Lesson 55

Skills:

- ❖ Learn about historical figures.
- ❖ Write contractions.
- ❖ Tell time to the quarter hour.
- ❖ Recognize a quarter note and quarter rest, and clap a rhythm.

Materials:

- ❖ Telling time flashcards: hour and half hours
- ❖ Paper clock from Lesson 53
- ❖ *Now & Ben, The Modern Inventions of Benjamin Franklin*, by Gene Barretta
- ❖ *Ben and Me*, by Robert Lawson
- ❖ Worksheets 55, 55a, 55b

Calendar:

- ❖ Continue routine activities.
- ❖ Read *Ben and Me*, chapters 8-11.
- ❖ Have your child write about any topic he chooses in his journal.

Language Arts:

- ❖ Have the child read the story about Benjamin Franklin on worksheet 55, part A. Discuss the story and have the child answer the following questions using complete sentences as often as possible:
  - • Why did Ben invent bifocal glasses? (*He needed two different types of glasses and got tired of switching them.*)
  - • What does an odometer measure? (*It measures the distance you have traveled.*)
- ❖ On worksheet 55, part B, have the child write three compound words from the story.
  Answers: became, thunderstorm, postmaster
- ❖ On worksheet 55, part C, have the child write the contractions.
  Answers:
  1. *he'll*
  2. *aren't*
  3. *it's*
  4. *she's*
  5. *can't*
  6. *you'll*
  7. *we'd*
  8. *they'd*
  9. *couldn't*
  10. *where's*
- ❖ Read *Now & Ben, The Modern Inventions of Benjamin Franklin.*
  - • List other inventions by Ben.
  - • What would you invent and why?
  - • Draw a picture of your invention.
- ❖ Benjamin Franklin invented many things that were designed to help others. Discuss the unit verse: *And do not forget to do good and to share with others, for with such sacrifices God is pleased* (Hebrews 13:16). Do you think God was pleased with all the good things Ben did for others?

Math:

- ❖ Use the paper clock to review reading a clock to the hour and half hour. Show a time on the clock and have the child read the time. Repeat for different times on the clock. Now show a telling time flashcard, and have the child move the hour hand and minute hand to the correct positions.
- ❖ Teach the concept of one-fourth of an hour. Tell your child that dividing in fourths gives four equal parts. We call a fourth of an hour a quarter hour, and it is worth 15 minutes.
- ❖ Say, "When we divide an hour in quarter hours, the minute hand has four positions: 12, 3, 6, and 9. How many minutes are in a quarter hour?" Put the minute hand on the 12. Move it clockwise, to the right, and have the child count by fives. Each numeral on the clock represents five minutes. There are 15 minutes in a quarter hour. As the minute hand moves to the quarter hour positions around the clock, the hour hand moves by fourths between the current hour and the next hour. For example, at 2:00 the minute hand is on the 12 and the hour hand is on the 2. At 2:45 the minute hand is on the 9, and the hour hand is three-fourths of the way between the 2 and 3.

2:00   2:45

- ❖ Have the child complete worksheet 55a.

    Answers: 1. 10:45   2. 4:15   3. 1:30

    4.   5.   6.   7.   8.

    9. 0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60

    10. 0, 15, 30, 60

    11. 8¢   12. 12¢   13. 15¢   14. 13¢   15. 7¢

    16. 17¢   17. 39¢   18. 88¢   19. 68¢   20. 82¢

    21. 76¢   22. 74¢   23. 94¢   24. 81¢   25. 55¢

    26. 6¢   27. 7¢ 28. 10¢   29. 4¢   30. 41¢

    31. 29¢   32. 17¢   33. 21¢   34. 23¢   35. 57¢

Music:

- ❖ Have the child cut apart the boxes on worksheet 55b.
- ❖ Review the symbols with the child.
- ❖ Note that there are four symbols in each box.
- ❖ Each box is divided into four quarter notes or rests, just like a clock can be divided into four quarter hours. Each symbol is called a quarter note/rest because it is one-fourth of the group.
- ❖ Have the child choose rhythm pattern box, and clap or rest on each beat.
- ❖ Create rhythm patterns of your own.
- ❖ Have the child arrange the boxes in a row and create a "clapping" song. Clap the song.

Part A: Read the story.

Ben and his wife were very busy running a printing business and a store, but Ben always found time to try out new ideas. He made a special rocking chair with a fan on it, and another that had a fold out step ladder. He also made a "long arm" to reach books off the high shelves. He invented the Franklin Stove which helped to heat houses more efficiently and safely. The stove was a cast iron box that sat in the center of a room and radiated heat out of all four sides.

In 1732 he published the first *Poor Richard's Almanack.* This book had many sayings in it that are still used today. For example, "A penny saved is a penny earned." Or, "Haste makes waste."

He formed the first public library in America, and helped organize Philadelphia's fire department. Ben wanted to help sick people so he formed a group of people to start the Pennsylvania Hospital. He also helped found the school that became the University of Pennsylvania.

Ben's eyes weakened with age, and he had to wear two different pairs of glasses. One was for reading, and one was for seeing things far away. He got tired of switching glasses, so he cut each lens in half and combined it into one pair of glasses. Many people wear bifocal glasses today.

Ben believed that lightning was a flow of electricity. He proved this with his famous kite experiment. He attached a metal key to the string of a kite and flew the kite during a thunderstorm. The electricity from the lightning traveled down the kite string and to the key. Metal is a conductor of electricity, so when Ben touched the key he received a shock.

When Ben was the postmaster traveling from Philadelphia to Boston he wanted to know how far he was traveling. He calculated the circumference of the carriage wheel and how many revolutions, or turns, were in a mile. He designed an odometer to measure the distance, and he attached his odometer to the wheel of his carriage.

Part B: Write three compound words from the story.

_____

– – – – – – – – – – – – – –

_____

_____

– – – – – – – – – – – – – –

_____

_____

– – – – – – – – – – – – – –

_____

Part C: Write the contraction.

1. he will _____

2. are not _____

3. it is _____

4. she has _____

5. can not _____

6. you will _____

7. we would _____

8. they had _____

9. could not _____

10. where is _____

Part A: Read the time on the clock.
    Write the correct time on the line.
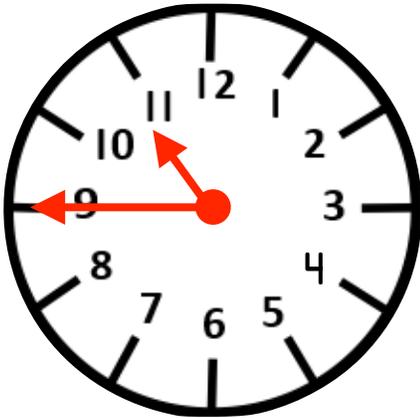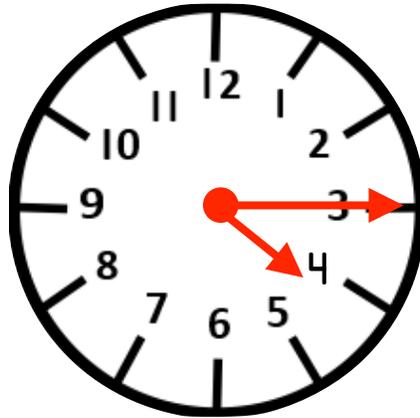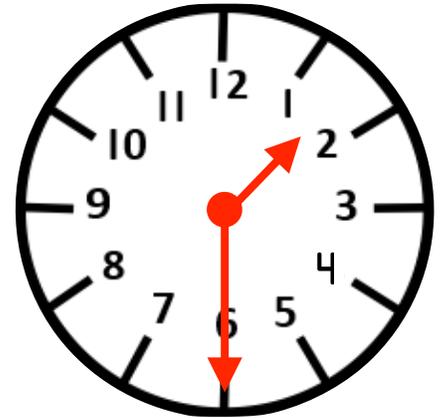
1. _____   2. _____   3. _____

Part B: Read the time. Draw the hands in the correct place on
    the clock.
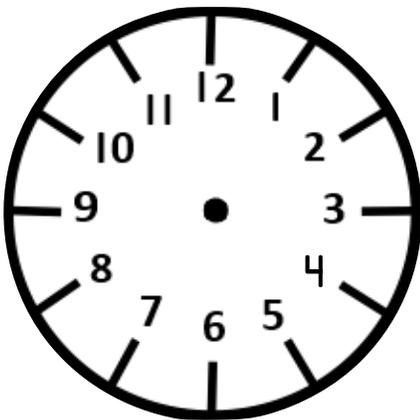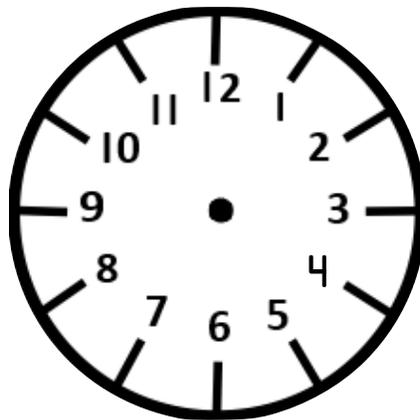
4. 5:15   5. 8:45   6. 11:15
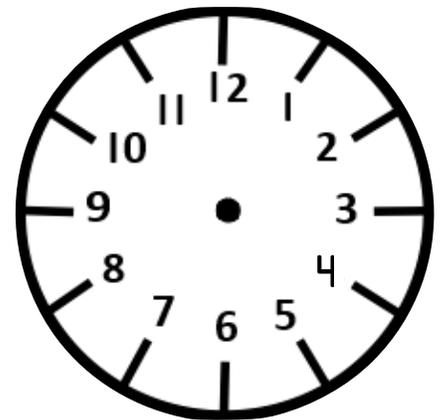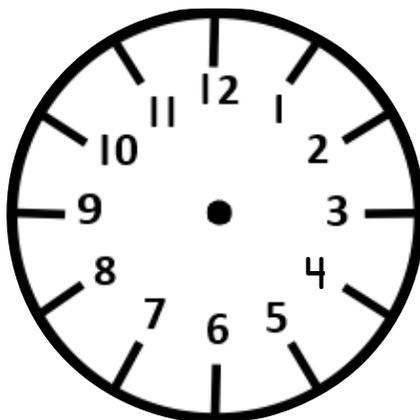
7. 3:00   8. 9:30
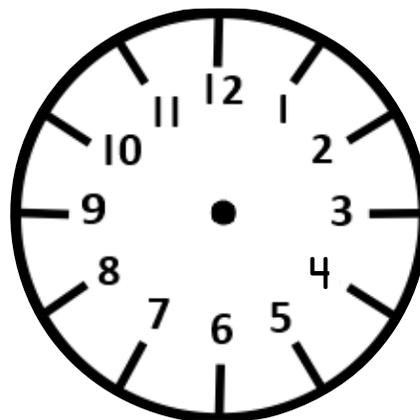
Part C: Count the minutes in one hour. Count by fives.
       Start at zero.

9. _____, _____, _____, _____, _____, _____, _____,

    _____, _____, _____, _____, _____, _____

Part D: Count by quarter hours (15 minutes). Start at zero.

10. _____, _____, _____, _____

Part E: Add the amounts of money.

11. 2¢	12. 8¢	13. 9¢	14. 6¢	15. 5¢
+ 6¢	+ 4¢	+ 6¢	+ 7¢	+ 2¢

16. 16¢	17. 33¢	18. 55¢	19. 40¢	20. 72¢
+ 1¢	+ 6¢	+ 33¢	+ 28¢	+ 10¢

21. 47¢	22. 56¢	23. 89¢	24. 46¢	25. 37¢
+ 29¢	+ 18¢	+ 5¢	+ 35¢	+ 18¢

Part F: Subtract the amounts of money.

26. 13¢	27. 16¢	28. 18¢	29. 16¢	30. 75¢
– 7¢	– 9¢	– 8¢	– 12¢	– 34¢

31. 57¢	32. 45¢	33. 60¢	34. 37¢	35. 83¢
– 28¢	– 28¢	– 39¢	– 14¢	– 26¢

A quarter note equals one beat.

A quarter rest equals one resting beat.