

Chapter Six

Assessment and Evaluation in Home Economics: In What Ways Can We Gather Evidence of Learning?

How can we make our assessment and evaluation more authentic?

In what ways can students be involved in assessment?

In order to present a fair evaluation of students, teachers must provide a broad range of evidence to determine and justify their grades. The terms assessment and evaluation are often used interchangeably in discussions about a student's educational progress. Assessment is frequently described as having three purposes: *for* learning, where the evidence gathered assess in planning for instruction; *as* learning, where student learn about their learning and how to improve it; and *of* learning, where the evidence gathered is used to inform parents of student progress. The latter is also called evaluation as in the process of analyzing the evidence involves interpreting and making a judgment. Reporting is the presentation of the information gathered through evaluation. In this chapter we will concentrate on the various ways and dimensions of gathering evidence of learning (see Fig. 6-1).

The Curriculum/Assessment Framework

A conceptual framework for assessing the progress of learners in home economics is presented in Figure 6-1.

Before determining how you will assess the progress of your students, you need to have a clear idea of your **curriculum intentions**. What are the learning outcomes you hope to achieve? What are your objectives? What are the “big” ideas you want students to take away from your lessons, units, course plans? The assessment strategies you choose will be designed to determine whether the learning experiences and instruction you have planned have achieved the desired results. It is useful to keep in mind that student learning is best supported when instruction and assessment are based on clear learning goals and when assessment is planned concurrently and integrated seamlessly with instruction.

Four key questions need to be addressed: what evidence of learning will be collected? what activities will facilitate assessment and provide evidence of learning? how will the evidence of learning be recorded? and who will participate in collecting evidence of learning?

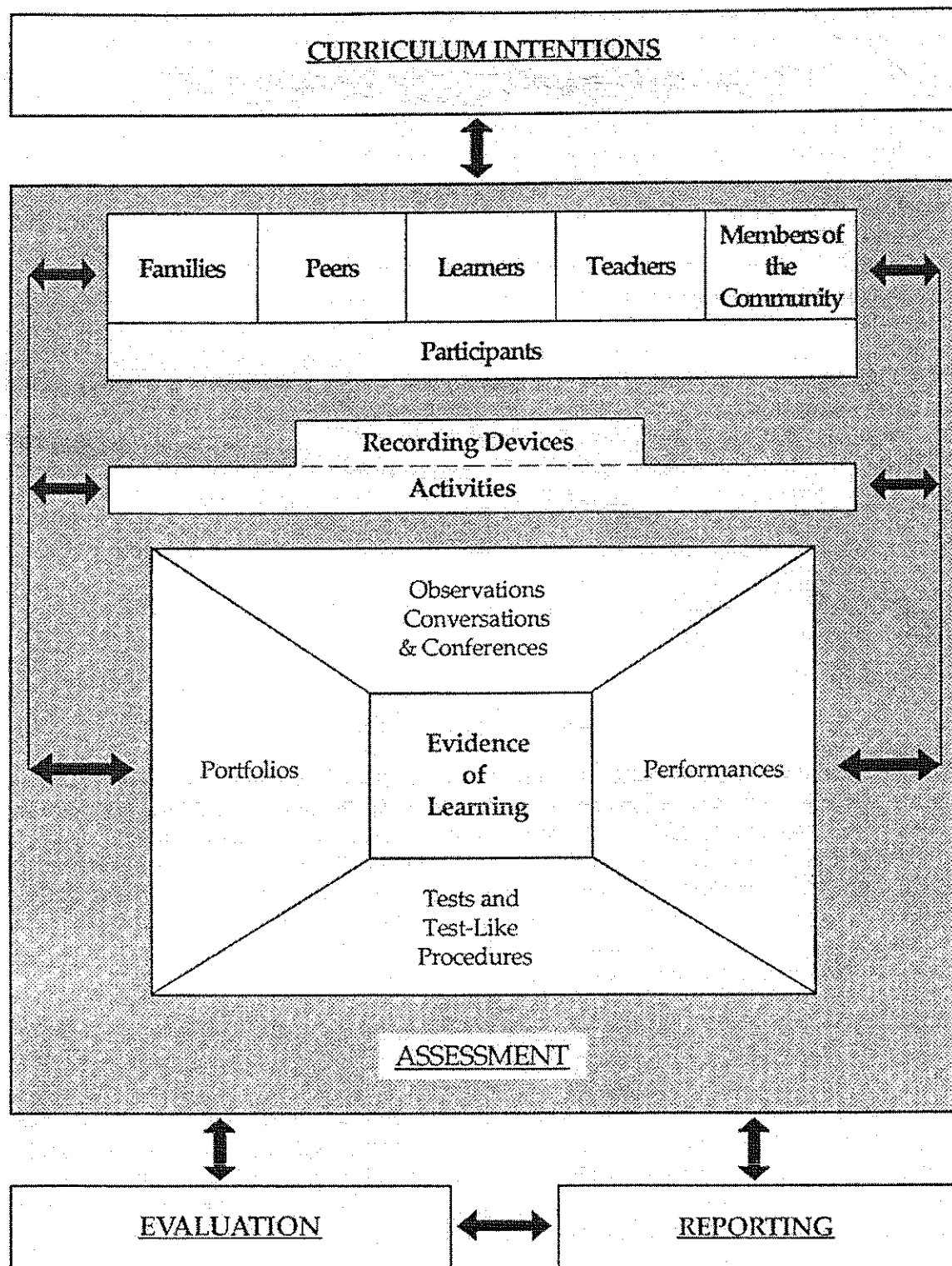


Figure 5 – 1. The Curriculum/Assessment Framework (Favaro, Paris, Smith & Thomas, 1993)

Dimension 1. Evidence of Learning

Different types of evidence of learning can generally be categorized in four ways.

a) Observations, Conversations, and Conferences.

Observations essentially involve watching learners. All teachers do this daily and often unconsciously. Such observations are generally informal, that is, the teacher is not “looking for” or “looking at” anything specific, but just notices what the learner is doing and how the learner is behaving.

Observations can also be formal and systematic. The teacher plans to observe the learner in particular situation or activities and records these observations. Examples might be a lab evaluation checklist or note-taking form that is completed while students are participating in a food preparation or experiment (see examples in Appendix); or a checklist for monitoring a class discussion; or a rubric for observing a student presentation. Audio and video tapes and photographs can be used as forms of observation.

Conversations and conferences involve both *listening to* and *talking with* students. Teachers have an opportunity to understand a student’s learning and thinking, and students have an opportunity to reflect upon and demonstrate their knowledge. Conversations and conferences are useful for: clarifying thinking; reflecting on what has been learned; helping to achieve new levels of understanding; assisting in self-evaluation; discussing expectations for quality performance.

b) Performances and Performance Tasks or Projects

A performance or performance task or project (sometimes referred to as authentic tasks) is an opportunity for the learner to craft knowledge, skills and attitudes into a complete package or an integrative product with individual style. It should be worthwhile and significant and have value in the learner’s life. Typically an audience is identified. A performance implies: knowledge in use; rehearsal, refinement, revision, self-assessment; demonstration of certain standard or mastery; or a sustained work within a meaningful context.

A performance could be a single event, but is of greater value when viewed as multiple opportunities to contribute to a culminating activity. Some examples include: designing and preparing a menu for a specific audience; designing and producing a video of a commercial or news report; creating a game to teach the topic to others; preparing and editing a newspaper or magazine; organizing a community project or a school event; preparing an oral report, drama or exhibition; planning and conducting an experiment; participating in a debate; creating a website; writing an essay, poem or a song; creating an exhibit.

c) Tests and Test-like Procedures

Tests have traditionally dominated educational assessment. However they are often flawed or misused. Sometimes they simply require students to memorize mindless atomistic bits of information. Sometimes they are poorly constructed. Perrone (1991) recounts an episode with a student who did not do well on a test. When asked about it, the student said that the teacher had not asked the right questions and then went on to say “if this question was asked...I would have been able to say...”.

The key question in developing tests is “What do we want learners to be good at?” For example:

- Should learners be proficient in identifying and spelling the parts of a sewing machine OR should they be able to thread and use the machine to repair a seam that has come undone?;
- Should learners be able to name all the nutrients and their function OR should they be able to design and prepare a nutritious snack?;
- Should learners be able to name and describe each of Erikson’s developmental stages OR should they explain the criticisms and possible limitations of his work?

There is still a place for pencil and paper tests but they should be designed so that they more closely resemble problems encountered in real life. Thus, a “test” might include such things as interpreting a recipe (see Appendix); writing a paragraph outlining different points of view (see Appendix); using a practical reasoning model to address a practical problem (see Appendix). Use the following questions as a guide when preparing a test:

- Are the questions, tasks, meaningful, realistic, and replicate problems encountered in real life?
- Have you emphasize thinking and application more than the possession information?
- Is the criteria, standards, mark value known in advance?
- Will students be able to use resource or reference materials, or notebooks, in completing the test?
- Has consideration been given to the fact that students are capable of generating test items and have they been encouraged to do so?

Most importantly, paper and pencil tests need to be well written so there is no ambiguity or confusion for students. The mark value of each question should be stated. The criteria for long answer questions should be stated. Do the test yourself, or have a friend or fellow teacher do it to ensure clarity.

d) Portfolios

A portfolio is a collection of work that supports the concept of continuous learning by storing evidence of progress and development over time. A portfolio must also include evidence of on-going reflection and evaluation of the learning represented in the collection. Some features of portfolios are:

- contains evidence of self reflection and justification for inclusion;

- has an explicit purpose and criteria; has continuous learner involvement in selection of pieces;
- can be used for planning for further instruction and learning; and
- is dynamic and changing.

The portfolio is something that is done by students, not to students. It offers a concrete way for students to learn to value their own work, and by extension, to value themselves as learners. Portfolios should include not only some products of learning (e.g., reports, posters, photographs of completed projects) but also items that reflect the process of learning (e.g., action plans, draft copies, learning log entries, photographs of project in process).

Dimension 2. Assessment Activities

A variety of techniques or procedures may be employed in gathering evidence of learning. When identifying such techniques, teachers will need to consider activities that are suited to students' particular learning styles and personalities. Students may have a role in determining what activities or techniques best represent what they know or have learned. Assessment activities include such things as records completed over time (e.g., learning logs, journals, daily in-class and homework assignments); demonstrations; pictorial displays; laboratory work; written work; oral presentations; performance tasks; tests; creation of products (e.g., food products; textile projects; Power Point presentations; pamphlets, posters, etc.).

It is important to note that many assessment activities are frequently used as instructional techniques. For example, a mind map may be used to determine prior knowledge or it could be used a way for students to demonstrate their understandings at the end of a unit. When activities are uses as instructional techniques the intent is for students to gain knowledge, skills and attitudes about a topic. As assessment activities, they become ways in which student may represent the knowledge, skills, an attitudes they have learned.

Dimension 3. Assessment Recording Devices

Recording devices are the means that teachers use to systematically document student learning. They may be informal (e.g., an anecdotal report of student progress) or formal. Formal documentation can take various forms but the most common are:

a) Checklists

Checklist are forms that have a list of qualities to be considered and checked off.

b) Criteria forms (Scorecards)

These forms have a list of characteristics or factors and possible point values that might be assigned to each.

c) Rating Scales

Have descriptions of various levels of quality on a continuum.

d) Rubrics

Rubrics are more sophisticated forms that identify the scoring guidelines and criteria on which students will be assessed. They contain a scale of different possible grades or points and give all the different traits or dimensions that will be examined and assessed and usually also include a weighting of all criteria.

[Note: some recording devices are a combination of some of these.]

Dimension 4. Participants in Assessment

Assessment does not have to be the sole responsibility of the teacher. It can include student self-assessment and peer assessment. It can include parent involvement (e.g., home labs; home laundry assignment). It can include community members (e.g., bringing in administration and local chefs to judge an “iron chef” competition; having members of the quilting guild assess students’ quilting projects; having parents provide feedback to students on a children’s party; having seniors give feedback on a luncheon prepared for them). As the range of participants in assessment expands, it is likely that more accurate and useful insights into students’ learning will be achieved.

Dimension 5. Evaluation

Evaluation refers to the process of judging the quality of student learning on and assigning a value (percent or letter grade) to represent that quality. Evaluation is based on assessment *of* learning. Evaluation requires teachers to take various considerations into account before making a decision about the grade to be entered on the report card. Evaluation involves considering all evidence collected and how the evidence will be weighted (e.g., in Food Studies, labs might be worth 50%, test and test-like procedures 25%, notebooks and assignments 25%; in Textiles, construction projects might be worth 60%, tests and test-like procedures 15%, and performances 15%; in Family Studies, tests and test-like procedures might be worth 50%, journal writing and daily assignments 25%, performance tasks and projects 25%). All the evidence of student achievement is taken into considerations and then teachers use their professional judgment to determine the student’s report card grade. The report card grade represents a student’s achievement of overall curriculum expectations, as demonstrated to that point in time.

Dimension 6. Reporting

Evaluation accurately summarizes and communicates to parents, other teachers, employers, post secondary institutions, and students themselves what students know and can do with respect to the overall curriculum expectations.

Although these dimensions are separated for the purposes of explanation they are not mutually exclusive. There is a reciprocal interactive relationship among them.

Further Reading

Chamberlain V. M. & Cummings, M.N. (2003). *Creative instructional methods for: Family & consumer science; nutrition & wellness*. Peoria, IL; Glencoe McGraw-Hill.

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Favaro, E., Paris, L., Smith, G., Thomas, J. (1993) Understand and assessin the progress of learners in home economics. *Proceedings of Canadian Symposium Issues and Directions for Home Economics/Family Studies Education*, pp. Calgary AB.

Lowe, V. & Howell, L. (1994). *How do we know they know? Alternative assessment in home economics*. Gainesville, VA:HEEA.

Peronne, V. (1991). *Expanding student assessment*. Alexandria, VA: Association for Supervision and Curriculum Development

Wiggins, G. & McTighe, J. (1999). *Understanding by Design*. Alexandria, VA: Association for Supervision and Curriculum Development.

Appendix for Chapter 6 – Samples of Assessment

Self-Assessment for Projects

Name: _____ Date: _____
Project Title: _____

By doing this project, I learned

I had difficulty with

I believe I followed instructions by:

My overall performance was

If I were to do it again, I would

The most enjoyable part of the project was

The part I liked the least was

I would have liked

Some thing(s) that would have made this assignment more meaningful to me are

Something I want noticed about my project is

Example of Self Evaluation of a Textile Project

Name _____

Grade 8 TEDDY BEAR SELF ASSESSMENT

- 1) Examine your teddy bear and give yourself a mark for the stitching, buttons, stuffing, and overall appearance.
- 2) In the space provided give the reasons for the mark you gave yourself.

STITCHING:

/10 _____

(for example, neat, small stitches that do not show, no dangling threads or knots showing, nice and tight so that the stuffing does not come out, colour coordinates with fabric, or colour nicely contrasts with fabric and enhances the overall appearance)

BUTTONS: /5 _____

(for example, well secured, thread is neat with no loops, stitches do not show, buttons with holes have been wrapped to create a shank)

STUFFING: /5 _____

(for example, ears, arms and legs are stuffed as well as the body, the stuffing is even)

OVERALL APPEARANCE: /10 _____

TOTAL: /30

Example of a Daily Log

Name _____

STUDENT PARTICIPATION AND REFLECTION RECORD

Rate your participation in this class using a scale from 0 to 5. Consider the following criteria when you rank your work.

Were you:

- on time for class
- listening while teacher or other classmates were speaking
- on task throughout the class
- contributing to class or group discussions
- able to finish assignments in the time allotted
- not asked to change your behaviour because it was disrupting others
- respectful of classmates, questioning ideas not people

Honesty is appreciated and valued. In the reflection box, write a sentence that explains why you gave yourself the rating you did. Also write at least two sentences describing your thoughts about the content of this lesson and one sentence about what questions you still have or what you would like to see included next time.

Date	Mark	Reflection

Example of a Discussion Checklist**Class or Small Group Discussion Checklist****DATE:****Students' Names**

Rating Scale: 1. Always 2. Usually 3. Seldom						
Voluntarily shares ideas or information						
Contributes ideas or information upon request						
Supports and elaborates ideas with facts or details						
Shows willingness to have ideas questioned						
Respects and listens to the ideas of others						
Questions or supports the ideas of others						
Considers facts and the views of others before reaching conclusions						

Example of a Checklist

Food Safety in the Classroom Checklist

Name of Student: _____

Without having to be reminded, student:

- ☐ applies 30-second rule for washing hands
- ☐ ties back hair
- ☐ puts on apron
- ☐ sanitizes work surfaces
- ☐ washes dishes in order
- ☐ uses 45 degree C water for washing and rinsing dishes
- ☐ uses dish soap and drain racks appropriately
- ☐ uses clean towels for drying
- ☐ uses appropriate procedures to clean up spills and broken glass
- ☐ sweeps work area appropriately
- ☐ takes care of laundry

Notes: _____

Observed by: _____

Date: _____

Example of Self, Peer and Teacher Assessment

TEXTILES AND FASHION

NAME _____

Description of the Project _____ (type of garment and fabric)

Marking Criteria:

- 0 -1 rushed work or incorrect procedure
 2-3 an effort is made but work is uneven and procedure is barely correct
 3-4 satisfactory appearance, neat, has followed procedure
 5 very well done, neat, procedure is absolutely correct, extra effort has been made to be perfect

Use your Instruction Sheet and write down the key technique of each of the steps, for example, staystitching, reinforcing stitching, darts, side seams, pockets, casing, drawstring, zipper, buttonholes, hem, attach collar, top stitching, shoulder seams, etc.

Technique	My Mark	Partner's Mark	Teacher's Mark	Comments
Preshrink/pretreat fabric				
Layout pattern (check grainlines)				
Cut out pattern pieces				
Transfer markings				

Example of a Peer Assessment Form**Peer Assessment Form for Group Presentations****Instructions**

- Judge the presentations of your peers by circling the appropriate number in each category (1 = lowest, 4 = highest).
- Treat your peers honestly and fairly.
- Add up the total for each presentation.

CRITERIA

- **PRESENTATION:** STUDENTS WERE RELAXED AND AT EASE, KEPT EYE CONTACT, WAS AUDIBLE, ENTHUSIASTIC, AND CLEAR.
- **KNOWLEDGE:** INFORMATION WAS ACCURATE AND INTERESTING; STUDENTS WERE ABLE TO ANSWER QUESTIONS; AND PRESENTED IN AN ORGANIZED MANNER.
- **ORGANIZATION:** PRESENTATION WAS WELL-PLANNED, UNDERSTANDABLE (INTRODUCTION/BODY/ CONCLUSION).
- **TIME MANAGEMENT:** PRESENTATION WAS WELL-PACED; WAS NOT SHORTER THAN THE MINIMUM TIME; DID NOT GO OVER THE ALLOTTED TIME.

Assessment Criteria						
Group #	Topic	Presentation	Knowledge	Organization	Time Management	Total
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	

Example of a Rubric Rubric for Research Assignment

Criteria	5	4.5	4	3.5	3	2.5	2	1.5	1	0
Depth and Breadth of Research a) Content X 10	Offers extensive information under subheadings.		Offers information under sub-headings.		Offers some information under some sub-headings.		Information too brief and incomplete. Sub-headings not used and several aspects not included			
b) Application of Information X 5	Makes many connections to course content and main objectives of the unit.		Makes some connections course content and main objectives of the unit.		Very few connections to course content and main objectives of the unit are offered.		Little or no effort to link information to course content and main of the unit.			
c) References	Uses 3 or more references. References are cited correctly in the bibliography including author, title, publisher, and date of publication.		Uses two references. References are cited in the bibliography with minor errors or omissions.		Uses only one reference. Reference is cited in the bibliography but some bibliographic information is missing.		No references. No bibliography.			
Written Communication a) organization	Well organized, includes an introduction, sub headings, and a conclusion. Message is easily understood.		Somewhat organized, includes an introduction and a conclusion but no sub headings. Message is vague at times.		Disorganized in parts, no clear introduction, sub headings and conclusion Message tends to be disjointed.		Presentation is unorganized. Message is unclear.			
b) accuracy	Grammar, punctuation, and spelling are all correct.		Some minor mistakes in grammar, punctuation and spelling.		A few mistakes in grammar, punctuation and spelling.		Too many mistakes in grammar, punctuation and spelling.			
Presentation a) creativity	Imagination & originality displayed in use of findings and resources, e.g. pictures		Adequate originality in presentation.		Some originality displayed.		No effort to be creative or original.			
b) neatness	Project shows attention to details, e.g. a title page, highlighted headings, neat writing/ typing, trimmed pictures, etc.		Project is neatly displayed.		Some effort at neatness shown.		Very little effort to present the report neatly is shown.			

Total /100

Comments:

Example of Involving Parents in Assessment

Home Economics 8 Name _____ Block _____

HOME LAUNDRY ASSIGNMENT

DATE ASSIGNED _____

DATE DUE _____

This assignment is designed to see how well you do at reading the labels, removing stains, organizing clothing for laundering and actually doing the laundry. If you have not operated the washing machine and drier in your home then please consult your parent or guardian for instructions before beginning this assignment.

It is expected that you will do the family laundry on one occasion before the end of the Home Economics portion of Life Skills 8.

PARENTAL EVALUATION:

Note to parents and guardians:

Please write a short paragraph in the space below describing your son's or daughter's experience with the task of doing the family laundry. Were you satisfied with their performance? Why? or Why not?

Please sign here: _____

Thank you for cooperating with the Home Economics portion of Life Skills 8.

Examples of test questions that are require students to apply their knowledge:

1. Write a paragraph using the following format:

To make the food system more sustainable I recommend that government and those making food policy _____ (*describe action*) _____ (2).

The consequences of this action would be _____ (*list, describe consequences*) _____ (5).

My reasons for this approach are _____ (*give at least one*) _____ (2).

As a citizen and a consumer to make the food system more sustainable I can _____ (*describe at least one action*) _____ (2).

The consequences of this action would be _____ (*list/describe consequences for self and others*) _____ (5).

My reasons for this approach are _____ (*give at least one*) _____ (2).

2. Answer these (recipe questions): [note to teacher: choose a recipe similar to but not necessarily identical to one used in class and insert above these questions]

- A. What ingredients would most likely be on hand (use the foods room as your “kitchen”)?
- B. What ingredients would you have to check to see if you have any of this item on hand?
- C. What’s the difference between Ingredients A and B?
- D. What equipment would you need for the recipe?
- E. What items could you prepare ahead of time?
- F. Does the oven need to be pre-heated? If yes, to what temperature?
- G. Does a pan need to be prepared ahead of time? How?
- H. How long does the item need to cook/bake?
- I. What are possible safety hazards in this recipe?
- J. What are some serving suggestions for this recipe?
- K. What ingredients could you add or change to vary this recipe?