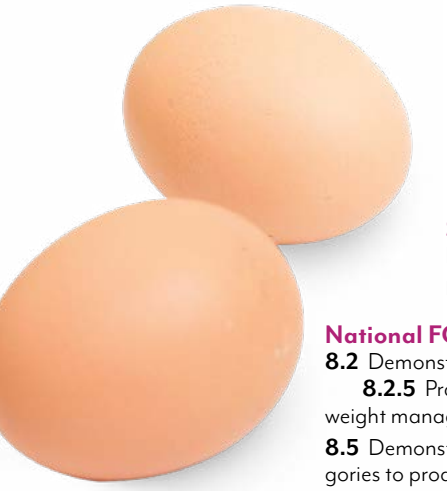
Nasco education **LESSON PLAN**

K TO Career solutions

FCS

EGG-CITING BREAKFASTS

Volume 38 / Middle School



HOME BAKING ASSOCIATION HomeBaking.org

Lesson Developed by Delaine Stendahl,
Home Baking Association Educator Award Winner,
Family & Consumer Sciences and Health Sciences Instructor

Summary of the Baking Lesson:

Focuses on the use of eggs in breakfast items and the role eggs play in food preparation.

National FCS Standards:

8.2 Demonstrate food safety and sanitation procedures.

8.2.5 Practice good personal hygiene/health procedures, including dental health and weight management and report symptoms of illness.

8.5 Demonstrate professional food preparation methods and techniques for all menu categories to produce a variety of food products that meet customer needs.

8.5.3 Utilize weights and measurement tools to demonstrate knowledge of portion control and proper scaling and measurement techniques.

Objectives:

Students will...

- Practice personal hygiene, sanitation, and safety in the lab.
- Use communication, problem solving, and teamwork skills to prepare a simple recipe.
- Identify proper measuring tools and measure ingredients correctly.
- Utilize eggs for a simple meal — muffins, pancakes, waffles, crepes, etc.

Materials List:

- *Just the Facts: Breakfast* DVD — WA26226
- Stainless Steel Bowls
- Measuring Spoons
- Dry Measuring Cups
- Liquid Measuring Cups
- Custard Cups
- Plastic Wrap
- Permanent Markers for Labeling/or Labels
- Potholders or Oven Mitts
- Turner
- Rubber Scraper
- Muffin Tin (standard 12-receptacle pan)
- Wire Cooling Rack
- Can Opener
- Muffin Recipe ("Best Loved Blueberry Muffins" recipe go to NascoEducation.com/lessonplans to download and print)

Suggestion:

Print and display in kitchens — How to Wash Hands (go to NascoEducation.com/lessonplans to download and print).

Day 1 — Introduction to Eggs and their Functions in Food Preparation

Introduction (5-10 minutes):

Set the stage by cracking an egg on a small dessert dish or in a bowl. Instruct the students on the parts of the egg. Eggs are used frequently in breakfast meals. In what ways are eggs incorporated in breakfast or brunch meals? *Possible Responses:* French toast, pancakes, waffles, crepes, fried, omelets, poached, scrambled, etc.

Activity — Video (30 minutes):

Introduce the DVD, *Just the Facts: Breakfast*, as a resource to instruct methods of using eggs and proper preparation.

Closure Activity — Think, Pair, Share (10-15 minutes):

Students draw a quick diagram of what they learned about eggs and breakfast foods, share with their lab partners, and post their thoughts for a gallery walk through the room. On the gallery walk, one member from each group shares three common points and another member shares three differences in the concepts identified.

Day 2 — Demonstration of Muffins

Introduction (3-5 minutes):
Who had breakfast today? Did anyone have a breakfast that was featured in the DVD yesterday?

Activity (35-40 minutes until the end of class):
1. Teacher demonstration/preparation of recipe featured in the DVD or the HomeBaking.org website such as:

- Pumpkin Pie Muffins
- Our Favorite Blueberry Muffins
- Whole Grain Blueberry Muffins
- Wheat Muffins
- White Whole Wheat Muffins

2. Once the teacher has demonstrated how to measure, mix, and portion muffins, students will utilize one of the resources below while muffins bake. Suggested options include:
- Baking Food Safety 101 (go to NascoEducation.com/lessonplans to download and print)
- Measure UP Worksheet (go to NascoEducation.com/lessonplans to download and print)
- Scoop, Spoon, Scale Activity (go to NascoEducation.com/lessonplans to download and print)

3. Teams review the teacher-selected recipe for lab.

4. Students sample the muffins.

Day 3 — Pre-Lab on Muffins

NOTE: The teacher will alter half of the recipes to omit the egg. This will be an experiment to determine the function of eggs in a recipe.

Introduction (3-5 minutes):
Last minute reminders and dressing/washing for pre-lab, not to eat raw batter, etc.

Activity (35-40 minutes until the end of class):
1. Students will measure out all ingredients for the muffin lab. They will properly measure and store each ingredient. (Cover with plastic wrap, label, and place on a tray for lab; refrigerate items as required for food safety, etc.)
2. Students wash dishes/tools used in the lab, return to proper location, etc., according to teacher expectations.

Key Concepts Discussed by Teacher Include:
Measurement of liquid and dry ingredients, food safety with raw egg and flour products, sanitation and safety, teamwork, communication, etc.

Time Management Goal:
To measure all ingredients, store properly, and have kitchen unit in order before the end of the class period.

Closure (2-4 minutes):
Teacher conducts inspection of kitchens for lab dismissal.

Day 4 — Lab on Muffins

NOTE: Students are preparing muffins with standard and altered recipes to note the importance of egg in the recipe as a coagulation/binding agent. Students should draw these conclusions as they view and sample the finished product.

Introduction (3-5 minutes):
Last minute reminders and dressing/washing for lab, not to eat raw batter, to prepare the recipe exactly as directed, etc.

Activity (35-40 minutes until the end of class):
1. Students prepare for lab — hair restraint, apron, hand washing.
2. Students prepare assigned recipes and bring to demonstration table for sampling when completed.
3. Students sample the products prepared in labs. Discuss the differences between products prepared with and without egg.
4. Everyone helps to clean up the kitchen.

Key Concepts Discussed by Teacher Include:
Protein cookery, coagulant/binding agent, nutrient dense.

Time Management Goal:
To be able to sample the muffins by the end of the hour, it may be helpful for the instructor to preheat ovens just prior to class starting. Students should work quickly to get their products in the oven so muffins can be viewed, discussed, and sampled before the end of class.

Closure (2-4 minutes):
Teacher conducts inspection of kitchens for lab dismissal.

Additional Teacher Resources:
- *A Baker's Dozen* DVD — WA25733
- *A Baker's Dozen* Lab Manual, Lab 8 — WA27798
- *Baking Fundamentals* — WA32530
- Baking Science Evaluation (go to NascoEducation.com/lessonplans to download and print)
- Pumpkin Power Pancakes (Recipe available in English and Spanish) (go to NascoEducation.com/lessonplans to download and print)
- Host a "Maker Movement Portable Kitchen" event with Chocolate Whole Grain Waffles, an egg-rich experience! (go to NascoEducation.com/lessonplans to download and print)
- Find more resources and recipes at HomeBaking.org

Nasco education
1.800.558.9595
NascoEducation.com

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Best Loved Blueberry Muffins

Nothing is more special than the extra special treat of homemade muffins.

Preptime: 15 minutes
Baking time: 22 minutes

Ingredients:

Muffins:

- 1 cup milk 1/2 cup LAND O LAKES® Butter, melted
- 1 egg, slightly beaten
- 2 cups all-purpose flour
- 1/3 cup sugar
- 2 teaspoons baking powder
- 1 teaspoon salt
- 1 cup fresh or frozen blueberries

Topping:

- 1/4 cup LAND O LAKES® Butter, melted
- 1/4 cup sugar

Preparation: Heat oven to 375°F. Combine milk, 1/2 cup butter and egg in large bowl. Add all remaining muffin ingredients except blueberries. Stir just until flour is moistened. Gently stir in blueberries. Spoon butter into 12 greased paper-lined muffin cups. Bake for 22 to 25 minutes or until golden brown. Cool slightly; remove from pan. Dip tops of muffins in 1/4 cup melted butter, then in sugar. 1 dozen muffins

Tricks of the Trade: Store muffins in covered container up to 3 days or freeze in airtight containers up to 3 months.

Nutrition Analysis: One muffin provides 240 calories, 4 g protein, 15 g carbohydrates, 1 g dietary fiber, 13 g fat, 50 mg cholesterol, and 230 mg sodium.

Variations: *Lemon Blueberry Muffins:* Stir in 1 tablespoon grated lemon peel with the flour. *Raspberry-White Chocolate Chip Muffins:* Substitute 1 cup fresh or frozen raspberries for blueberries. Gently stir in 1/2 cup white baking chips with the raspberries. *Provided by Land O Lakes*

HOW TO WASH


1.
WET HANDS
2.
SOAP
APPLY SOAP
3.
BRISKLY RUB HANDS FOR TWENTY SECONDS
4.
SCRUB TWEEN FINGERS
5.
SCRUB FOREARM TO JUST BELOW ELBOW
6.
RINSE FOREARMS AND HANDS
7.
TOWELS
DRY HANDS AND FOREARMS
8.
TURN OFF WATER
9.
DISCARD TOWEL
© John Wise 1997

Home Baking Food Safety 101

Prepared by Sharon Davis, Family & Consumer Sciences Education, HomeBaking.org

The many benefits of baking at home, in the community or in the classroom include and rely on the science and math of food safety—cleanliness, time, measurement, and temperatures.

Step One: Review Partnership for Food Safety Education's "Core Four" http://www.fightbac.org/food-safety-basics/the-core-four-practices/

Step Two: Apply following ***home baking*** food safety practices

CLEAN: Replace kitchen cloths, towels daily; change baking mitts or hot pads after use and launder. Sanitize sponges daily.

Before baking, in this order:

- Tie back or cover long hair, remove jewelry
- Wash hands with warm water and soap
  Pictorial guide: http://www.homebaking.org/PDF/how_to_wash.pdf
- Put on a clean apron…clothes carry dirt from where you've been
- Wash counters; assemble ingredients/tools needed for recipe
- Re-wash hands as needed before you measure, mix or portion

After mixing, while products bake:

- Scrape batter/dough from mixing tools/bowls into trash
- Wash counters, appliance surfaces, tools in warm soapy water
- Wash hands before *packaging* cooled products
- Transfer flour and meal from store bags into clean food-safe containers
- Do not re-use plastic bags raw meat has been stored in--
  store baked goods in clean, food-safe packaging

SEPARATE: Follow storage and use rules for fresh eggs, egg substitutes and all perishable baking ingredients.
http://www.foodsafety.gov/keep/charts/eggstorage.html

- Shell eggs in a separate small bowl to avoid a broken eggshell in the batter
- Keep bowls and utensils used for eggs or mixing raw batter or dough separate from dry ingredients and dry measuring tools
- Chop/dice nuts, fruits or veggies for baking on cutting board reserved for ready-to-eat foods
- Place wire cooling racks on a clean counter away from where batter or dough are mixed

For More Great Food Safety resources…

Partnership for Food Safety Education, www.fightbac.org

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K-STATE RESEARCH & EXTENSION
FAMILY NUTRITION PROGRAM

Kids a Cooking
www.kidsacookin.org
Tips, Techniques, Recipes, Videos, Food safety--English & Spanish

Home Baking Food Safety 101

BAKE/COOK: Food safety experts agree that foods are properly cooked or baked when they are heated for a long enough time and at a high enough temperature to kill harmful bacteria that cause food borne illness.

➔*Never consumer unbaked (raw) ingredients, dough or batter. Salmonella and E. Coli are not a treat—skip tasting raw batter or dough or licking spoons, beaters or the mixing bowl.*

- Check to be sure product is done at center
- Brown crust color does not mean the product is done.
- Use a wooden pick to test product at center of pancakes, muffins, quick breads, and cakes for raw batter. Pick should come out with a few crumbs clinging to it, not wet batter.
- Oven-baked products: place food thermometer probe *at center* of product— wait until temperature maintains level on dial
- Product browned but not done? Lightly lay foil over crust to prevent over browning, continue baking product until center reaches internal temperature desired.

- **Egg wash glazes**:
  Prepare egg wash and apply ***just before*** placing product in heated oven; refrigerate egg wash if you will use within two hours, then discard.

Internal Temperature Guide: Use a probe food thermometer…temp at center

150 degrees F.
Cheese cakes—remove from oven to avoid cracking; temperature will rise

160 degrees F.
Quiche, meringue pies
Bread pudding, flan
Baked custard
Molten chocolate cake

165 degrees F.
Stuffing & casseroles
Leftovers; chocolate cream pie
Meat or poultry pot pies

170-175 degrees F.
Custard pies, flan,
Crème brulee', fruit pies

190 to 210 degrees F.
Yeast breads
Soft rolls-190 degrees F.
Crusty bread-210 degrees F.

200-209 degrees F.
Most cakes, cupcakes, quick breads, scones, pecan pie

Credit: Internal Temperatures, WhatscookingAmerica.net

CHILL: Keep refrigerator at 40 degrees F. or below with room for cool air to circulate.

- Refrigerate perishable ingredients, pies, cheese-filled breads or baked goods with perishable filling ingredients (eggs, custards, cheese, pizza, meats, casseroles, cream pies, puddings, crème puffs) – refrigerate within two hours of use, preparation or serving at room temperature
- Refrigerate custard, cream or egg fillings, batters, and dough if not baked within 2 hours. Cookie, scone, biscuit, pie and yeasted dough may all be refrigerated or frozen for later use-
- Learn more, Dough Sculpting 101 Tips and Techniques http://www.homebaking.org/PDF/doughsculpting101online.pdf
- Cool products on clean wire cooling racks, not in pans or on counter tops
  - Yeast breads, unless filled with perishable ingredients, should be stored 1 to 2 days at room temperature or frozen, NOT refrigerated
  - More Storage at-a-Glance information at http://www.homebaking.org/Lab13a.pdf

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HomeBaking.org

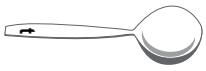
Prepared by Sharon Davis, Family & Consumer Sciences Education, HomeBaking.org

Name _____ **Date** _____ **Class** _____

Measure UP! Worksheet

Baking requires the most accurate measurements possible so the product turns out the same each time. Scales are most accurate, It is always best to use the fewest number of measuring steps or units possible for the most accuracy. EX: It is more accurate to measure ¾ cup flour with ½ cup + ¼ cup (I+K) than it is to use ¼ + ¼ + ¼ (K+K+K). Also, it's best to measure liquids with a liquid cup unless the recipe calls for less than 4 tablespoons (¼ cup).

A. tablespoon



B. teaspoon

C. ½ teaspoon

D. ¼ teaspoon

E. electronic scale

F. liquid measuring cup

G. hand

H. 1 cup

I. ½ cup

J. 1/3 cup

K. ¼ cup

L. 1/8 cup

Directions:

For each ingredient listed, write in the blank the combination of letters you would use for the BEST way to measure that ingredient. In some cases, two answers may work. List all the best options. Use the Measurement Guide for equivalents and abbreviation help.

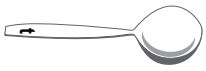
1. _____ 1 cup sugar
2. _____ 1 large egg
3. _____ 1 ½ tablespoon oil
4. _____ 4 tablespoon water
5. _____ 2¼ teaspoon dry yeast
6. _____ 2/3 cup cornmeal
7. _____ 2 tablespoons corn starch
8. _____ dash nutmeg
9. _____ 4 tablespoon corn syrup
10. _____ 1 pound powdered sugar
11. _____ 1 medium zucchini
12. _____ ½ cup moist raisins
13. _____ 3 tablespoons flax meal
14. _____ 3 teaspoons baking powder
15. _____ ½ cup butter/4 oz.
16. _____ 1 ½ cups (6 oz.) grated cheese
17. _____ 1 pkg (7g) active dry yeast
18. _____ 3 medium apples (1 lb.)
19. _____ 1, 11 oz. spice muffin mix
20. _____ ¾ teaspoon ground cinnamon
21. _____ ½ cup baking cocoa
22. _____ 8 oz. cheddar cheese
23. _____ 1, 15 oz. can pumpkin
24. _____ 1, 12 oz. pkg choc. chips
25. _____ 1/3 cup brown sugar
26. _____ 6 oz water
27. _____ ¾ cup baking mix
28. _____ 2 tablespoons butter
29. _____ 2 egg whites/2 oz.
30. _____ 115gm pastry flour
31. _____ 1/3 cup oil
32. _____ a pinch of salt
33. _____ ¾ cup milk
34. _____ 1 cup applesauce
35. _____ 4 cups (312g) rolled oats
36. _____ 1/3 tablespoon baking soda

Name _____ **Date** _____ **Class** _____

Measure UP! Worksheet Answer Key

Baking requires the most accurate measurements possible so the product turns out the same each time. Scales are most accurate, It is always best to use the fewest number of measuring steps or units possible for the most accuracy. EX: It is more accurate to measure ¾ cup flour with ½ cup + ¼ cup (I+K) than it is to use ¼ + ¼ + ¼ (K+K+K). Also, it's best to measure liquids with a liquid cup unless the recipe calls for less than 4 tablespoons (¼ cup).


A. tablespoon


B. teaspoon


C. ½ teaspoon


D. ¼ teaspoon


E. electronic scale


F. liquid measuring cup


G. hand


H. 1 cup


I. ½ cup


J. 1/3 cup


K. ¼ cup


L. 1/8 cup

Directions:

For each ingredient listed, write in the blank the combination of letters you would use for the BEST way to measure that ingredient. In some cases, two answers may work. List all the best options. Use the Measurement Guide for equivalents and abbreviation help.

1. H 1 cup sugar
2. G 1 large egg
3. A+B+C 1 ½ tablespoon oil
4. F (¼ cup) 4 tablespoon water
5. B+B+D or G 2¼ teaspoon dry yeast
6. J+J 2/3 cup cornmeal
7. L 2 tablespoons corn starch
8. G dash nutmeg
9. F (¼ cup) 4 tablespoon corn syrup
10. E 1 pound powdered sugar
11. G 1 medium zucchini
12. I ½ cup moist raisins
13. L+A 3 tablespoons flax meal
14. A 3 teaspoons baking powder
15. G (1stick) ½ cup butter/4 oz.
16. E or H+I 1 ½ cups (6 oz.) grated cheese
17. G or E 1 pkg (7g) active dry yeast
18. G or E 3 medium apples (1 lb.)
19. G 1, 11 oz. spice muffin mix
20. C+D ¾ teaspoon ground cinnamon
21. I ½ cup baking cocoa
22. E 8 oz. cheddar cheese
23. G or E 1, 15 oz. can pumpkin
24. G 1, 12 oz. pkg choc. chips
25. J 1/3 cup brown sugar
26. F 6 oz water
27. I+K ¾ cup baking mix
28. G 2 tablespoons butter
29. G or E 2 egg whites/2 oz.
30. E 115gm pastry flour
31. F 1/3 cup oil
32. G a pinch of salt
33. F ¾ cup milk
34. F or H 1 cup applesauce
35. E 4 cups (312g) rolled oats
36. B 1/3 tablespoon baking soda

Subject: Baking Measurements

Activity: Scoop, Spoon, Scale — Compare and evaluate dry measuring methods for accuracy.

Resources Required: One 5-lb bag flour—half left in bag, half in large bowl
Stirring spoon; straight-edged scraper; electronic scale; mixing bowl
Two, 1-cup dry measuring cups; one, 1-cup liquid measuring cup

Introduction: To get the same great product each time, how you measure matters. Compare and evaluate dry ingredient measuring methods for accuracy and impact on results.

Directions: Have three volunteers each measure 1 cup of the same flour, each using a different method. Weigh each cup of flour in a zero-balanced bowl on the scale.

Volunteer #1: Large bowl, spoon: Stir flour with spoon to loosen; lightly spoon flour into the 1-cup dry measuring cup until heaping full. Level off the flour using straight edge.

Volunteer #2: Scoop flour out of bag with 1-cup dry measuring cup; shake to "level"

Volunteer #3: Large bowl: Scoop flour with 1-cup liquid measuring cup, shake to level

Evaluate: What are the differences in weights between the three methods? What method do test kitchens and professional bakers use? (A: Method #1 and/or scales; 1 cup all-purpose or whole wheat flour = 4.25 oz)

Extra Minute? How much extra flour will you have if you use the method to measure 3 cups flour for bread? How will the extra flour impact the recipe's result? (A: heavy, dry, crumbly)

View "How to Measure Hour" 1-minute video at HomeBaking.org Glossary, Flour.

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U27883

Baking Science Evaluation

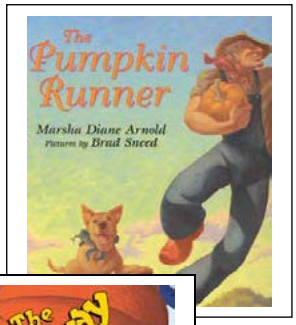
VARIATION	TEXTURE	TENDERNESS	AROMA	FLAVOR	COLOR
LAB 1 original					
LAB 2 _____					
LAB 3 _____					
LAB 4 _____					
LAB 5 _____					
LAB 6 _____					

HOME BAKING ASSOCIATION
www.homebaking.org

Pumpkin Power! Book and Bake

Pumpkin deserves a year-round place in classrooms, after school clubs, child care centers, camps and at home. A Native American food, it can

- Engage older youth to build younger children's literacy, food skills and healthy lifestyles.
- Provide educators links to literature, horticultural and nutrition science, measurement and health.
- Help youth grow and prepare an economical, under-served vegetable with a grain food they can enjoy again at home as a favorite for breakfast, lunch or dinner.



What you'll need: 45 to 60 minutes

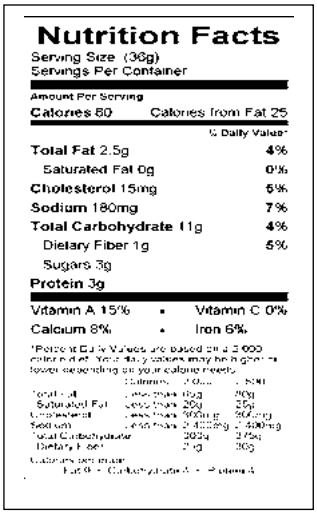
- Book: Pre-school: *The Runaway Pumpkin*. By Kevin Lewis
  Early Elementary: *The Pumpkin Runner* by Marsha Diane Arnold.
- A real pumpkin OR if unavailable, photos of pumpkins and canned pumpkin
- Clean table top or cover with cloth or paper
- Electric griddle(s) or skillet(s)
- Extension cord, duct or electrical tape to secure the cord (to avoid tripping)
  Pumpkin Pancakes ingredients (Double recipe makes 15-18 pancakes)
- Whisk. spoon, level edged knife or spatula
- Large bowl
- Dry and liquid measuring cups, spoons
- Vegetable oil for griddle
- Spatula to flip pancakes
- Plates, forks, napkins
- Applesauce, Pumpkin Butter, Fruit Sauce, Syrup or the ingredients to prepare them
- Sink or water and tubs plus dish detergent to clean up

→*Pumpkin Circle: The Story of a Garden* by George Levenson and Teacher Tube provide great visuals!
→The true story of *The Pumpkin Runner i*s a natural conversation starter about health and wellness.

1. Can a human really run all day? (Yes—African runners today, Native Americans throughout history…)
2. What else did the main character do that made him strong and healthy? (He worked hard farming/ranching/gardening—did he need to go to a gym to "work out?" No—he "works out" everyday on the sheep ranch!)
3. How much special equipment do we really need to be a runner? (Compare the different competitors)
4. Why was pumpkin such a great food for running? (Rich in complex carbohydrates and fiber—great long-lasting fuel—and pumpkin has no fat, sugar or cholesterol, just lots of minerals, Vit. A, C and E, calcium, iron, potassium, and more!)
5. How much exercise do we need everyday to be *basically* healthy?
   (One hour a day—60 minutes total—would be the basics. Walking, running, biking, working
6. How could you learn to grow pumpkins? (Find a Master Gardener or Jr. Master Gardener or 4-H program in your county. Start with the County or Area Cooperative Extension Office –Locate one at www.learningandlivingwell.org)

Getting Started! First read the story—then the recipe—top to bottom, out loud, together.

- **Wash hands, table.**
- **Assemble all the ingredients and equipment.**
- **Divide the tasks or prepare several recipes by working in teams.**


Nutrition Facts
Serving Size (36g)
Servings Per Container
Amount Per Serving
Calories 80 Calories from Fat 25
% Daily Value*
Total Fat 2.5g 4%
Saturated Fat 0g 0%
Cholesterol 15mg 5%
Sodium 180mg 7%
Total Carbohydrate 11g 4%
Dietary Fiber 1g 5%
Sugars 3g
Protein 3g
Vitamin A 15% • Vitamin C 0%
Calcium 8% • Iron 6%

Pumpkin Pancakes Makes 15, (1.3 oz/36g) pancakes

1 cup enriched all purpose *or* wholegrain baking mix*
¼ cup quick oatmeal OR whole wheat flour OR cornmeal OR flax meal
1 tablespoon dark brown sugar, firmly packed
¼ teaspoon ground cinnamon
1/8 teaspoon ground nutmeg
1/8 teaspoon ground ginger
¾ cup low fat milk
1 large egg, lightly beaten
¼ cup mashed or canned pumpkin
1 tablespoon vegetable oil or melted butter
*Jiffy Mix or Hodgson Mill InstaBake

Pumpkin Pancake Directions

1. In a medium mixing bowl, beat all ingredients together until well blended.
2. Brush the griddle or skillet with oil, and preheat until hot (375-400 ° F.).
3. Ladle or pour ¼ cup batter onto the griddle or skillet.
4. Bake until tops are bubbly and edges are dry. Turn 'cakes only once; bake until golden brown.
5. Serve with fruit sauce, applesauce, honey butter or syrup.

Serving options:

Fruit Sauce: With a hand blender puree one, 15 oz. can peaches or apricots, 1 small can mandarin oranges and 1 cup fresh or frozen berries

Honey butter: 1 stick butter creamed with 1/3 cup honey

Fruit Syrup: 1 cup light corn syrup + ½ cup fresh or frozen fruit Simmer 2 to 3 minutes.

Pumpkin butter: In a large saucepan/electric skillet, combine:1, 29 oz. can pumpkin puree, ¾ c. apple juice, 1½ c. granulated sugar, 2 tsp. cinnamon, ¾ tsp. *each* ginger and nutmeg, ½ tsp. cloves.
Slowly bring to boil and simmer while stirring, about 30 minutes (until thick). Serve or refrigerate when cooled.

Why not share your wealth!?

- Visit a retirement center and plant and care for pumpkins. Prepare pumpkin pancakes with a group. Need a partner to help? Consult a Cooperative Extension educator, master gardener or volunteer. →Locate at www.learningandlivingwell.org
- Plan an "Everyone Needs Pumpkin" food drive for the local food pantries. Ask a local club, cross country or athletic team to help by making a can of pumpkin a part of one of their event's admissions cost.
- Volunteer for a library reading program at school or the local library. If making the Pancakes is not possible, maybe the following pumpkin bread could be shared or the dry ingredients made into a mix and sent home.

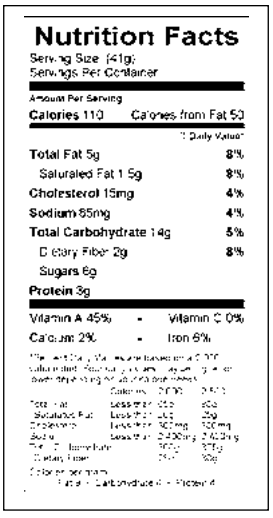
Pumpkin Wholegrain Bread (or Muffins) **Makes one large loaf/20, 1.5 oz. (41g) slices or 12 large muffins**

Ingredients

3 tablespoons butter
2 tablespoons vegetable oil
3 tablespoons flax meal OR wheat germ
2/3 cup packed brown sugar
1 large egg
1 cup canned pumpkin
½ cup low fat milk

Blend dry ingredients separately with wire whisk:

2 cups whole wheat flour*
1 tablespoon baking powder
1 teaspoon ground cinnamon
¼ teaspoon salt
¼ teaspoon baking soda
¼ teaspoon ground nutmeg
1/8 teaspoon ground ginger OR cloves



Options: ½ cup chopped walnuts OR raisins OR dried cranberries or cherries

Directions: Preheat the oven to 350 ° F. for loaf and 400 ° F for muffins.

1. Grease the bottom and lower sides of one, 8 ½ X 4 ½ -in loaf pan.
   Muffin option: Line 12 muffin cups with paper liners or spray bottoms of cups. Scoop batter into cups; filling each cup 2/3 full. Bake at 400°F.
2. Cream the butter and sugar together until smooth. Beating on medium high, drizzle in the oil and add the flax meal. Beat 2 minutes. Add the egg; beat until fluffy.
3. Add the pumpkin and milk; blend on low. Spoon in the dry mixture and mix on low just until blended. Stir in the nuts or dried fruit. (*Analysis at right used walnuts*).
5. Bake loaf in the center of the oven for 55 to 65 minutes—center tests done at (200-210 ° F). Muffins, 20-25 minutes, until golden and centers test done with a toothpick. Cool loaf 5 minutes; remove from pan and cool on wire rack. Wrap and freeze or slice.

*Use whole wheat flour, or Ultragrain® flour, www.ultragrain.com.

Visit www.homebaking.org and its links for more great pumpkin recipes, ingredients, mixes and Book and Bake Lessons!

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Book and Bake
Chocolate Whole Wheat Waffles

HomeBaking.org

Discussion guide… something for ages Pre-K to 18!

Copy the recipe for all, tools and ingredients (see side bar).
EXTRAS: U.S. map, food scale, internet access, a package w/price of 8-12 waffles.

- **History.** As U.S Minister to France, Thomas Jefferson returned with a waffle iron in 1789, serving waffles to many… Meriwether Lewis enjoyed waffles before the Lewis & Clark Expedition! Why would Mr. Jefferson NOT have served these waffles? **A:** Chocolate wasn't used in baking til 1832!
- **Math.** How many waffles does the recipe make? (12) and how much does each weigh (3 oz/83g)? What is the total *net weight* of the waffles the recipe makes? (A: 36 oz) How does the price of making your own compare with buying a package of frozen waffles? A : compare *net weight* and *price of purchased waffles* with the recipe's net weight: 2 lb. 4 oz (36 oz) and cost $2.10- 2.50
  How many grain servings in one waffle? (A: 1 oz=1 serving=3 servings)
- **Science.** State the *Question*. What makes the waffle light, not flat? Read the recipe together. What is their *hypothesis?*
  A: Gas bubbles produced by the l*eavening* (LEH-vuhn-ing) ingredients
  What is the *leavening* in the waffle and what gas does each type contribute? (A: Beaten egg whites (O_2 & CO_2); baking powder (CO_2)
- **Reading**. Read the *recipe* together, top to bottom. Take time to study the directions, terms. Before beginning, gather all *ingredients* and tools. Divide into teams and assign or ask teams self-assign prep steps.
- **Consumer science.** Compare ready-to-eat frozen waffles with Chocolate Waffles (**A:** Chocolate Waffles are 100% whole wheat; cocoa's has heart-healthy *flavanols*. Compare Nut. Facts: fat, sugars, fiber, protein, sodium, Vit. A, C, calcium, iron)
- **Creativity.** Use these terms in a mad-lib story or sentence!
  waffles… leavening… price… ingredients… flour… milk… cocoa… sugar…net weight… French… Thomas Jefferson… protein… whole grain… baking powder… beat… preheat… waffle iron… butter
- **Team work.** Describe how you can work together best to make great Chocolate Waffles. How can you divide clean up and baking?
- **Tech Time.** Learn more about flour, waffles, wheat flour and chocolate.
  How Flour is Milled. http://www.namamillers.org/education/kid-zone/
  Waffle history. http://bit.ly/1CPH6Qr
  Wheat Facts. www.kswheat.com and www.wheatfoods.org
  Online: The Field Museum On-line Interactive Chocolate Exhibit. http://bit.ly/1zhlRnZ

Book AND Bake Options:

- ***Beans to Chocolate.*** How Things are Made. Inez Snyder.
- ***Grandma's Chocolate.*** Mara Price. (Spanish/English)
- ***Smart About Chocolate***. Sandra Markle. (K and up)
- ***DK Readers: The Story of Chocolate***. C. J. Polin (Gr. 2 and up)
- ***Charlie and the Chocolate Factory***. Roald Dahl. (Many ages)
- ***Everything on a Waffle***. Polly Horvath. (Many ages)

What you'll need.

Pre-K to 1st: Teams of 3-4 per aide
□ Tables/space, 6-12 teams
□ Aprons for each baker
□ 2 to 4 waffle irons/drop cords (Plug in at separate outlets)
□ 6 – 12 medium mixing bowls
□ 6-12 small glass or metal mixing bowls (to beat egg whites)
□ 6-12 wire whisks
□ 6-12 large mixing spoons
□ 6-12 dry measuring cup sets & measuring spoon sets
□ 6-12 liquid 2-cup measuring cups
□ 2-4 vegetable oil pastry brushes
□ Place tray or cookie sheet pan w/ ingredients for ***two*** teams:
- whole wheat flour (4 cups)
- all-purpose flour (2 cups)
- baking powder (1 can)
- granulated sugar (1 cup)
- Baker's cocoa, ½ cup
- chopped nuts (1 cup, opt.)
- small salt container
- 1% milk (4 cups)
- 4 large eggs (at room temp)
- 1 stick butter, cut in half
- ½ cup vegetable oil
- vanilla extract (2 tsp.)

□ Confectioner's (powdered)sugar
□ Sifter, serving spoons
□ Other topping options:
Vanilla low-fat yogurt, diced fruit
Cherry pie filling (warm to serve)
Fruit Syrup (www.karo.com)
□ Plates, napkins (no utensils)
□ Dishpans, cloths, drying space
□ Need gluten-free flour blend?
Go to: Gluten-free links at HomeBaking.org Glossary
Lesson: Baking for Special Needs
www.HomeBaking.org
Also: Gluten Free Waffles, www.argostarch.com

Lesson prepared by
Sharon Davis, Family & Consumer Sciences , HomeBaking.org
Pilot baked with Boys & Girls Clubs of Manhattan, KS

Chocolate Waffles

Step-by-Step

Tie back long hair

1. Store backpacks, coats, phones
2. Wash tables or counter and hands; put on aprons
3. Divide into teams as needed; one recipe serves 12.
4. Read recipe together--top to bottom.
5. Discuss how to share the tasks and begin.
6. Gather ingredients and equipment for each team.

Ingredients and Directions: Makes 12, 3-oz. waffles

1. In a medium-sized bowl, **whisk** together the **dry ingredients**:
   - 2 cups whole wheat flour* (fluff flour, spoon into dry cup, level off)
   - ½ cup granulated sugar
   - 3 tablespoons baking cocoa
   - 2 teaspoons baking powder
   - ¼ teaspoon salt
   - ½ cup chopped nuts (optional)
2. In a **2-cup liquid measuring cup** use whisk to mix until blended:
   - 1 ½ cups 1% milk
   - ¼ cup melted unsalted butter (***or*** ¼ cup vegetable oil)
   - ¼ cup vegetable oil
   - 1 teaspoon vanilla or almond extract
3. **Separate 2 large eggs****--add yolks to 2-cup measuring cup milk mixture; mix well. In a separate glass or metal mixing bowl, **beat** egg whites with clean whisk or electric mixers to form stiff peaks.
4. Brush the waffle irons with vegetable oil and **preheat.**
5. Stir the liquid mixture into the dry ingredient mixture just until blended well. With a large spoon gently **fold** the egg whites into the batter until they disappear. View how to "fold," at HomeBaking.org Glossary. http://bit.ly/1wEsmg2
6. If possible, warm a cookie sheet or plate to hold waffles in a 175° F. oven.
7. Scoop ¼-cup batter onto each waffle grid, close and bake as waffle iron directs.

Nutrition Facts

Serving Size (83g)
Servings Per Container

Amount Per Serving	
Calories 250	Calories from Fat 130
	% Daily Value*
Total Fat 14g	22%
Saturated Fat 4g	20%
Trans Fat 0g	
Cholesterol 50mg	17%
Sodium 170mg	7%
Total Carbohydrate 27g	9%
Dietary Fiber 3g	12%
Sugars 10g	
Protein 5g	

Vitamin A 4% • Vitamin C 0%
Calcium 8% • Iron 8%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:
Calories: 2,000 2,500

➔Serve waffles hot, sprinkled with confectioner's sugar, OR a drizzle of syrup OR Greek vanilla yogurt and warm cherries.

* an all-purpose gluten-free flour blend may be substituted
**OR, beat 2 whole eggs until lemon-colored; combine with milk mixture

One of 12 waffles, also provides 130 mg potassium, flavanols, 3 servings grain group and one full serving (16g) whole grains http://wholegrainscouncil.org/whole-grain-stamp

Lesson prepared by Sharon Davis, Family & Consumer Sciences Education, HomeBaking.org

Baking Glossary

All-Purpose Flour: Wheat flour milled from hard wheat or a blend of soft and hard wheat. Used in homes for some yeast and quick breads, cakes, cookies, pastries, and noodles. All-purpose flour may be whole wheat, bleached or unbleached, and enriched with four vitamins (niacin, riboflavin, folic acid, and thiamin) and iron.

Bran: The outer layers of a kernel of grain that lie just below the hull. Whole grain flour is about 14.5% bran. Bran adds dietary fiber, multiple nutrients, and antioxidants.

Degerminated: To remove the germ portion of a grain kernel, leaving bran and/or endosperm.

Eggs: In home baking, neither the shell color nor the grade of egg matter. The size standard recipes call for is large unless stated otherwise. Eggs perform many functions – leavening, binding, thickening, coating or glazing, emulsifying, moisturizing or drying, and adding color, flavor, and nutrients to the finished product. Eggs also may be used to retard crystallization in some frosting.

Emulsify, emulsifier: An ingredient such as an egg that, when beaten with two non-mixing ingredients like oil and vinegar, will hold them in a suspension so they do not separate.

Endosperm: The starch granules in grain embedded in gluten-forming proteins from which flour or meal is produced. 80-85% of a wheat kernel is endosperm. (See kernel of wheat illustration at right.)

Flour: Flour is a major ingredient in most baked goods. Although wheat flours are the most common and often essential flour to a product's quality, flour may be produced from many kinds of grains, potatoes, legumes, beans, and seeds. Example: Flour may be made from amaranth, brown or white rice, buckwheat, corn, oats, spelt, teff, quinoa, rye, sorghum, soybeans, and more. View grain milling at www.namamillers.org.

Food Label: The label on food products with specific information required by the Food and Drug Administration such as Nutrition Facts, an ingredient list, the manufacturer, net weight, and dates. For more about Food Labeling go to www.fda.gov.

Granola: Cereal mixture of toasted rolled oats, barley, or other grains, plus dried fruits, seeds, nuts, and sweeteners. View recipe at http://www.homebaking.org/foreducators/portablekitchen1.php

Gluten: A protein found in wheat and other cereal flours that forms the structure of the bread dough. It holds the carbon dioxide (CO_2) produced by the yeast and expands during fermentation. Gluten is developed when flour is combined with water and liquids, mixed, and kneaded. It provides the elasticity and extensibility (stretch) in bread dough. *Glutenin* and *gliadin* form gluten.

Gluten-Free: Grains, meal, mixes, or flours that do not contain gluten or the components of gluten, the peptides glutenin and gliadin. Some gluten-free grains or flours include amaranth, rice, corn, milo, sorghum, soy, and potato. For a complete list visit the Celiac Sprue Association's website at www.csaceliacs.org. For additional gluten-free baking resources and ingredients go to www.argostarch.com, www.foodallergy.org/recipes, www.hodgsonmill.com, www.homebaking.org, www.kingarthurflour.com, www.landolakes.com, www.rabbitcreekgourmet.com, www.redstaryeast.com, www.wheatfoods.org.

Ingredient List: Ingredients making up a food and appearing on a food label in order, most to least.

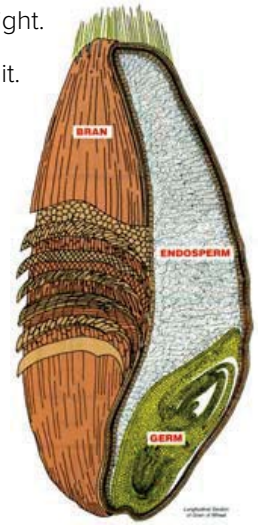
Net Weight: The weight of the contents in a package, excluding the packaging weight; the edible portion's weight.

Preheat: Heating an empty oven to the recommended temperature before placing the product to be baked in it.

Serving: A specific amount of food adequate for nutrition management and health. Serving sizes vary and g uidelines are offered on recipes or the Nutrition Facts Label.

Whole Grain: Using rolled or milled whole kernels of any grain (such as barley, corn, oats, wheat, rice, rye, sorghum, etc.) in a food. A food must be 51% or more whole grain to carry a whole grain label and may contain 8 g (½ serving), 16 g (1 serving) or more whole grain. Currently a minimum of 3 servings or 48 g whole grain is recommended. More resources at: www.bellinstitute.com, www.wheatfoods.org, and www.wholegrainscouncil.org

Whole Wheat Flour: Flour produced from the whole kernel of wheat—bran, germ and endosperm. Whole wheat flour is made from six classes of soft or hard wheat that may be red or white wheat varieties. Whole wheat flour may be coarsely to very finely milled. Whole wheat flour may also be labeled stone ground or graham flour. View resource at http://www.homebaking.org/PDF/BakingwithWholeWheatFlour101.pdf



Kernel of Wheat
www.wheatfoods.org

Source: Home Baking Association Glossary, www.homebaking.org

Bakers… Let's Wrap!

What we'll Learn.

McRel Education Standards: (www.mcrel.org/standards-benchmarks)
Writing: Apply writing strategies to write a wrap recipe. (Standard 1)
Reading: Use general reading skills to understand and interpret instructions. (Standard 7)
Listening and Speaking: Contribute to group discussion and asks questions (Standard 8)
Understand language reflects different regions and cultures.
Math: Use a variety of strategies in problem solving (Standard 1)
Select appropriate units of measurement (dry, liquid, temperature, length) (Standard 4)
Apply basic geometric language for shapes (Standard 5)
Science: Apply the function of the chemical leavening in foods (Standard 5)
Plan and conduct a measured investigation using appropriate tools and simple equipment
Identify nutrients in grain food and their functions in human health. (Standard 9)
Life work: Make effective use of basic tools. Prepare a nutritious food. (Standard 1)
Behavioral: Recognize group and cultural influences (food, beliefs) contribute to human development, identity and behavior. Recognize food offers commonality between cultures. (Standard 1)

What you'll Need:

Large bowl per person/group
Mixing spoon per person/group
Measuring cups (liquid & dry) and spoons
Flour, sugar, salt, baking powder, baking cocoa
Water, cooking oil, butter
Large eggs
Fork & bowl to beat eggs
Can opener
Kitchen scissors
Baking sheet pans
Crepe or sauté pans
Stove burners (crepes)
Griddle or skillet (tortillas)
Food wrap or bags
8-inch lengths of thick (1-inch) dowel rod for rolling

High Tech Tip:
Prepare dough or crepe batter with food processor.
Crepe and tortilla makers are available too.

"We are who we are for much more interesting reasons than our color."
James Earl Jones

Leader Qs:

Who's eaten a **wrap** eating out or at home? Wraps are made with flexible f**latbreads**—like tortillas, or crepes. It is a sandwich without __ __ __ __ __. (crust; leaks)
What culture brings tortillas to us? (Corn tortillas are most common in Hispanic cultures. Americans use more flour tortillas.)
Crepes (KRAYPS or KREHPS) are also a wrap. Crepe is the French word for pancake. The thin, light crepe may be a main dish or dessert. Have you ever tasted a crepe? They are easy to make too—they use flour, eggs, a little butter and milk.
What do you like to wrap inside a tortilla? (cheese, meat, beans, lettuce, tomatoes, bananas…)
What food group is a crepe or a tortilla found in? (Bread/grain)
Where can a wrap be eaten? (Almost anywhere!)
When would you eat a wrap? (Breakfast, lunch, snack, dinner—anytime!)
Why do people all over the world make flat breads like tortillas or crepes?
(Because… they take so little time to make and use very little fuel (wood, coal, gas, electricity) to bake on a hot pan... they taste so good and hold a variety of fillings—spicy, plain, sweet…you don't need a plate or fork!)
How many kinds of flat breads are there? Too many to name here! How long have people been making wraps? Thousands of years. Wraps have been around a very long time. Some flatbreads include lefsa (Norwegian), latkes (Jewish), focaccia (Italian) and pita or lavash (Middle Eastern), naan (Indian), blini (Russian). These may or may not be leavened. Some are filled, some served as a side dish.
How are tortillas and crepes made? **Let's find out.**

Flour Tortillas-- Makes 8, (2.5 oz) tortillas

Ingredients:
2 ½ cups unbleached all purpose flour (may use 1/3 whole wheat flour)
1 teaspoon salt
1 teaspoon baking powder
2 tablespoons shortening or vegetable oil (optional)
1 to 1 ¼ cups warm water
Cooking spray

Nutrition Facts:
One, 2.5 oz. tortilla provides
170 calories
Total fat 4g; Sat. fat, 0g
Cholesterol 0mg
Sodium 360 mg
Total Carbohydrate 30g
Dietary fiber 1g
Sugars 1g
Protein 4g
Vit. A 0%, Vit. C 0%
Calcium 2%
Iron 10%

Tortilla Directions:

1. In a large mixing bowl, blend the white flour, salt and baking powder.
2. Stir in oil and warm water until mixture is blended and sticks together. If dough is too sticky, add small sprinkles of flour and knead lightly to form a smooth dough ball. If dough is dry, add small sprinkles of water (1 teaspoon or dampen hands) and knead until moist.
3. Divide into 12 pieces; shape each into a ball. Let rest covered or in plastic bag for 15-20 minutes or up to overnight (refrigerate dough if kept overnight).
4. With a tortilla press or rolling pin flatten each ball into a thin circle about 8 to 10- inches across.
5. Spray a griddle with cooking spray; heat medium hot. Bake each tortilla about 1 ½ to 2 minutes per side. Tortilla will have brown speckled spots. Stack, cover and keep warm. **Source:** Hodgson Mill—www.HodgsonMill.com

Fruit Wrap Pies **Makes 12.**
Ingredients: 12, 8-inch flour tortillas, 4 large apples OR pears (or 8 medium peaches), 1/3 cup packed brown sugar, ¾ teaspoon cinnamon, ¼ teaspoon nutmeg, 1/3 cup milk.
Direcitions: Preheat oven to 350 degrees F. Warm tortillas for easier handling. Wash, peel and chop fruit into small pieces. Place ¼ cup of fruit on center of each tortilla. Sprinkle fruit with mixture of sugar and spices. Roll up (wrap the fruit. Place each wrap on Ungreased baking sheet and make small slashes on top for steam to escape. Brush with Milk and sprinkle again with sugar. Bake for 8 to 12 minutes, until lightly brown. Cool slightly!
Source: Kansas State U. Family Nutrition Program. www.kidsacookin.ksu.edu

Crepes Makes about 12 crepes
Ingredients:
1 large egg plus 1 large egg yolk
1 1/2 teaspoons sugar
1/2 cup flour
3/4 cup milk
2 tablespoons butter or margarine, melted
Vegetable oil

Instructions:
1. TO MAKE THE CREPE BATTER: With an electric mixer at medium speed, Beat together the egg, egg yolk, sugar, flour and 1/4 cup of the milk, until mixture is well blended. Beat in the melted butter and remaining milk to form a smooth batter. Refrigerate for at least 30 minutes or the batter may be frozen.
2. TO COOK THE CREPES: Lightly oil a skillet or crepe pan and heat to medium. Drop spoonfuls of the batter on the heated skillet or crepe pan and quickly spread the batter from the center in a circular fashion, using the underside of the spoon. Cook until the bottom side of the crepes are golden brown. Carefully turn crepes over to lightly brown the other side. Remove the crepes from the pan, stacking them on a plate. Use these basic crepes for a sweet or savory dish. **Source**: www.DianasDeserts.com

Wrap Explorations:

- Have a local friend or restaurant demonstrate making tortillas and wraps.
- Purchase masa flour and follow the package directions for corn tortillas.
- Bring favorite things to wrap—eggs, salsa, meats, grated cheeses, black, red and pinto beans,
- Visit www.kidsacookin.ksu.edu. Video or website in Spanish and English instructions
- Find many dessert crepe ideas: www.dianasdesserts.com.
- Hit the links at **www.homebaking.org**.
- Learn about ingredients. **Flours** and **cornmeal** (www.namamillers.org) and **eggs** (www.aeb.org)

Book it: *Betty Crocker's Kids Cook*. www.bettycrocker.com
Bread Bread Bread. By Ann Morris.
Everybody Bakes Bread. By Norah Dooley
Honest Pretzels. By Mollie Katzen
Marven and the Great North Woods. By Kathryn Lasky.

Cocoa Black Forest Crepes
Makes about 18 crepes
3 eggs
¾ cup water
½ cup light cream or half n' half
¾ cup + 2 tablespoons all-purpose flour
3 tablespoons cocoa
2 tablespoons sugar
1/8 teaspoon salt
3 tablespoons butter, melted
Cherry pie filling
Chocolate Sauce
Sweetened whipped cream
Sliced almonds to garnish
1. Combine eggs, water and cream with whisk or processor, blend 10 seconds. Add flour, cocoa, sugar, salt and butter; blend until very smooth.
Let stand at room temperature for 30 minutes.
2. Spray or oil a 6-inch crepe or sauté pan; heat over medium heat. Pour 3-4 tablespoons batter in pan; lift and tilt the pan to spread the batter. Return to heat; cook until surface begins to dry. Loosen crepe at edges; turn and lightly cook other side.
3. Stack crepes, placing wax paper between each. Keep covered if using immediately. Refrigerate for later use if desired.
TO Serve: Wrap each crepe around 2 tablespoons pie filling. Place seam side down and Garnish with with chocolate sauce, whipped cream and almond slices.
Chocolate Sauce: In small saucepan, stir together
¾ cup sugar and 1/3 cup cocoa. Add ¾ cup evaporated milk, ¼ cup butter, dash salt. Stir and cook until boiling over medium heat. Serve warm or store refrigerated.

Source:
www.hersheyskitchens.com