ACTION! ACTION! We Want Fractions!

Grade Level or Special Area: Second Grade
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Length of Unit: 5 Lessons

I. ABSTRACT
Fractions can be a very difficult concept for children to understand. This unit helps to make fractions concrete and tangible by utilizing strategies and activities geared toward learners of every type. From the visual models to kinesthetic explorations with pattern blocks, children will be fully engaged and become proactive participants in their own learning process. Children will be able to realize that fractions express a relationship between a part and a whole. Students will begin to see and apply fractions in their everyday lives as well as in other areas of mathematics.

II. OVERVIEW
A. Concept Objectives
   1. Understand a unit and its division into equal parts
   2. Understand and apply basic and/or advanced concepts of fractions and apply to other mathematical concepts.
   3. New York State Mathematics Standards
      Standard MST3: Mathematics
         • Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real world settings, and by solving problems through the integrated study of number systems, geometry, algebra, data analysis, probability, and trigonometry.
         • Students will understand the concepts of and become proficient with the skills of mathematics.
         • Students will communicate and reason mathematically.
         • Students will become problem solvers by using appropriate tools and strategies through the integral study of number sense and operations, algebra, geometry, measurement, and statistics and probability.

B. Content from the Core Knowledge Sequence
   1. Recognize these fractions as part of a whole, set or region and write the corresponding numerical symbols: 1/2, 1/3, 1/4, 1/5, 1/6, 1/8, 1/10. (page 56)
   2. Recognize fractions that are equal to 1. (page 56)

C. Skill Objectives (List specific skills to be taught in each lesson – and use the same ones from your lessons.)
   1. Divide an object into fractional parts
   2. Identify parts of a whole
   3. Distinguish numerator, denominator and fraction bar
   4. Compare pattern blocks to identify the whole (1) and fractions thereof
   5. Identify and order fractions from largest to smallest/smallest to largest
   6. Compare cubes and longs and pattern blocks to identify the whole (1) and fractions thereof
   7. Record/label corresponding numerical symbols for each fraction
   8. Determine equal shares by using manipulatives
   9. Explain results through drawings and writing
10. Translate equal sharing into fractions

III. BACKGROUND KNOWLEDGE
A. For Teachers
   1. Core Knowledge Teacher’s Handbook
   2. Core Knowledge Sequence
   3. What Your First Grader Needs To Know
   4. What Your Second Grader Needs To Know
   5. Everyday Math or other mathematics program utilized by individual school

B. For Students
   1. Core Knowledge Sequence Kindergarten Numbers and Number Sense
      a. Identify 1/2 as one of two equal parts of a region or object; find 1/2 of a set of concrete objects. (page 17)
   2. Core Knowledge Sequence First Grade Numbers and Number Sense
      a. Recognize fractions as part of a whole: 1/2, 1/3, 1/4. (page 35)

IV. RESOURCES
A. Core Knowledge Grade 2 Teacher Handbook
B. What Your Second Grader Needs to Know, pages 255-256
C. What Your First Grader Needs to Know, pages 243, 244
D. What Your Kindergartner Needs to Know, page 218
E. Core Knowledge Sequence
F. Overhead projector: Lesson One, Lesson Two, Lesson Three
G. Fraction transparencies: Lesson One, Lesson Two, Lesson Three
H. Word wall/vocabulary words/sentence strips: All Lessons
I. Pattern blocks: Lesson Two, Lesson Three
J. Longs and cubes: Lesson Three
K. Grapes: Lesson Five
L. Oranges: Lesson One
M. Knife (teacher use only): Lesson One
N. Rocks/Collection kits/Baggies: Lesson Four
O. Smiley face circles: Lesson Five
P. Post-its: Lesson Five
Q. Chart paper: All Lessons
R. Markers: All Lessons
S. Handouts/Worksheets (refer to Section VII. Handouts/Worksheets section): All Lessons
T. Read-Aloud: Caps for Sale: Lesson Four
U. Read-Aloud: The Doorbell Rings: Lesson Five

V. LESSONS
   Lesson One: Do You Want a Piece of Me? Fractions as Part of a Whole
   A. Daily Objectives
      1. Concept Objective(s)
         a. Understand the concept of a unit and its subdivision into equal parts
         b. NYS MST3: Mathematics
      2. Lesson Content
         a. Recognize fractions that are equal to one
      3. Skill Objective(s)
a. Divide an object into fractional parts
b. Identify parts of a whole
c. Distinguish numerator, denominator and fraction bar

B. Materials
1. Oranges
2. Knife
3. Chart paper and markers
4. Vocabulary words on sentence strips
5. Overhead projector
6. Transparencies
7. Appendix “A”

C. Key Vocabulary
1. Numerator: a number above the fraction bar identifying the part of the whole
2. Denominator: a number below the fraction bar identifying the total parts of the whole
3. Whole: the total pieces of an item or a group
4. Fraction: a part of a whole
5. Fraction Bar: the line dividing the numerator and denominator
6. Equal: of the same amount

D. Procedures/Activities
1. Have children come together in an area of the room
2. Take one orange out and ask the children if they would like to share it.
3. Ask the children how each child can get a piece of a whole orange.
4. Cut the orange into 3 uneven pieces and ask the children which slice they would like to have.
5. The children will likely notice they will not each get the same amount.
6. Ask them how we would be able to make the slices of orange fair and how they would have you cut the orange. Try to elicit equal parts.
7. If students are not able to use the word equal, introduce the new vocabulary word and explain what equal means. The word should be written on a sentence strip (later added to the math word wall).
8. Explain that today we will be reviewing what we learned about fractions in Kindergarten and first grade.
9. Hold up a sentence strip with the word fraction and ask the students to tell you what they know and want to know about fractions. Children’s responses are to be recorded on a KWL chart, which will later be utilized during final assessment.
10. At this point, show the children another orange and say, “This is a whole orange”.
11. Introduce the word “whole” on a sentence strip and give the definition.
12. Take the orange and cut it in half. Show students the two equal parts and refer back to the word equal on the sentence strip reminding the students that equal parts are the same size.
13. Two oranges should be shown side by side to compare the whole to the orange to the orange divided into two equal halves.
14. Show students a chart with visuals to help explain the functions of the numerator, denominator and the fraction bar. (Appendix “A”).
15. Hand out worksheet and explain to children it is now their turn “cut” their oranges.
16. Hand out worksheet and explain to children it is now their turn “cut” their oranges. (Appendix “A”)
17. Work together as a group on the first one and then move into tiered groups: Tier 3 work on work sheet alone, Tier 2 work with a partner, Tier 1 work as small group with the teacher.
18. Come back together and review answers.

E. Assessment/Evaluation
1. Ongoing throughout lesson via think, pair and share discussions, teacher directed questioning and student responses as well as teacher-student conferences.
2. Completion of worksheet and evaluation of student responses.

Lesson Two: Exploring Fractions (1/2, 1/3, 1/6)

A. Daily Objectives
1. Concept Objective(s)
   a. Understand a unit and its division into equal parts
   b. Standard MST3: Mathematics
2. Lesson Content
   a. Recognize fractions as part of a whole and write the corresponding numerical symbols: 1/2, 1/3, 1/6
   b. Recognize fractions that are equal to 1
3. Skill Objectives
   a. Compare pattern blocks to identify the whole (1) and fractions thereof
   b. Identify and order fractions from largest to smallest/smallest to largest

B. Materials
1. Pattern blocks (1 hexagon, 2 trapezoids, 3 rhombuses, 6 triangles for each partnership)
2. Overhead projector with whole and colored fraction transparencies (whole: 1 circle and 1 rectangle with different colors for each set of fraction pieces: halves, thirds and sixths)

C. Key Vocabulary
1. Numerator: a number above the fraction bar identifying the part of the whole
2. Denominator: a number below the fraction bar identifying the total parts of the whole
3. Whole: the total pieces of an item or a group
4. Fraction: a part of a whole
5. Fraction Bar: the line dividing the numerator and denominator
6. Equal: of the same amount

D. Procedures/Activities
1. As motivation, ask students if they would rather eat 1/6 or 1/3 of a chocolate bar.
2. Students should think for a moment, pair up with a partner to discuss their preference and share responses with the class.
3. Students should elaborate and explain why they made their choice.
4. Using the overhead projector, model 1/2, 1/3 and 1/6 with rectangle transparency to help students visualize the chocolate bar.
5. Ask students to think and pair with a partner to discuss their previous responses and whether or not they would keep their choice.
6. Ask students how many pieces they would get if they had the whole bar (thirds and sixths).
7. Using a circle transparency on the overhead, ask students how many pieces they need to divide the whole into halves, thirds and sixths.
8. Hand out pattern block kits to each partnership.
9. Ask students to find and hold up a hexagon.
10. Tell students this shape has not yet been divided.
11. Ask questions to elicit the hexagon is also the whole or one.
12. Ask the students to find and hold up a trapezoid.
13. Students should think and pair with a partner to discuss how many trapezoids is takes to create a hexagonal shape.
14. Students should then be directed to explore and find how many trapezoids will make the whole.
15. Once students have correctly determined two trapezoids make a hexagon/whole ask how many students could share the whole divided into two.
16. Write 1/2 on the overhead to show the proper notation/corresponding symbol for the fraction each person would receive.
17. Remind students the bottom number is the denominator and represents the number of pieces the whole is divided into and the top number is the numerator representing the fraction or part of the whole.
18. After students are able to explain and identify 1/2 they should explore thirds (rhombuses) and sixths (triangles).
19. Pause the lesson occasionally to explain to students the whole is also one and can also be recorded as 2/2, 3/3 and 6/6. Continue to remind as needed and question occasionally to ascertain their understanding of the fraction that is equal to the whole.
20. To differentiate the exploration students who require more support may be shown which shape will be used for sixths and thirds, while others may explore without assistance in identifying the correct shapes.
21. To assess students, interject occasionally to ask students how they would write the corresponding symbol for a fraction of the whole in thirds and sixths.
22. Students should be able to explain what the top and bottom numbers represent even if they cannot remember the words numerator and denominator.

E. Assessment/Evaluation
1. Verbal assessment through partner think, pair and share as well as teacher-directed discussions.
3. Assessment of explorations will help identify students who need small group support for additional practice and students who are able to work with a partner or independently on a fraction practice worksheet.
4. Once students are able to identify 1/2, students are prepared to move forward to smaller fractions.
5. Individual conferencing and questioning.
6. Ongoing Practice

F. Ongoing Practice
1. Students may complete worksheets for homework (cited in section VI. Handouts/Worksheets as 2, 3, 4), but not included as it they copyrighted. A sample of the worksheets may be viewed on the website.
2. The worksheet should be reviewed prior to the next lesson.

Lesson Three: Explore Four More (1/4, 1/5, 1/8, 1/10)
A. Daily Objectives
1. Concept Objective(s)
   a. Understand a unit and its division into equal parts
   b. NYS MST3: Mathematics

2. Lesson Content
   a. Recognize fractions as part of a whole and write the corresponding numerical symbols: 1/4, 1/5, 1/8, 1/10
   b. Recognize fractions that are equal to 1

3. Skill Objectives
   a. Compare cubes and longs and pattern blocks to identify the whole (1) and fractions thereof
   b. Record/label the corresponding numeric symbol for each fraction
   c. Identify and order fractions from largest to smallest/smallest to largest

B. Materials
   1. 1 long and 10 cubes (per partnership)
   2. Pattern blocks (1 large square and 4 smaller squares, 8 even smaller squares and 5 rectangles, all of which need to fit as fractions of the large square per partnership)
   3. Overhead projector with whole and colored fraction transparencies (whole: 1 circle and or rectangle and different color for each set of fraction pieces for fourths, fifths, eighths, tenths)

C. Key Vocabulary
   1. Numerator: a number above the fraction bar identifying the part of the whole
   2. Denominator: a number below the fraction bar identifying the total parts of the whole
   3. Whole: the total pieces of an item or a group
   4. Fraction: a part of a whole
   5. Fraction Bar: the line dividing the numerator and denominator
   6. Equal: of the same amount

D. Procedures/Activities
   1. Students should share what they recall from yesterday’s lesson on dividing fractions into halves, thirds and sixths. Ask questions such as how many people could share a chocolate bar divided into halves, thirds or sixths to review.
   2. Now ask students how many pieces could be shared equally if an object were divided into fifths? Eighths? Tenths?
   3. After students have shared, use the overhead projector and fraction transparencies to model dividing a shape into these fractions. While modeling, be sure to ask students how many pieces you will need to divide shapes into certain fractions or how many children can share a shape divided into certain fractions.
   4. Through questioning and responses, assess student understanding and the link to previous lessons. At this point, students are ready to exploring.
   5. Begin by handing out pattern block kits as children have already become familiar with using them to find parts of a whole.
   6. Ask students to hold up the large square.
   7. Hold up the second largest square (fourths) and direct students to work with their partner to explore how many of these it will take to create the larger square.
   8. Once students have correctly determined it will take 4 of the squares, ask them to think for a moment, pair with their partner and discuss what fraction one of the smaller squares is of the whole.

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9. Explain, and illustrate on the overhead that 1 square is 1/4 of the whole and that 4/4 is the same as the whole or 1. This should be repeated regularly to help reinforce the concept of the whole and its relationship its division into equal parts.
10. Ask students to continue exploring with the shapes to figure out which smaller squares will divide the whole into fifths and eighths.
11. Interject intermittently to ask students assessment questions and continue reminding them of the whole, i.e. 5/5 and 8/8.
12. Once students have been able to identify fifths and eighths, introduce the long and cube kits.
13. Ask students to hold up a long.
14. Ask them to count the boxes on each long.
15. After students have determined there are ten boxes on each long, ask them to think for moment, pair with their partner and discuss what fraction would be equal to the whole or one according to their count. Scaffold questions if necessary to elicit 10/10. Students should share their responses with the class.
16. Direct students to work with their partner in counting out the number of cubes needed to duplicate the whole.
17. As students are exploring tenths with cubes, ask them to hold up 1/10 and ascertain their understanding of how the fraction should be recorded or labeled. If necessary, remind students to review the word wall to begin using the correct vocabulary regularly, i.e. numerator, denominator, fraction bar.
18. Students should come back together to discuss and review what they have learned in the past two lessons as well as the first lesson.

E. Assessment/Evaluation
1. Verbal assessment through partner think, pair and share as well as teacher-directed discussions.
3. Assessment of explorations will help identify students who need small group support for additional practice and students who are able to work with a partner or independently on a fraction booklet as an extension activity.
4. Once students are able to identify 1/4, students are prepared to move forward to smaller fractions.
5. Homework worksheets are completed by students and evaluated by teacher to help drive future lessons and reviews.
6. Extension activity booklets completed in class provide an opportunity to assess cumulative comprehension thus far.

F. Extension Activity/Ongoing Practice
Ongoing Practice
1. As a homework assignment, students will complete a worksheet to be reviewed prior to the next lesson. (cited in section VI. Handouts/Worksheet as 5), but not included as it they copyrighted. A sample of the worksheets may be viewed on the website.

Extension Activity
1. Students will complete a booklet for ongoing practice.
2. Booklets themselves are not differentiated, however the process can be for a tiered classroom.
3. Students who are able to work independently will complete the booklet. Students within this group may collaborate as needed.
4. Those children requiring additional support work with a partner to complete booklet. The booklet will be completed in a group with teacher support as needed and may require additional use of manipulatives to continue reinforcing concepts.

5. Teacher should note and remind students the booklet will include fractions from the previous lesson: 1/2, 1/3, 1/6. (cited in section VI. Handouts/Worksheets as 6), but not included as it they copyrighted. A sample of the booklet may be viewed on the website.

Lesson Four: Caps Off
A. Daily Objectives
   1. Concept Objective(s)
      a. Understand the concept of a group/collection and its subdivision into fractional parts
      b. Standard MST3: Mathematics
   2. Lesson Content
      a. Recognize fractions as part of a group/collection
   3. Skills Objectives
      a. Identify fractional parts of a group or collection
      b. Distinguish numerator, denominator and fraction bar

B. Materials
   1. Book "Caps For Sale"
   2. Collection of various rocks - Use rocks from Core knowledge science or any other type of collection you may have, trading cards, coins, cars etc
   3. Chart paper and markers
   4. Vocabulary words on sentence strips
   5. Small bags with collections of objects – Tier 3- coins nickles , dimes, pennies and quarters, Tier 2 Cut outs of caps (Appendix “B”, Tier 1, base ten blocks amount of bags and contents will vary based on tiered group sizing
   6. Record sheet Appendix “C”

C. Key Vocabulary
   1. Numerator: a number above the fraction bar identifying the part of the whole
   2. Denominator: a number below the fraction bar identifying the total parts of the whole
   3. Whole: the total pieces of an item or a group
   4. Fraction: a part of a group or collection, part of a whole
   5. Fraction Bar: the line dividing the numerator and denominator
   6. Collection: a set or group of objects, numbers, or other items
   7. Classify: to categorize by attributes
   8. Attributes: a feature of an object or a set of objects.

D. Procedures/Activities
   1. Have children come together in an area of the room. Read some of "Caps For Sale"
   2. Ask the children if they have a collection of anything? Write responses on chart paper under title collections, Wow there are so many things we collect.
   3. Explain to the children that you have a collection too and ask if they would like to see it? Take out your collection of items. This is my collection. Spread out the items.
4. Ask the children how many collections you have? (One) How many items are there in my collection? Ask the children to help you count how many items you have in your collection and write it on the chart paper.

5. Hmm ... Can we break my collection into smaller groups? Let's try. With the students, divide the collection into groups. Explain that you are classifying or finding attributes.

6. Wow, we just divided my group into smaller parts or fractional parts. Let's write the numbers for each group on the chart paper.

7. Can anyone tell me why these smaller groups could be a fractional part? Think about it for a minute, now turn to a partner and share. Ask for responses. Explain that fractions are equal parts of one but they also can demonstrate or explain the different parts of a group or collection.

8. Now let's take a look at our smaller groups and see if we can determine the fraction for each group. Remember that a fraction has a numerator and a denominator. Who can tell us what the denominator represents in fractions and why? If the children are having trouble, remind them that the denominator tells the total number of the whole. Have a child write it on the chart paper.

9. Now let's look at our first part of the collection - remember the numerator tells the part of the whole. What would our numerator be? Continue for the remaining sets always stressing that the numerator is the part of the whole and that the denominator is the total.

10. Let's try to find some parts of groups now.

11. Tier 3 will work with collection bag alone, Tier 2 works with a partner, Tier 1 will work as small group with the teacher.

12. Come back together and review answers.

E. Assessment/Evaluation

1. Ongoing throughout lesson via teacher directed questioning and student responses, student think, pair and share discussions as well as teacher-student conferences.

2. Completion of worksheet and evaluation of student responses.

Lesson Five: How Do We Share and Make it Fair?
Identifying Equal Shares and Translating into Fractions

A. Daily Objectives

1. Concept Objectives
   a. Understand a unit and its division into equal parts
   b. Understand and apply basic and/or advanced concepts of fractions and apply to other mathematical concepts
   c. Standard MST3: Mathematics

2. Lesson Content
   a. Recognize fractions that are equal to one

3. Skill Objectives
   a. Determine equal shares by using manipulatives
   b. Explain results through drawings and writing
   c. Translate equal sharing into fractions

B. Materials

1. The Doorbell Rang
2. Small paper circles
3. Post-its
4. Smiley faces (Appendix “D”)
5. Chart paper
6. Markers

C. **Key Vocabulary**
1. Equal sharing: to have the same amount

D. **Procedures/Activities**
1. Review: Ask students to think for a moment, pair with a partner and discuss what they recall about yesterday’s lesson. Students will share with the class.
2. Remind students that yesterday we used different types of rocks to identify fractions of a collection. We counted our total number of rocks (25), which was our denominator. Then, we counted how many smooth rocks we had out of the total. This number was our numerator (10).
3. Review the other types of rocks and throughout the lesson ask students to explain the numerator, denominator and fraction bar as a reinforcement.
4. Next, tell the children that today we are going to learn about sharing and have students think for a moment about what the word means and what it means to share. Students will think, pair and share and discuss answers with the class.
5. Write the students’ responses on a chart in the word sharing center (and also include on the math word wall for future reference).
6. Now, tell the class “Okay, let’s get more specific”. Ask them what they think equal sharing is and tell them to think about the clue word *equal*.
7. Give the students a minute or so to think, pair and share out with the class.
8. Write the answer on the chart paper in the word sharing center (also include on the word wall).
9. Once the words have been discussed, tell the students you have some grapes in a bowl. Tell them, “In fact, I have 6 grapes in this bowl. Who would like to share these grapes with me?”
10. Give the student a grape. Don’t forget to say thank you for sharing!
11. Then let the students know you have more to share and now you would like to share “equally”. (You will have another bowl with 6 grapes)
12. With the next student, model equal sharing.
13. “You get one and I get one…four remaining. You get another one and I get another one…two remaining. You get another one and I get another one…none remaining. How many do you have? (3) Hmm…let me count mine. Yes. I also have 3 grapes”.
14. Tell the students you have now accomplished equal sharing. “Let’s give ourselves a silent cheer! Enjoy the grapes”. (At this point you might want to have some grapes for all students).
15. Now ask the students: “Did I share with both students?” (yes).
16. Ask the children to think about the difference between both times you shared.
17. Explain that you did not share equally with the first student and you did share equally with the second student. Remind them of the amount of grapes the students received.
18. Tell the students they will now practice sharing equally.
19. Distribute to each partnership a set of 30 circles that will represent cookies.
20. Show the cover of the book, “The Doorbell Rang” by Pat Hutchins. Discuss the cover with the class.
21. Hand out post-its. Have the students think and pair to discuss predictions. Students will record their predictions on the post-its.
22. To share out, have students read their post-it predictions and place them on a prediction chart.
23. Explain that today’s reading will be done a bit differently.
24. Tell the children: “While I read the story you are going to use your “cookies” to help create equal shares”. (Keep in mind the computation of how many cookies apiece changes as other children enter house).
25. Begin reading, but giving students ample time after each scene to “equal share”.
26. Be mindful of who is understanding equal share and who is not. Interject and model as necessary.

E. Assessment/Evaluation
1. Ongoing throughout lesson by walking around, questioning students, think, pair and share, conferencing and taking notes.
2. Student responses are key to assessing and evaluating student comprehension.
3. Equal share activity connected to read-aloud.
4. Ongoing practice (Appendix “D”)
5. Extension Activity

F. Extension Activity/Ongoing Practice
Ongoing Practice
1. First, be certain each set of partners has at least 30 manipulatives.
2. Give each student a worksheet entitled “Turning Equal Shares into Fractions”. (Appendix “E”)
3. Model the first row in #1 emphasizing that the 16 is the total number of carrots and that number is the denominator.
4. Count out how many of the 16 “carrots” each child will receive. This number becomes the numerator.
5. Do the second row together.
6. To differentiate, give smiley faces to those children unable to, or will have difficulty, visualizing. Each smiley face will represent a child. These are the students with whom you will work utilizing the manipulatives to help them understand equal shares and their fractions. (Tier 1)
7. Additional differentiation may involve a second group of students (Tier 2) working in partnerships and a third group (Tier 3) who will work independently.

Extension Activity
2. Choose one student to be the narrator.
3. Begin with two students sitting at a table with a tray of 12 cookies, while the mother (another student) is attempting to mop the floor.
4. If you are unable to get a doorbell for this activity, a knock at the door will represent the doorbell.
5. Use the same number of children and cookies as indicated in the book.
6. Make sure the students get to figure out the change in the number of cookies after each ring of the doorbell (or knock at the door if need be).

VI. CULMINATING ACTIVITY
A. The students can create their own fractions books complete with writing and illustrations to demonstrate their understanding of all of the fraction concepts learned within this unit.
Encourage creativity in the objects students will divide, but remind them the objects must be of the sort that can be shared or divided equally. Differentiation for this activity may include varying outcomes and processes, yet still representative of the comprehension of the concepts. For example, higher level students may want to include number stories to represent fractions or equal shares, while lower level students may use basic illustrations and labeling of their fractions. Each book should contain each of the fractions represented in this unit: 1/2, 1/3, 1/4, 1/5, 1/6, 1/8 and 1/10 as well as the whole or one.

VII. HANDOUTS/WORKSHEETS
1. Appendix A
2. One Half: A Fraction Worksheet:
   http://www.enchantedlearning.com/math/fractions/half.shtml
3. One Third: A Book on Fractions:
   http://www.enchantedlearning.com/books/howmany/onethird
4. Color Fractions of Groups of Fruit: A Worksheet on Sixths:
   http://www.enchantedlearning.com/math/fractions/color/groupsoffruit.shtml
5. Shading Fractions Worksheet #1:
   http://www.enchantedlearning.com/math/fractions/identifying/shading1
6. Fractions: A Book for Early Readers:
   www.enchantedlearning.com/books/howmany/fractions
7. Appendix B
8. Appendix C
9. Appendix D
10. Appendix E

VIII. BIBLIOGRAPHY
APPENDIX “A” – ACTION! ACTION! We Want Fractions!

Name ________________________         Date ______________________

Cut your orange 2 into equal parts. Write the numerator and denominator.

Cut your orange 3 into equal parts. Write the numerator and denominator.

Cut your orange 4 into equal parts. Write the numerator and denominator.
APPENDIX “B” – ACTION! ACTION! We Want Fractions!
APPENDIX “C” – ACTION! ACTION! We Want Fractions!

NAME: ___________________________  DATE: _____________________________

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### Turning Equal Shares into Fractions

Use manipulatives to solve the problems.

1. There are 16 carrots. (The 16 is the denominator. It is the total amount of carrots.)

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</tr>
<tr>
<td>16</td>
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</tr>
</tbody>
</table>

2. There are 20 balloons.

<table>
<thead>
<tr>
<th>Number of Children</th>
<th>How many balloons will each child get?</th>
<th>Fraction</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
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<tr>
<td>5</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. There are 30 pencils.

<table>
<thead>
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<th>Number of Children</th>
<th>How many pencils will each child get?</th>
<th>Fraction</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
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<td>30</td>
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</tbody>
</table>