

# Science 8 Lesson Plan

The moon pulls with less force on the unknown but it also pulls with less force on the riders on the balance. A balance measures mass; a spring scale measures weight (although some are calibrated for mass at sea level).

Begin the Chapter 4 Review on p. 26. For the Review Question Part VI, # 1, you may trace each line and measure the lines with the centimeter ruler in Appendix II.

## Day 3

Finish the Chapter 4 Review. Enter this grade on the Quarter Report Form to be included in the quarter average.

For Enrichment: Make your own balance using string, a wire coat hanger, and empty cans (or paper cups). Use pennies for known weights. One U.S. penny equals 2.53 grams.

## Day 4

If possible, do the Lab: Instruments.

There are four quizzes for this chapter. If you do not do the lab, do Quizzes 1 and 2 on the microscope.

### Day 5

Do either Quizzes 1 and 2 or Quizzes 3 and 4 on the lab instruments, as appropriate.

#### WEEK FOUR

#### Day 1

Chapter 5: Seawater. Read and study pp. 28 to 30.

## AUTHOR'S CATHOLIC NOTES ON CHAPTER 5

I indeed baptize you with water, but one mightier than I is coming, the strap of Whose sandals I am not worthy to loose. He will baptize you with the Holy Spirit and with fire. Luke 3:16

The earth, nicknamed the water planet, is unique in all the known universe in that it is covered with water. This chapter relates the importance of water to living things. In a spiritual parallel, the water of Baptism is the spring from which our life in the Church begins. Jesus even went down into the river to be baptized by John.

The symbolism of water reaches from the ancient passage of the Israelites through the Red Sea and Moses striking the rock to bring forth water in the desert to Christ describing Himself as the Source of Living Water, even to our own times with the flow of miraculous cures and spiritual healings emanating from the spring at Lourdes in France.

Each time we bless ourselves with holy water, we recall the waters of Baptism when we were washed of our sins through the saving grace of our Redeemer, from Whose side blood and water flowed as He hung on the cross for our salvation.

The "seawater-like" blood in our veins ties us to this passing world; the waters of Baptism bind us into that world not made by human hands, eternal in the heavens.



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In answer Jesus said to her, 'Everyone who drinks of this water will thirst again. He, however, who drinks of the water that I will give him shall never thirst; but the water that I will give him shall become a fountain of water, springing up unto life everlasting.' John 4:13,14

# Day 2

Begin the Chapter 5 Review on p. 31. Omit Questions 1 and 2 of Part IV.

Protons in the nucleus are +1; neutrons in the nucleus are 0; electrons in shells are -1.

The 92 natural elements are like 26 letters; molecules are like words. How many words may be made from just 26 letters? How many kinds of molecules may be made from just a few of the elements?

If the nucleus of the atom illustrated in Figure 5-1 were as big as shown (3.70 cm), then the entire diagram should be bigger than 44 average-sized classrooms [or 88 average-sized living rooms—editor].

Figure 5-1 states that in an atom "Only 2 electrons may fit in the first shell, and only 8 in the second energy shell." However, Figure 5-1 does not give you the formula to determine how many electrons may fit in each electron shell. The formula is as follows: The nth shell can hold no more than 2n2 electrons. Do you see how you would need this formula if asked the number of electrons in the third shell of an atom that had more than 10 electrons?

# Day 3

Finish the Chapter 5 Review and enter this grade on the Quarter Report Form if it is to be averaged into the quarter grade.

# Day 4

Do the Lab: The Percent Water in an Organism (pp. 7-8 in the lab packet).

# Day 5

Do the Chapter 5 Quiz.

## WEEK FIVE

## Day 1

Chapter 6: Cells. Please read and study pp. 33 to 35.

# AUTHOR'S CATHOLIC NOTES ON CHAPTER 6

## **CELL THEORY AND ORIGIN OF LIFE**

Part of the currently accepted cell theory is that cells arise from previously living cells. In other words, the idea of spontaneous generation is false just as was proven by Redi, Pasteur, and others. Let us now consider back in time to the beginnings of life on earth. Secular humanist "scientists" change the rules and say that in the beginning, life arose by chance. Why that happened only then and not continuously since then is not clearly explained. Nor can it be explained.

The first living things in this world received the breath of life from Almighty God, our Almighty Creator Who always was, is, and always will be.