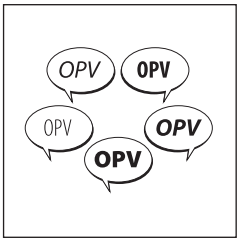
APC:
Alternatives Possibilities • Choices
The Tool for Creativity

C&S:
Consequence & Sequel
A Prediction and Evaluation Tool



Decisions
Think Clearly and Thoroughly

AGO:
Aims • Goals Objectives
What Is the Purpose?



OPV:
Other People's Views
An Exploration Tool to Broaden Perception

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Prepare to Teach CoRT Thinking Lessons

The purpose of these thinking lessons is to develop thinking as a skill that can be applied to any situation. The lessons are designed to be taught once a week for ten weeks. Average lesson time can be as short as 35-40 minutes.

Tips to get started:

1. Learn the tools first to develop your competence and confidence.
2. Become comfortable with this new vocabulary by using the word or acronym for each of the tools.
3. Complete the practice topics provided on the student work cards.
4. Apply the tools to topics that are relevant to your work and personal life to further develop your thinking skills and your confidence with the tools.
5. Make a master copy of the reproducible student work cards. Print a supply on heavy card stock to be ready for your students.
6. Plan to visually reinforce the tools in your classroom.
7. Decide how you are going to keep track of time during practice exercises in order to keep your lesson pace brisk and to avoid drift.
8. Decide how you are going to introduce *CoRT Thinking Lessons.* Here are some different ways:
    a. Include CoRT Thinking as a curriculum subject.
    b. Embed in one of your curriculum subjects–history, political science, media studies, humanities, and language arts are just some examples.
    c. Hold a student seminar.
    d. Start a school thinking club.
    e. Include as part of your school's debate team training.
    f. Hold Saturday morning thinking classes.
    g. Include an overview or training at a parent symposium.
    h. Hold a school assembly to overview the program.
    i. Include, as professional development, training for teachers and administrators.
    j. Hold a think-a-thon.
9. Get a local business or foundation to provide funding if you need a budget.
10. Create a flyer to share with students, parents, and administrators.
11. Post your course description on your school's website.
12. Start to develop your own library of custom topics to use with your students once they have learned the tools.

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Resources to Support Student Learning

Reproducible Student Work Cards

Student work cards are designed to reinforce each tool. They all follow the same format for ease of use and to ensure consistency while teaching each of the tools.

The Format

1. The visual icon with the word or acronym is on the front to reinforce the tool and to make it easier for students to remember and learn each tool.
2. A description of the tool follows the icon.
3. An example is given that demonstrates the tool in use.
4. Practice topics are listed.
5. Process discussion questions are provided.
6. Five principles are listed for discussion and to reinforce the tool.
7. Project topics are listed that can be given as homework or writing assignments.

To help keep student materials affordable for budget-pressed school districts, we have included reproducible student work cards in a section at the back of this handbook.

- Two sets of reproducible student work cards are included. One set is in black and white and one set is in color.
- You could make a master copy and then create a two-sided copy of each student work card on heavy card stock. Card stock is suggested because it is more durable than regular copier paper.
- Three-hole punch if your students keep their work in binders.
- If you use colored card stock, you could produce each CoRT Tool on a different colored card stock to help your students navigate quickly among the tools during classroom use.

The Minds of Your Students as a Resource

Thinking is the skilled use of already available information. In these lessons your students aren't required to absorb other material before they can start thinking. The student work cards serve only to trigger your students' minds. This is why the student work cards can be used with a wide range of ages and abilities. The practice topics reinforce the idea that students should be able to think on demand about anything.

Since your students aren't required to absorb materials before they begin to think, students who aren't good at absorbing materials because of disability or inattention find they can function well in thinking lessons.

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Lesson Structure

Each lesson follows the same basic structure. Within the structure the content varies widely.

Introduction: The thinking tool is explained with an example.
Practice: Practice topics are selected to practice the thinking tool.
Process: Discussion questions are given for open class discussion.
Principles: Five basic principles about the thinking tool are given to groups to discuss.
Project: Additional topics are provided which can be assigned as homework or completed during class.

Sample Lesson Timing

Option 1		Option 2	
Introduction	3 minutes	Introduction	3 minutes
Practice Topic	6 minutes including output	Practice Topic	6 minutes including output
Practice Topic	6 minutes including output	Process discussion and principles	10 minutes including output
Practice Topic	6 minutes including output	Practice Topic	7 minutes including output
Process Discussion	8 minutes	Practice Topic	7 minutes including output
Principles Discussion	4 minutes		
Total	33 minutes	Total	33 minutes

Notes:

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Eight Steps of a Successful CoRT Lesson

Each of the CoRT lessons follows the format on the corresponding reproducible student work card. Keep each lesson brisk. The objective is to give your students time to practice and to learn the idiom of each thinking tool.

Step One: Start with a story or an exercise which illustrates the thinking tool that is the subject of the lesson.

Step Two: Introduce the thinking tool of the lesson and explain clearly what it does. Use the terminology to reinforce the tool and show the icon. You can use the description and example on the student work card if you like.

Step Three: Carry out an open class example by giving a topic and asking for individual responses using the thinking tool. Repeat the letters or word of the tool as often as you can. Ask your students to repeat the name of the tool back to you to get them comfortable learning the new vocabulary. Hand out the student work cards if you haven't already done so.

Step Four: Select a practice topic from the student work card. It's important that your students practice first on practice topics from the student work card in order to start their process of learning how the tool works. Divide the class into groups. Allow about 3 minutes or the time specified.

Step Five: Solicit practice topic responses from each group to test for student understanding– about 3 minutes.

Step Six: Repeat step four and five to fill the practice time you have available for the lesson. When you have completed the practice portion, shift the lesson to the process discussion section on the student work card. This can be an open class discussion.

Step Seven: Assign groups to review and discuss the principles listed on the student work card. Give about 3 minutes for group discussion and then open up to the whole class. If this discussion is weak, plug in a final practice item.

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Step Eight: If it is customary to give homework or if you have time, assign one of the project items or a custom project you have designed.

Once your students have learned the tool you are encouraged to assign relevant topics of your own design.

Tips to Teach Process Lessons

A process is a systematic series of steps to meet a goal. Each of the ten CoRT tools is a process thinking tool. Therefore, CoRT thinking lessons are focused on teaching students specific frameworks to be able to thoroughly think through situations, topics, challenges, decisions, and problems. The objective of each lesson is for students to learn a specific thinking tool that will help them to become effective, lifelong thinkers.

Teaching process lessons is not the same as teaching knowledge lessons which are the most common kind of lessons taught in schools. When teaching knowledge lessons your objective is to impart a specific body of knowledge to your students. Students realize a sense of achievement by getting the "right" answer.

With process lessons student achievement is recognized by their ability to stay on track with the process tool being taught. Also, with CoRT thinking tools students will often think of far more points than they would normally think of if you had just asked them "What do you think about …?"

If this is your first experience teaching process lessons, these tips may help you:

1. Process lessons are focused on student output being aligned with the process step.
2. Keep an open mind. You can't think of all the possible responses you will get from your students during a lesson exercise or assignment as each student is unique.
3. If you aren't sure how the student output is aligned with the process step, ask the student for clarification. Often students will express valid points that you won't be familiar with because they have different experience and background knowledge. Your question may also help students realize their response is not on target and they will rethink their response.
4. Avoid thinking drift by keeping the focus clear at all times and by keeping your students on focus.
5. Be clear with explanations, examples, instructions, time, and expectations.
6. Be definite about the action you want from your students.
7. Be deliberate with what you choose to have your students do.
8. Avoid wordiness which creates confusion.

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Getting Ready to Teach CoRT 1 Breadth Tools

1. What is my target date to teach my first lesson? _____

2. What is the student profile? _____

_____

_____

3. What are my goals for these lessons? _____

_____

_____

_____

4. Which education and/or curriculum standards will these lessons support? _____

_____

_____

What do I need to do to be ready?	
Action Items	By When?

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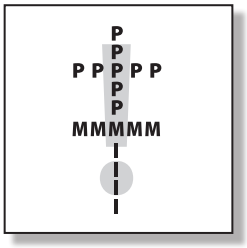
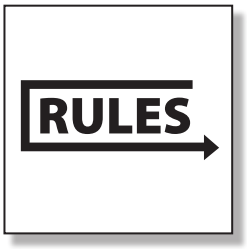
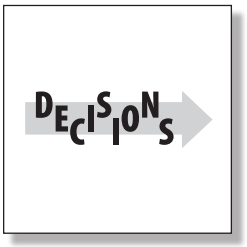


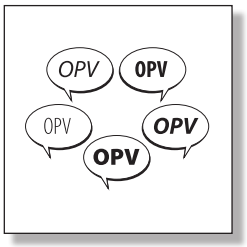


Section Two

CoRT 1

Lesson Notes





Introduction to Lesson Notes

CoRT 1 Breadth tools are designed to broaden the perception of your students. They should know more about and have a broader view of each thinking situation after applying any of these tools than they had before they started.

Format of the Lesson Notes

- Each of the ten tools follows the same format. The lesson notes include information about each tool to help you prepare your lesson plan.
- Sample responses are provided for practice topic one. You will need to think of sample answers for all of the practice topics as part of your preparation.
- A copy of the student work card is included.
- A Lesson Preparation Practice Worksheet follows the student work card.
- A Lesson Planning Topic Ideas Worksheet is next.

Students Learn in Groups

During each CoRT Thinking Lesson, students work in small groups. The group format is an important part of the lesson structure for the following reasons:

- Shy and quiet group members are able to observe the thinking tool in practice among the more active group members. Over time their shyness disappears as they become accustomed to working in groups and their participation increases.
- Students that like to give all the answers by nature are able to experience the broader impact of the thinking of other group members. They start to understand there are many relevant responses, not just their own.
- Within each group there is more time for back-and-forth discussion, disagreement, and alternative points of view than there could ever be with the whole class, since the members of each group can talk more often.
- The very nature of the thinking lessons involves the practice of a particular thinking operation, and this is easiest in small groups.
- In several schools the thinking lessons have provided the only opportunity for students to work in groups, and this in itself can have socializing value. The students themselves seem to enjoy working in groups.

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Forming Student Groups

As there are ten lessons, one of your objectives is to ensure you mix up the groups rather than have your students remain in the same group the entire time. There are several ways of doing this, and you will have some of your own:

- Divide your class into groups you think would work best.
- Use an arbitrary arrangement according to where students are sitting.
- Students draw slips of paper from a hat, which assigns them to a particular group.
- Permit natural groups in which a group of friends work together.
- Students form a line in order of their birthdays. If you are organizing groups of four, for example, groups of four are formed as you move down the line of students.

Group Spokesperson

There are times when someone has to give the output of the whole group. This spokesperson should be determined beforehand. The spokesperson may want to take down in note form the output produced by the group.

Managing Group Output

There are several ways of managing output. Here are a few:

- Round robins–call for one point from each group and rotate around the groups until each group has finished.
- Break the output by tool segment. For example: **PMI**–one group gives the plus points, the next group gives the minus points, and the next group gives the interesting points. Be sure to have all groups do the complete **PMI**. The division is only to speed up the output. When finished, open up to the entire class for additional points.
- If the practice topic calls for more than one tool (**CAF + APC**), you could assign groups which tool to use. Call for each group's output and then ask the class for additional points. This helps to ensure each student practices each tool.

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