



# Career Development & Occupational Studies

## PART II.2

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**NOTE:** This document is a work in progress. Parts II and III, in particular, are in need of further development, and we invite the submission of additional learning experiences and local performance tasks for these sections. Inquiries regarding submission of materials should be directed to: The Career Development & Occupational Studies Resource Guide, Room 681 EBA, New York State Education Department, Albany, NY 12234 (tel. 518-474-5922).



# Eating Fractions



*The students will make a sandwich and cut the whole into parts representing fractional equivalents.*

The purpose of this lesson is to identify halves, fourths and to informally identify equivalent fractions ( $2/2 = 4/4$   $1/2=2/4$ ) and to apply this knowledge in problem solving.



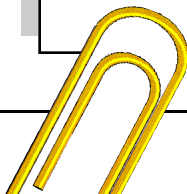
**CDOS**  
**3a**

- ▲ solve problems
- ▲ responsible behavior
- ▲ attributes needed to complete task
- ▲ how technology affects society

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Grade 1

This lesson is an extension of concepts in the first grade math curriculum. It reinforces and applies knowledge about fractions to a real life situation. These workplace skills are an essential component of the elementary curriculum. The skills are taught using an interdisciplinary approach.



## Students need to know how to:

1. Identify figures that are the same size and shape.
2. Identify halves and fourths in plane figures.
3. Work safely with a knife.
4. Read words: halves, fourths, whole. Read  $1/2$ ,  $2/2$ ,  $1/4$ ,  $2/4$ ,  $3/4$ ,  $4/4$ .

## ASSESSMENT

**OBSERVATION** —Are children cutting the sandwich into equal parts? Are children using lesson vocabulary (equal, halves, fourths) as they work? Are children using the materials responsibly, i.e., using the knife to spread the peanut butter and jelly; using the knife to cut the sandwich; keeping the work area clean?



### ASSESSMENT TOOLS AND TECHNIQUES

#### Observation Checklist for Eating Fractions Activity

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Demonstrates understanding by cutting sandwich into equal parts (halves or fourths).

✓	Comments

2. Uses lesson vocabulary when discussing activity.

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3. Demonstrates control when using the knife.

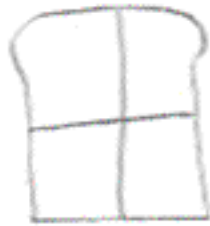
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### **GROUP DISCUSSIONS AND MODELING**

— As children discussed how their sandwiches were cut, they demonstrated their awareness that in order for the sandwich to be cut in halves or fourths, the parts must be equal.




This is how I cut my sandwich.




I cut my sandwich  
in fourths.


halves fourths
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Use the pictures of sandwiches to solve problems

①  I ate  $\frac{2}{4}$  of my sandwich.  
How much is left?  $\frac{1}{4}$ 

$\frac{2}{4}$
---------------

②  I ate  $\frac{1}{2}$  of my sandwich.  
Color the part of the sandwich that is left.

③  I want to share my sandwich with my friend. Color to show how much I should give my friend so we both have the same amount.

**QUESTIONS** — If you cut your sandwich into fourths, hold up one fourth of your sandwich. Show the sandwich on the chart that is cut in fourths. Repeat with halves. How could two children share this sandwich that is cut in fourths? How many fourths would each child get? How many slices of bread would we need to make three sandwiches?


This is how I cut my sandwich.




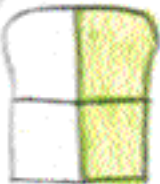
I cut my sandwich  
in halves.

halves  
fourths

Use the pictures of sandwiches to solve  
problems

①  I ate  $\frac{2}{4}$  of my sandwich.  
How much is left?  $\frac{1}{4}$   $\left(\frac{2}{4}\right)$

②  I ate  $\frac{1}{2}$  of my sandwich.  
Color the part of the sandwich  
that is left.

③  I want to share my sandwich with  
my friend. Color to show how much  
I should give my friend so we both have  
the same amount.

## REFLECTION

This lesson addressed differences in learning styles by providing different instructional techniques and methods. Children were able to hear as they were told instructions along with seeing visual cues and then doing the project. Therefore, auditory, visual, and kinesthetic learners had their learning strengths addressed. The activity can be enriched by having students envision that it takes place in a restaurant or other *real* setting in order to understand that fractions are part of activities out of school.

# Wee Deliver



## CDOS

### 1

- ▲ value of work

## CDOS

### 2

- ▲ identify knowledge/skills for occupations
- ▲ knowledge and ability to use skill
- ▲ solve problems

## CDOS

### 3a

- ▲ oral/written expression
- ▲ how system operates

#### Materials:

- postal delivery bags, canceling stamps, and stamp pads materials for making stamps by computer
- label paper, graphics program by hand
- plain paper, "stamp glue" (Knox gelatin and fruit juice) adhesive paper markers, and colored pencils
- stampers with designs, ink pads, and "commemorative" stamps
- children's drawings reduced on copy machine and printed on adhesive paper, or plain paper with stamp glue
- cash box with start-up currency
- record keeping notebook
- graphing paper

***Wee Deliver In-School Postal Service Manual***  
**US Postal Service's Stamp Out Illiteracy Program**  
 470 L'Enfant Plaza SW  
 Room 4102E  
 Washington, DC 20260-3110  
 (202) 268-2150

Margaretta Salisbury  
 Newburgh Enlarged City School  
 District  
 Micro Community Magnet School  
 at West Street  
 39 West Street, Newburgh, NY 12550  
 (914) 563-7777, FAX (914) 563-7795

Grades K-12

**W***ee Deliver* is an in-school postal service, which is part of a larger Micro Community simulation. It uses hands-on experience to develop and reinforce academic and work skills.

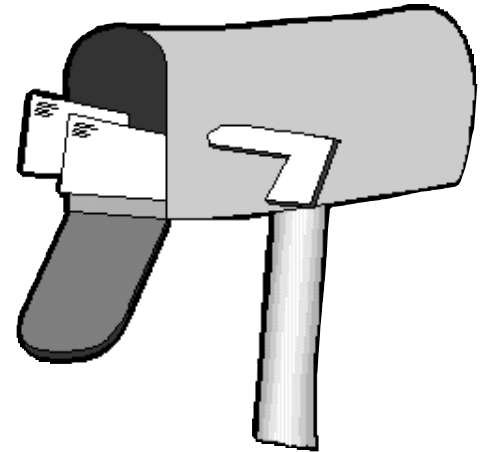
*To succeed in this experience, students need to read and write at a first grade level, do simple math computations, charting and graphing, understand simple street maps and work cooperatively as a group.*

Teacher

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## The students will:

- develop a map of the school and determine routes
- design and produce stamps using computer, ink stamps, and hand drawings; commission commemorative series for special occasions
- sell stamps, collect and deliver mail, cancel and sort mail
- keep records of mail processed and stamps sold by charts, graphs, and computer
- count money and keep a business account with the school bank
- visit the local post office or postal distribution center to see how skills they are learning in school are put to use in a postal occupation



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## The teacher will:

- introduce lesson on the post office and secure necessary materials and equipment
- guide children through various steps of mail processing, stamp making, and record keeping
- arrange trip to postal facility
- do assessments of student progress

As this is a multi-age group activity for grades K-2, cooperative groups are formed pairing older children with younger ones. Much of this activity is hands-on, involving on-the-job training through demonstration.

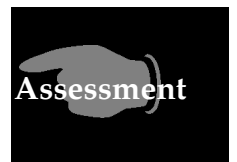
A set of boxes is required for sorting the mail. Also, mailboxes for sending or receiving mail are needed for each classroom and for all staff. A centrally-located mail drop-off box may be set up as well.

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## ASSESSMENT

Informal anecdotal notes are recorded by the teacher while observing student performance in each area of the activity. Students show what they know by designing and producing stamps, canceling letters, sorting mail, collecting and delivering mail, keeping records, analyzing data, making graphs, selling stamps and making correct change, making advertisements, and making simple maps. Each activity is rated based on accuracy, legibility and neatness, effectiveness of communication, and creativity.

In addition, the *Skills Checklist for Postal Workers* is used to assess overall performance as a postal worker. Each child enrolled in *Wee Deliver* has an opportunity to demonstrate each of these skills during the 6-8 week activity period.



**Micro Community Magnet School at West Street, Newburgh, NY**  
**Skills Checklist for Postal Workers**

Name of worker: \_\_\_\_\_ Grade: \_\_\_\_\_ Micro Activity Session \_\_\_\_\_

As a Wee Deliver employee, your child has shown accuracy in these academic skills:

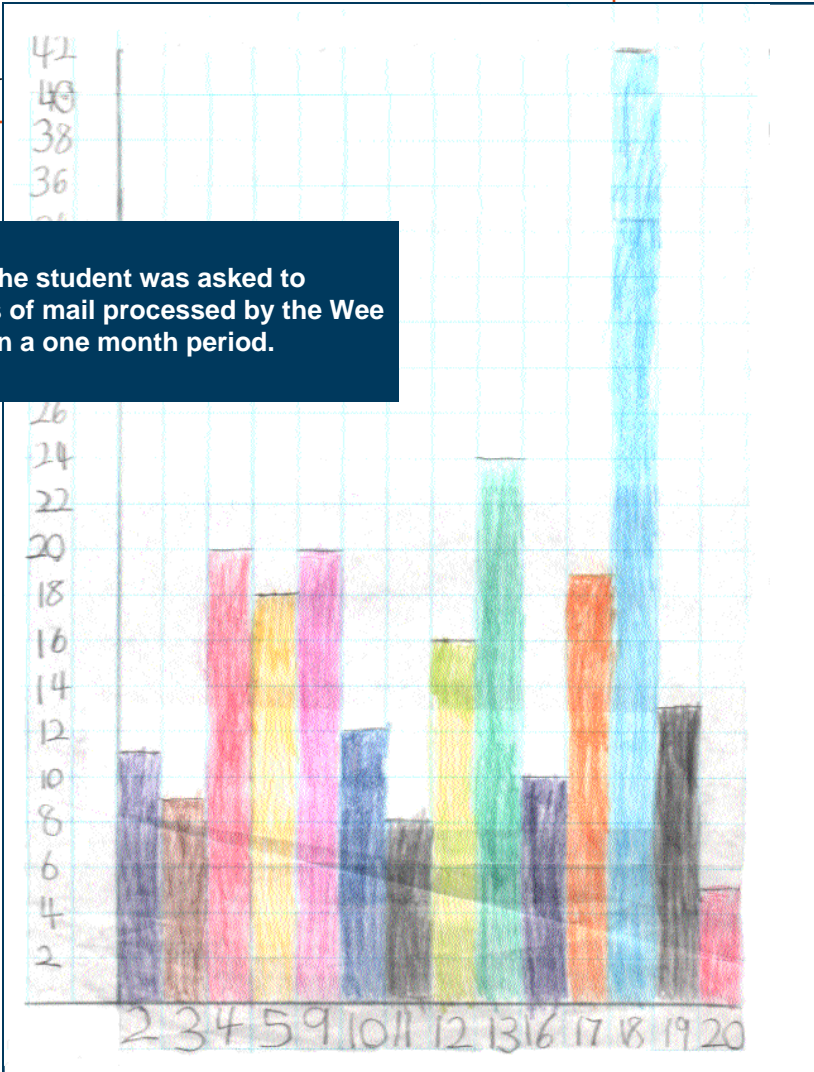
- \_\_\_ preparing own letters for mailing
- \_\_\_ knowledge of school layout
- \_\_\_ mapping and organizing routes
- \_\_\_ sorting in numerical order
- \_\_\_ sorting by street address
- \_\_\_ identifying unprocessable mail
- \_\_\_ making stamps
- \_\_\_ making change for stamp sales
- \_\_\_ gathering, recording, charting, graphing data

As a Wee Deliver employee, your child has effectively demonstrated these work skills:

- \_\_\_ managed time
- \_\_\_ worked in a team
- \_\_\_ taught or served others
- \_\_\_ set up or changed a system
- \_\_\_ listened and spoke well
- \_\_\_ was responsible
- \_\_\_ showed self respect and confidence
- \_\_\_ managed independently
- \_\_\_ was friendly and courteous

Comments:

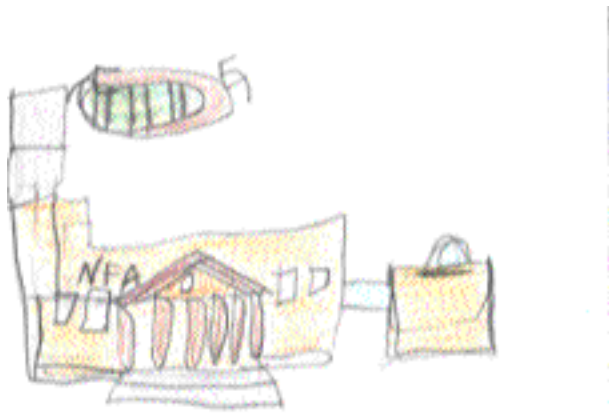
Teacher's Signature: \_\_\_\_\_



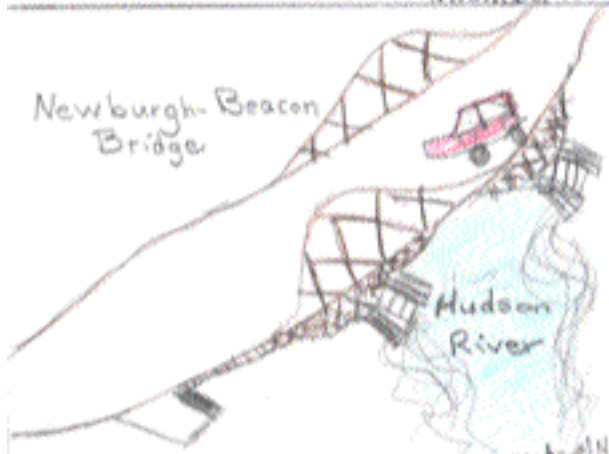
**MAIL PROCESSED IN DECEMBER 1996.** The student was asked to record, in chart form, the number of pieces of mail processed by the Wee Deliver Postal Service each work day within a one month period.

**LETTERS DELIVERED IN DECEMBER.** The student was asked to create a graph showing the number of letters delivered by the Wee Deliver Postal Service within a one month period, with volume of mail on the vertical axis and the delivery days on the horizontal axis.





Michael N.



**NEWBURGH STAMPS** series. The student was commissioned to draw a series of four commemorative stamps to be copied and sold by the Wee Deliver Postal Service, each illustrating an important Newburgh landmark.



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## REFLECTION

This activity could be expanded to include the setting up of postal zones. Delivery of packages could be included, which would require the determining of postage by weight and zone. Special rates could be offered to patrons for bulk mailings or business mail.

Monthly reports could be made to each meeting of the Legislature. Articles could be written for the school newspaper and parent newsletter. Students write and deliver advertising and public relations announcements.

Students could keep their own time sheet for payroll purposes.

Students could keep a "postal worker's journal" reflecting on their work experience each week. Even pre-writers could do this by illustrating their own teacher-recorded text.

Assessment could be improved by developing a more specific rubric of skills appropriate for each grade level, to complement the skills checklist now being used.