Chapter Eleven

IN WHAT WAYS CAN WE PLAN LESSONS FOR HOME ECONOMICS CURRICULUM?

LESSONS FOR CRITICAL THINKING/EMANCIPATORY ACTION

Critical thinking involves thinking through problematic solutions about what to believe or how to act where the thinker makes reasoned judgments that embody the qualities of a competent thinker. (Case & Daniels)

Critical thinking is a critical spirit or attitude... the disposition to compare claims or arguments against another, weigh evidence and form conclusions based on sound reasons, rather than authority, expedience, whimsy, tradition, or irrational compulsions. Brown, M., & Paulucci, B. (1979). Home economics: A definition. Washington, DC: American Home Economics Association

In this chapter we will focus on ways to engage learners in thinking that is relevant to their everyday lives. We will highlight some of the activities that provide the occasion for critical thinking in the home economics classroom - activities that assist students in problems posing, problem solving, issue analysis, and other forms of critical inquiry.

Everyday problems such as those encountered in home economics lack clear procedures for how to go about solving them, and there are no “correct” answers. Criteria to decide if a problem has been solved must be identified by the problem solver. Individuals and families face unstructured problems every day. Home economics classes, therefore, provide unparalleled opportunities for students to work to solve real-life problems.

In order to solve home and family problems, students need to think about problems and problem-solving, develop critical thinking processes for solving different types of problems, and make and defend judgments regarding hypothetical, simulated and real everyday practical problems. In other words, problem solving, decision making, issue analysis, and inquiry provide occasions for critical thinking.

The following questions help students develop critical cognitive processes for solving problems.

- What is the real problem?
- What should I do first?
- What information do I need to solve this problem?
- Where can I go wrong?
- What are my alternatives?
- What will be the consequences of doing this?
- Will the consequences be good for me? My family?
• Have I forgotten anything important?
• Do I need to think about this for awhile?

Thinking critically is not a unique form of thinking. In critical thinking, “critical” refers to the quality of thinking. It is the opposite of uncritical thinking where assertions are accepted without any assessment. We are not looking for students to come up with the “right” answer. What we want is for them to detect bias, stereotyping and racism; question what is taken-for-granted; determine “in whose interest”; consider alternative points of view; clarify concepts used; determine the consequences of various actions; give supporting evidence for positions held; and come up with a reasoned judgment.

For the Critical Thinking Consortium (TC2) one of the key considerations in designing curriculum for critical thinking is developing habits of mind for critical thinking (see Fig 11-1)

<table>
<thead>
<tr>
<th>Open-Mindedness</th>
<th>Key Traits</th>
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| A habit or willingness to entertain new or different ideas and alternative ways of doing things, of looking at people and events (opposite: closed-minded or rigid) | • recognize differences in points of view  
• entertains contrary positions |

<table>
<thead>
<tr>
<th>Full-mindedness</th>
<th>Key Traits</th>
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| A habit or inclination to make up one’s mind on the basis of adequate understanding of the whole story (opposite: simple-minded or simplistic) | • anticipates complexity  
• recognizes stereotyping  
• suspends judgment when warranted |

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<thead>
<tr>
<th>Fair-mindedness</th>
<th>Key Traits</th>
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| A habit or inclination to give a fair hearing to alternative points of view – to judge on the basis of merit not simply on personal interests or preferences (opposite: narrow-minded or prejudiced) | • empathizes with others  
• overcomes bias |

Figure 11-1. Habits of Mind for Critical Thinking (TC2)

Since Brown and Paolucci wrote the mission statement for home economics in 1979, practical reasoning has been associated with communicative and emancipative action. Practical reasoning, a critical thinking process for questions where there is no one right answer, is frequently recommended. At one time, a few states in the United States
developed whole curriculum documents and lesson plans for home economics around this process. Practical reasoning involves making a decision by a process of deciding the best course of action. The most important part of practical reasoning is not whether the decision is right or wrong but the reasons that a person is able to give for one's choice. The purpose is not to win but to show that people can have valid and legitimate reasons for making decision keeping in mind fundamental human rights.

This critical thinking process works well in dealing with topics that are controversial and when there is no common agreement on what action to take. In Food Studies, controversial topics include, genetic modification, corporate involvement in the food system, child labour, marketing "junk" food, what nutrition information to believe, fad diets, and so on. In Textile Studies, controversial topics include labour issues, environmental issues, fashion advertising, corporate responsibility. In Family Studies, controversial topics include, same sex marriage, who should be responsible for child care, homelessness, food security, racism, family violence, and so on.

Practical reasoning mode involves:
1. Defining the Problem
   - describing the current condition, the ideal condition, the basic values
2. Identifying Possible Actions/Solutions
   - describing the various alternatives, examining the arguments for and against; determining the underlying values and beliefs
3. Examine the Consequences of Various Actions
   - for self and for others
4. Assess the Possible Action
   - would this action be appropriate if I was in this circumstance? (Role Exchange Test)
   - would it make a difference to my decision, if one or more conditions changed? (New Case Test)
   - would it be acceptable if everyone did this? (Universal Consequences Test)

Another process that works well with controversial issues is the four-step process proposed by Clarke (2005) as:

1. Identify what the issue is about?
   - is uncertainty or disagreement about:
     - information (what is the truth, what is the case);
     - values (what should be, what is best);
     - concepts (what does this mean, how should this be defined).
2. What arguments are presented by the various positions on the issue?
3. What are the assumptions behind the arguments?
4. How are the arguments manipulated?
   Typical Ways of Manipulating the Arguments include:
   - Scapegoating - the practice of singling out one person or group for unmerited negative treatment or blame
• Polarized Thinking - •Either-Or Tactic - based on the assumption that there is no middle ground between two extremes a way of thinking that puts life events into all-or-nothing terms. Things are black or white, good or bad, etc
Ad Hominem Strategy - is an attempt to link the truth of a claim to a negative characteristic or belief of the person advocating it.
• Straw Person - when a person simply ignores a person's actual position and substitutes a distorted, exaggerated or misrepresented version of that position; leaving out key points of an opposing argument or quoting a person's words out of context, are cue to use of this strategy
• Irrelevant Appeals - attempts to sway the listener with information that, though persuasive, is irrelevant to the matter at hand. different ways of influencing what people think without using evidence, e.g. appealing to an authority,
• Overgeneralization: when a general conclusion based on a single incident or piece of evidence.. 'Always' and 'never' are cues that this style of thinking.
• Leading Statements - using language which suggests a particular answer.
• False Analogy making misleading, superficial, or implausible comparisons.
• Extreme Examples – using examples far beyond a norm in quantity or amount or degree
• Emotional Appeals - attempts to arouse the emotions (anger, pity, sympathy, status) of its audience in order to gain acceptance of their position.
• Weasel words - those that make a topic appear accepted without providing anything specific to back it up (e.g., “they say…” without saying who “they” are).

The following issue Analysis Format (Ramsey, Hungerford, & Volk, 1989) is similar but is more useful when there are different groups with different perspectives involved and while teasing out the arguments is also part of this process, the main goal is to identify the people or groups involved and the reasons they have for being concerned about the issue and their underlying values. The process is as follows:

Identify
  1. The problem
  2. What makes it an issue
  3. The players
  4. Their position
  5. Their beliefs or reasons for holding this position
  6. The values associated with the beliefs or reasons

The associated values may be one or more of the following
  • Aesthetic
  • Cultural

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• Ecological
• Economic
• Educational
• Egocentric/prudential
• Social
• Moral/ethical

Another problem inquiry model is called SHOWED. In this process, a cue such as a picture, poem, newspaper article, or video clip, acts as the catalyst to further elaborate a given problem, issue, or dilemma. In a classroom this can be done as a group activity that encourages discussion of the dilemma. The intent is to dig deeper into the root causes of a dilemma or problem to determine appropriate action.

S - What do you SEE or how do we name this problem?
H - What is really HAPPENING?
O - How does the story relate to OUR lives?
W - WHY does this problem exist? What are the root causes? What socio-cultural and political factors contribute to it?
E - EVALUATE Were all possibilities covered? How might we become EMPOWERED now that we better understand the problem?
D - What can we DO about it?

It is unlikely that you would use any of these processes from beginning to end in one lesson, at least not at the beginning of a course or a unit. You will probably gradually initiate students by having them do smaller activities that help then develop habits of mind and learn the various facets of practical reasoning. The culminating project for a unit might be completing the whole process and defending a course of action.
No template for a critical thinking lesson plan is be provided. Instead a series of examples of some of the small activities and process that can be used in the classroom are giving.

**Examples of a Concept Clarification Exercise**

Concept clarification is one of the most important aspects in performing well as a thinker. Basically, it involves defining terms and expressions and assuring that there is no ambiguity, vagueness, nor imprecision in a word or term used in an argument. The central challenge in concept clarification is to understand how words carry emotions, values, and assumptions. Concept clarification addresses the necessity of creating common meaning to reduce misunderstandings. The failure to develop this ability is a major cause of uncritical thought and selfish critical thought.

This first example addresses the concept of Child Labour. The term “child labor” has many definitions depending on who is talking about it. This exercise shows the importance of understanding the various nuances of a concept.

**Topic – Clarifying the Concept of Work in a Unit on Child Labour**

1. **Introduction:** Read or put the following statement on the board or overhead:
    *According to the International Labour Organization (ILO), some 250 million children, between the ages of 5 and 14, work.*
    - Direct students to make a list of all the types of work that they think children do.
      Sometimes it is helpful to give them a target, (i.e.) can you list at least 20 in two minutes?
    - Direct students to add to their list all the work they do.
    - Have students get together in pairs to share their lists, to note what they have listed that is the same and what is different.
    - Make a combined list.

2. **Concept Clarification Activity**
   a) Explain to the class that children have always worked and that the work done by children can be categorized as **developmental work** or **exploitative work**. Go through definitions.
      - **Developmental work** is educative. It contributes to a child’s social, emotional, mental and physical growth, and development. It develops a sense of responsibility in children (accomplishing a task, contributing to the family) and develops their skills and abilities. The International Labour Organization calls this “acceptable work” or “light work.” The hours and the working conditions are such that it is not harmful to health and development, and does not prevent a child from attending school or vocational training.
      - **Exploitative work** is work that uses children, is harmful to health and development, and prevents attendance in school or vocational training. Usually the term child labour refers to exploitative labour. It involves all children working more than 14 hours a week in hazardous conditions, and in the worse cases...
forced or slave labour, and all children below the age of 12 who are engaged in paid work.

- Have the students go back to their lists of the types of work that children do and classify the ones in their lists either as “D” for developmental or “E” for exploitative.
- Once completed, have the students share some of their examples of each kind of work. If there were jobs that they had difficulty classifying, these could be discussed by the class as a whole and the classification determined.

b) Explain that forms of exploitative child labour can also be further categorized as either quantitative or qualitative. Go through the definitions.

**Quantitative exploitative work** occurs when the child is not paid what the labour is worth. It allows the employer greater profit and wealth.

**Qualitative exploitative work** describes work that takes away from imperative child development activities. This poses serious consequences for the child’s mental and physical development.

- Direct students to go back to their lists and for every exploitative example, they are to decide whether it is quantitative or qualitative or both.
- Once completed, have students share examples that they thought were quantitative, qualitative, or both.

[This is a modified section from a lesson plan prepared for Global Education Teaching Resources, a Global Classroom Initiative, British Columbia Teachers’ Federation, http://bctf.ca/DBSearch.cfm?page=GlobalEd click on Home Economics, lesson title ]

A) Awareness Activity – Eating the Way the World Eats
- randomly hand out slips of paper to students
- have students move into colour groups and sit together
- tell the students that today they are going to eat the way the world eats as they have their lunch. Hand out the lunch bags. Have each group discuss what they got for lunch, how they feel about it, and the consequences for them if this is what they had to eat every day. Have each group share what they got for lunch, how they feel and the long term consequences of this diet. Have the students discuss in their groups these questions: Would you like to change the way food is distributed? Why? What would be the advantages of changing the way food is distributed? The disadvantages? Have each group share the results of this discussion with the class. (As part of advance preparation you can put R1, R2, S1, S2 on the slips of paper so that the roles of recorder and speaker for the two discussions are random.)

Avoid creating a rich world, poor world mind-set where students think that the world is divided into well-fed and hungry countries. Point out that there is poverty and wealth in all countries and that just the distribution varies. For example, in Canada there are very few rich people, many middle-income people and a significant country of poor people who go hungry. In some countries such as Sweden, although a small proportion are very wealthy, most live at a middle-income and very few go hungry. In some countries such as India, most of the people are poor and almost half do not have an adequate diet. Nevertheless there are a few rich people, and a significant number who are middle-class.
Students are then allowed to eat their “lunch” OR they could be asked “What should we do about this lunch?” “In an ideal world how should it be distributed?” and encouraged to share the food.

B) Defining Moments – Understanding the Vocabulary of Food Security
- Put up the overhead of definitions revealing them one at a time to discuss. Some questions for discussion starters:
  - for each category, ask if your group would fit into it? Give some examples of where/when this takes place locally? Globally? What are the consequences? Short term? Long term? What can be changed?

  Defining Moments – Understanding the Vocabulary of Food Security

**Food security** exists when all people, at all times, have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life. (FAO)

**Food insecurity** is a condition, in which people lack basic food intake to provide them with the energy and nutrients for fully productive lives. (Hunger Task Force)

**Undernourishment** refers to the condition of people whose dietary energy consumption is continuously below a minimum dietary energy requirement for maintaining a healthy life and carrying out a light physical activity. (FAO)

**Transitory food insecurity** is a temporary or seasonal shortage of food because of unexpected factors for only a limited period. Seasonal undernourishment occurs in many poor countries usually in the months just before the coming harvest. Temporary undernourishment occurs when people have no access to food for a short period of time. People become weakened as a result of not having had adequate food for days.

**Chronic food insecurity** results in **chronic undernourishment** which is the on-going condition of consumption below the minimum dietary energy requirement for maintaining a health life and carrying out light physical activity. It is related to life-long poverty. The effects of chronic undernourishment include: high infant-mortality rates; vulnerability to common illnesses; increased risk of infection; acute vulnerability in times of disaster; impediments to development caused by stunting.

**Stunting** is the body’s response to chronic undernutrition and malnutrition by decreasing body size. This process starts *in utero* if the mother is undernourished or malnourished and continues through approximately the third year of life. It leads to higher infant and child mortality, but at rates far lower than during famines. Once stunting has occurred, improved nutritional intake later in life cannot reverse the damage.

**Famine** is an absolute lack of food affecting a large population for a long time period often resulting in mass migration and death. Famine is a disaster of food insecurity.
Minimum dietary energy requirement refers to the amount of dietary energy per person, in a specified age and sex group, that is considered adequate to meet the energy needs for maintaining a healthy life and carrying out a light physical activity.

**Topic: Local Foods**

There are two meanings of this word that need to be distinguished: 1) to argue in the sense of to fight or to emotionally disagree; and 2) to give reasons for or against a proposal or proposition. In emphasizing critical thinking, we continually try to get our students to move from the first sense of the word to the second; that is, we try to get them to see the importance of giving reasons to support their views without getting their egos involved in what they are saying. This is a fundamental problem in human life. To argue in the critical thinking sense is to use logic and reason, and to bring forth facts to support or refute a point. It is done in a spirit of cooperation and good will.

1. Students working in small groups are given quotes from “Worldwatch Paper #163: Home grown: The case for local food in a global market”. For example: ...

   reliance on long-distance food ... creates numerous opportunities along the way for contamination, while contributing to global warming, because of the huge quantities of fuel used for transportation.

   Locally grown food served fresh and in season has a definite taste advantage. It's harvested at the peak of ripeness and doesn't have to be fumigated, refrigerated, or packaged for long-distance hauling and long shelf-life.

2. Students are directed to identify the “pro” arguments for the quotes they have been given and chart paper with the following headings:
   What is/are the arguments?
   What is/are the underlying values?
   What are consequences of accepting this argument?

3. Student groups present their work and then are assigned to research counter arguments.

4. Students fill in a consequences chart of selecting or not selecting local foods. (see Appendix)

[This is a modified section from a lesson plan prepared for Global Education Teaching Resources, a Global Classroom Initiative, British Columbia Teachers’ Federation, http://bctf.ca/DBSearch.cfm?page=GlobalEd click on Home Economics, lesson title What’s in Your Grocery Bag]
An Example of Issue Analysis
Topic Recycling Blue Jeans

1. In small groups, give each group an information card such as:

Denim jeans are made from cotton. Cotton crops cover 34 million hectares, more than 5% of the world’s land surface in some of the world’s hungriest countries. A large chunk of the fertile land is used for production of cotton as a cash crop for export.

Garment workers are regularly denied the right to organize. In some cases armed guards and repressive management techniques (yelling, hitting, sexual intimidation) are used to stop workers from getting together to discuss improving their workplace.

Faded and stone washed denim requires a substantial amount of water, depleting supplies of this increasingly scarce resource. For stone-washed denim, the "stones" are actually volcanic pumice. Extracting of pumice lays waste to the places where it is mined. The pumice dust is a major pollutant in water discharged from the apparel plants into rivers.

Approximately ten million tons of textile waste is currently dumped in Canada, Europe and America each year.

2. As a group they are to decide whether the information has to do with:
• The agricultural side of cotton production
• Transforming cotton fibres into denim
• Manufacturing jeans
• What happens with textile waste and old jeans

3. Then students decide
• what specifically is at issue (i.e. Is it an environmental issue concerning pollution of water supplies? Is the issue about fair (or unfair) labour practices? Is it a land issue, i.e. is land being used for cotton production when the country or area is in desperate need of food?).
• the consequences (encourage students to think of both themselves and others, e.g., cheap labour means cheap jeans for them but lives of poverty for the textile labourers who can never hope to buy what they sew).
• the alternatives (encourage students to think broadly and identify alternatives for all 4 - agriculture, production of cloth, production of clothing, textile waste)

[This is a modified section from a lesson plan prepared for Global Education Teaching Resources, a Global Classroom Initiative, British Columbia Teachers’ Federation, http://bctf.ca/DBSearch.cfm?page=GlobalEd click on Home Economics, lesson title What Makes Your Blue Jeans Blue?]

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An Example of Teasing out the Arguments

Topic: For and against genetically modified organisms

1. Either individually, or in groups, students are given a paragraph or statement to read and identify “what” is the position regarding genetically modified foods (for or against); “why,” or the reason(s) for holding this position; and what is assumed. While students are reporting, the teacher, or designated students will make notes on a T-Chart (see appendix) with the following Headings:
   • Arguments for:
   • Arguments against
Examples of statements
• Farmers and environmentalists fear that wide use of Bt crops will lead to the rapid development (over the course, of perhaps, as few as three to five years) of resistance to the toxin. If resistance develops, the Bt toxin will be useless as a pesticide.
• Biotechnology companies often claim that genetically modified organisms (GMOs) are essential scientific breakthroughs needed to feed the world and reduce poverty in developing countries.
• Genetic engineering turns the seeds themselves into "intellectual property," so the farmers using the seeds don't legally own them.
• There's no way of knowing what the downstream effects will be or how [genetic engineering] might affect the environment.

[This is a modified section from a lesson plan prepared for Global Education Teaching Resources, a Global Classroom Initiative, British Columbia Teachers’ Federation, http://bctf.ca/DBSearch.cfm?page=GlobalEd click on Home Economics, lesson title Biotechnology, GMOs and Food]

An Example of Using Structured Controversy
Topic Labour Issues Related to Clothing Production

After studying the issue this activity is used at the end of the unit.
1. Identify the controversy—Be it resolved that all clothing labels include labour information (i.e., the factories where the clothing was produced and where).
2. Formation of groups—divide the class into groups of four or six. In each group identify students as A1, A2, A3 and B1, B2, B3. A’s are Pro. B’s are Con.
3. Time to plan. Each person will have to speak, so remind groups that they have to come up with enough points for each person.
4. Presentation of opening points—follow this order A1, A2, A3 then B1, B2, B3. (Remind students to take notes so they can plan a rebuttal.)
5. Preparation of rebuttal points—two-three minutes to plan
6. Presentation of rebuttal—B’s go first
7. Change sides and repeat
8. Have all students write a summary consisting of 4 paragraphs following this outline:
Paragraph one—explain the controversy
Paragraph two—give one point of view (i.e., some people think it is
important to include more information on clothing labels about labour
because....)
Paragraph three—give the other point of view (i.e., on the other hand some
people think add this information is a poor idea because...) Paragraph 4—indicate where you stand and why (i.e., I think....because....).

[This is a modified section from a lesson plan prepared for Global Education Teaching Resources, a Global Classroom Initiative, British Columbia Teachers’ Federation, http://bctf.ca/DBSearch.cfm?page=GlobalEd click on Home Economics, lesson title Assessing the Labour Behind the Label]

The International Code of Marketing of Breast-milk Substitutes
The World Health Assembly adopted this Code in 1981. The Assembly is the
policy setting body of the World Health Organization. The International Code aims to
protect all mothers and babies from inappropriate company marketing practices. The
Code does not ban the sale of baby milk, but addresses how it is marketed. It bans all
promotion of breast milk substitutes and bottles. It aims to ensure mothers receive
accurate information from health workers. Subsequent Resolutions of the World Health
Assembly have clarified and amplified the International Code.
Baby food companies may not:
• Give free supplies of baby milk to hospitals;
• Promote their products to the public;
• Use baby pictures or other idealizing picture or text on their baby milk and bottle
  labels;
• Give gifts to mothers or health workers;
• Give free samples to parents;
• Seek direct or indirect contact in any way;
• Promote baby foods or drinks for babies under 6 months old;
• Labels must be in a language understood by the mother and must include a
  prominent health warning. Companies are limited to providing scientific and
  factual information to health workers, who are responsible under the Code for
  advising parents. The Code is intended as a minimum requirement for countries in
  both the North and the South.

1. Give possible reasons for each of the above points in the International Code of
Marketing of Breast-Milk Substitutes:
• no free supplies to hospitals
• no promotion of their product
• no baby pictures on their product
• no gifts to mothers or health workers
• no free samples to parents
• no promotion of other foods for babies under 6 months
• clear labelling

2. What is the best food for baby? Why?

3. Give three reasons a family may have to use a breast-milk substitute.

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**B) Bottled Water Analysis Activity - Diamond Ranking**

• The last question on the quiz is a bridge to this activity, an exploration of the issues and concerns related to the soaring consumption of bottled water worldwide.

• In small groups, have students read each of the statements in the envelopes. Their task is to come to consensus on which is the most important/significant issue related to the consumption of bottled water from among the nine statements. This statement is put at the top of what will be a diamond-shaped arrangement of the statements. Next they decide which are the next two important/significant statements, and put them in the next row that becomes the second line in the diamond shape. The middle consists of three statements of mid-importance or concern. The next two statements are considered of lesser importance and placed at the line below the widest part of the diamond. The last statement should be the least important/least problematic to the students, and placed at the bottom to finish the diamond shape. To guide them, put the following diagram on the board or overhead:

```
   1
  3  3
 5  5  5
 7  7
 9
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• Once one group is finished, they join another group and compare their ranking lists. Encourage students to discuss why they have chosen the arrangements in the way they did, and try to convince others to see their rationale. Their task is to negotiate and come to consensus and display their new diamond ranking (only one set of statements is needed for this activity. The other is returned to the envelope).
• You may stop here or continue to combine groups to form larger groups who resume negotiating, come to consensus and display the new diamond ranking until there is one class consensus diamond. If you stop here, have the students paste the final consensus set of the statements onto a piece of chart paper, and with a marker, note the reasons for the placements.
• The diamond ranking chart/s can be presented and posted in the classroom.
• In debriefing note how different groups valued different factors (e.g., human rights, environmental concerns, economic values, etc.) and revisit the question “How can we ensure that everyone has access to clean, affordable drinking water?”

References

http://www.criticalthinking.org/resources/k12/TRK12-strategy-list.cfm

The Critical Thinking Community (The Foundation and Center for Critical Thinking at Sonoma State University). A comprehensive site that contains online resources for teaching critical thinking at any level, including links to numerous articles and handouts for faculty and students about all aspects of critical thinking. http://www.criticalthinking.org/
Appendix

Consequences Chart

Students using a consequence chart start with a ‘what if’ question or a problem, suggest possible solutions and then write the probable flow-on consequences of each solution to assist in making a final decision.

T-Chart

Use this chart to classify ideas or issues supporting or negating a proposition.
Book Ends

Book Ends as a teaching activity begins with students reacting to statements about the information to be covered in the lecture, reading, video, or textbook, then revisiting their reactions later with either True or False. In a classroom situation you can include a partner or group discussion column before and after as well. The idea is to make predictions before an activity, then meet after the activity to review and compare reactions. In the "before" students write "T" if they believe the statement is true or write "F" if they believe the statement in the "statement" column if false. After the lecture, reading, video, textbook chapter, they complete the quiz again using the "after" column. If they believe the statement is true then they support it with a statement in the comment column. If they believe the statement is false they write the correct information in the comment column.

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<th>Comment</th>
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Fishbone Strategy

This is an example of the fishbone strategy, a graphic organizer that is suitable for debating an issue with positive and negative aspects. All positive points can be put above the backbone; all negative points below. To summarize, have students write a response about the complexity of the discussion topic.
Placemat Strategy

Purpose:
The placemat activity is a cooperative learning strategy where students can brainstorm individually and then bring all their ideas together into small groups for one common idea.

OR

The placemat can be used as a tool to show the knowledge and higher order of thinking that a student has acquired from a lesson or unit.

Procedures:

GROUP
1. Students create their placemat template. They can use one provided or make one themselves. In a group setting it would be divided up by however many students are in the group. If individual work, then the student can decide how many spaces they want.
2. Each member produces their own thoughts and ideas on a topic in their designated section of the mat.
3. Ideas are shared within the group once individual brainstorming is complete. The student’s common points are summarized and put into the centre of the mat.
4. Groups can then share with the class what the group findings were from what is written in the centre area of the mat.

INDIVIDUAL
1. Students are given a topic area to brainstorm about.
2. Divide the mat into the desired sections.
3. Each section should be filled with ideas by either pictures or words to describe the desired knowledge the student has acquired from the topic.
4. The centre area of the placemat is the topic or unit being brainstormed

Suggestions for Follow-Up:
The placemat can be used to generate discussion among the class about the topic at hand. It can also be used as a follow-up tool. The placemat can help students organize their knowledge and understanding of a unit as a source of assessment or even a studying strategy to prepare for an end-of-unit test.