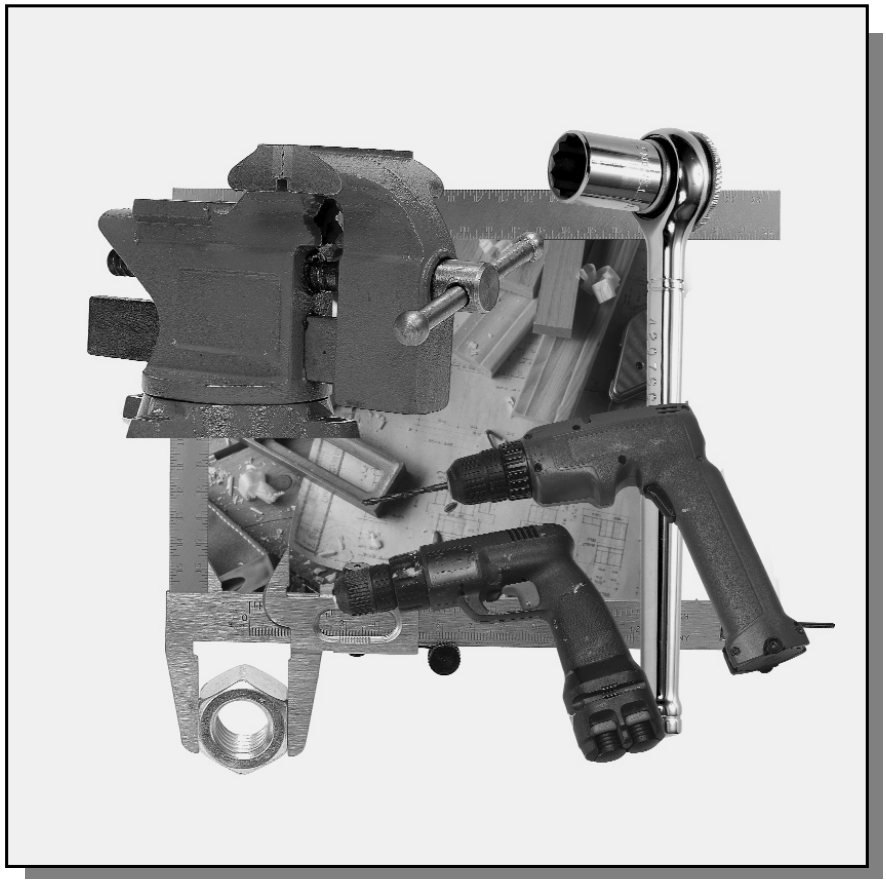
Character and Skills for Home and Careers

Activities



Chapter 5

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Character and Skills for Home and Career

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Chapter 5, Section 1

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Plumbing

ACTIVITIES
Lesson 1

Remember When

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. The Luper family consisted of _____ individuals.
2. Mr. Luper was listening to _____ when the family drove up to the old home place.
   (a) children talking (c) a farm tractor
   (b) wind in the trees (d) dogs barking
3. Bruce and Molly Luper were Sid's parents. _____
   (a) True or (b) False
4. Mr. Luper's parents were originally: _____.
   (a) sailors (b) farmers (c) plumbers (d) teachers
5. The Luper ***homestead*** was a farm with _____ and a good heritage.
   (a) three ponds (c) unusable land
   (b) 320 acres (d) a new brick house
6. _____ soil can be worked easily.
7. Mr. Luper was involved in _____ when he was in high school.
   (a) football (c) vocational leadership
   (b) livestock (d) all of these
8. Mr. Luper worked at the local _____ supply store during his high school and part of his college years.
9. 'The Luper Place' was near the same town where Mr. and Mrs. Luper graduated from college. _____
   (a) True or (b) False
10. The ***FFA*** is an abbreviation for: _____.
    (a) Future Fathers of America (c) Federal Forestry Association
    (b) Future Farmers of America (d) Fearless Fighters for Amnesty

11. Sid met Monica at his part-time job. _____
    (a) True or (b) False

12. Sid and Monica were married while attending college. _____
    (a) True or (b) False

13. Mr. Luper went to work for a _____ distribution company when he graduated from college.

14. Mrs. Luper taught: _____.
    (a) agriculture
    (b) home economics
    (c) third grade
    (d) physical education

15. Mr. Luper bought the small plumbing supply business from _____.

16. The old house on the Luper homestead was: _____.
    (a) structurally sound
    (b) a western ranch house
    (c) decimated
    (d) in a ravine

17. The Luper children did not like the 'The Luper Place' and were depressed at the thought of living there. _____
    (a) True or (b) False

18. Mr. Luper wanted to move into the old home place of his grandparents. _____
    (a) True or (b) False

19. The starting salary range for an elementary teacher is: _____.
    (a) $ 40,000 -- $ 60,000
    (b) $ 12,000 -- $ 20,000
    (c) $ 24,000 -- $ 30,000
    (d) $ 22,000 -- $ 28,000

20. Write the **Life Principle**: "_____
    _____
    _____."



Plumbing

ACTIVITIES
Lesson 2

Exploring Possibilities

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. The types of trees found at the old homestead were mesquite and pine. _____
   (a) True or (b) False
2. The family saw six _____crossing the road.
3. Molly observed two _____ hopping across the walkway.
4. The _____ to the old farmhouse was made of ***flagstone***.
   (a) walls (b) driveway (c) walkway (d) chimney
5. There were several bob white _____ following each other in a straight line.
6. Mrs. Luper compared her family to a group of _____.
7. In the old well house, the Lupers found fresh running water. _____
   (a) True or (b) False
8. The old well house contained: _____.
   (a) a skunk (b) bees (c) an armadillo (d) wasps
9. Mr. Luper was going to bring some _____ to get rid of spiders and other insects.
10. Mr. and Mrs. Luper decided that they would live in _____ _____ while they remodeled the old house.
    (a) a cattle trailer (c) a travel trailer
    (b) Mr. Luper's parents' home (d) a dilapidated cow lot
11. The young people decided to clean up the _____.
12. While their parents were gone, the children had a bad experience with: _____.
    (a) a neighbor (b) a bat (c) a snake (d) a skunk
13. The animal in the barn was happy to see the Luper children. _____
    (a) True or (b) False

14. Describe the amazing skunk cure used by grandmother: _____
_____
_____
_____
_____
_____.

15. Write the **Life Principle**: "_____
_____
_____."

Name: _____ *Character and Skills for Home and Careers*

Chapter 5, Section 1

Date: _____ Grade: _____



Plumbing

ACTIVITIES
Lesson 3

Cleaning Up and Setting Up

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. The Luper family started the day with a big family_____.
2. There were _____ skunks in the traps.
3. The purpose of the trip into town was: _____.
   (a) to buy insecticides
   (b) to contact a well service company to check the water well
   (c) to arrange to have a temporary service drop installed at the house
   (d) all of the above
4. **Insecticide foggers** were set off: _____.
   (a) in the pasture (c) in the house
   (b) in the yard (d) in the trees
5. The company responsible for rural electric service was: _____.
   (a) Dealers Electric (c) Carraway Supply
   (b) an electric cooperative company (d) Luper's Plumbing Supply
6. The women and children had set up: _____.
   (a) a lawn mower (c) a picnic table
   (b) a television (d) an air conditioner
7. The first thing the Callaway Drilling Company crew did when they arrived was to: _____.
   (a) eat lunch (c) disassemble the well house
   (b) drop a cable into the well (d) drill a new well
8. Due to **corrosion**, the **submersible** pump in the well needed to be: _____
   (a) cleaned (b) oiled (c) replaced (d) a and b only
9. The amount of cable lowered into the well equaled the depth of the well. _____
   (a) True or (b) False
10. The well proved to be _____ feet deep.
    (a) 560 (b) 680 (c) 240 (d) 50
11. The water retrieved from the well was _____.

12. The water well drilling company had to drill a new well. _____
    (a) True or (b) False

13. The _____as well as the _____ in the well also needed to be replaced.

14. The electric cooperative crew responsible for connecting the electricity would have to install a _____ **transformer**.

15. The Lupers would have to pay for some extra electric poles to be installed. _____
    (a) True or (b) False

16. The travel trailer was set up next to the _____.

17. What was used to clear away the high weeds and grass? _____
    _____.

18. A place where a farmer lives including his house, barns, sheds, and livestock pens would be called his _____.

19. A **makeshift** item is: _____.
    (a) permanent and made with excellence
    (b) permanent and roughly constructed
    (c) a temporary but usually well made item
    (d) a temporary, rough, substitute item

20. Write the **Life Principle**: "_____
    _____
    _____."



Plumbing

Making Plans

ACTIVITIES
Lesson 4

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. The lights in the travel trailer were energized by: _____.
   (a) a battery (c) a magnometer
   (b) electricity from the pole (d) a generator

2. The _____ system was the first thing to be considered for repair.

3. Household water systems are divided into _____ general parts.

4. Water valves that control water flow are called: _____.
   (a) locks (b) outlets (c) faucets (d) closets

5. The side of the ***plumbing system*** that operates from a pump or overhead storage tank may be called the _____ system.
   (a) water (b) overhead (c) pressure (d) gravity

6. One half of the plumbing system uses _____ to make water flow, the other half uses _____.

7. Water seeks its own _____ .

8. Water sometimes acts as a moving _____ to keep offensive odors out of the house.
   (a) stream (b) well (c) hole (d) plug

9. Mrs. Luper wanted at least two: _____.
   (a) bathrooms (b) outhouses (c) cisterns (d) galvanized tubs

10. The house needed more bathroom space because: _____
    _____.
    (a) of zoning laws (c) of the number of persons in the family
    (b) this was an extremely dirty family (d) it would make the house larger

11. An ***outhouse*** is: _____.
    (a) an outdoor toilet (c) a shed away from the house
    (b) an outward extension of the house (d) a large barn

12. Originally, water for the house was stored in a _____.

13. In the kitchen, _____ would have to replaced.
    (a) cabinets (c) pipes
    (b) counter tops (d) all of these

14. Due to the presence of various crews of men working on the old house, Bruce concluded his assistance was not needed. _____
    (a) True or (b) False

15. Mr. Luper and his dad found the old septic system tanks by probing the ground with a _____.

16. Bruce used a _____ shovel to help his dad locate the septic tank lid.

17. Mr. Luper used a _____ to open the lid on the septic tank.

18. The septic tank had ***collapsed*** inside and was full of water. _____
    (a) True or (b) False

19. Mr. Luper had to wait until the _____ and _____ were working before the septic system could be tested.

20. Write the **Life Principle**: "_____ _____ _____."



Plumbing

Water at Last

ACTIVITIES
Lesson 5

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. Mr. Luper put _____ on the picnic table as bait.
2. The Lupers knew some creature was at the picnic table because: _____.
   (a) the area was illuminated (c) they heard scratching noises
   (b) they heard the cow bell (d) of their intuition
3. Mr. Luper used a flashlight to illuminate the picnic table. _____
   (a) True or (b) False
4. Two half-grown _____ were spotted in the light.
   (a) skunks (b) bobcats (c) raccoons (d) opossums
5. The well workers brought a _____ gallon tank of water to facilitate the drilling process.
6. The pipe used for drilling was lowered into the well in _____ sections.
   (a) 10 foot (b) 30 foot (c) 15 foot (d) 20 foot
7. The well crew used a ***rotary*** _____ to make the well deeper.
8. Water was forced through the _____ pipe by a powerful pump.
9. The electric company crew placed a _____ pole near the barn by means of a ***high lift bucket.***
10. At the top of the utility pole, the electric company crew placed a: _____.
    (a) transducer (c) weather head
    (b) transformer (d) plumbing head
11. There were six 120 volt outlets and one 240 volt outlet located on the temporary _____.
12. The well pipe was _____ inches in diameter.
13. The last ten feet of the drilling pipe lowered into the well had _____ _____ drilled into it.
14. The well pipe was made of: _____.
    (a) copper (b) plastic (c) iron (d) zinc

15. ***Water sand*** could best be described as sand that: _____.
    (a) holds water (c) fills children's toys
    (b) is found in water (d) is found on the beach

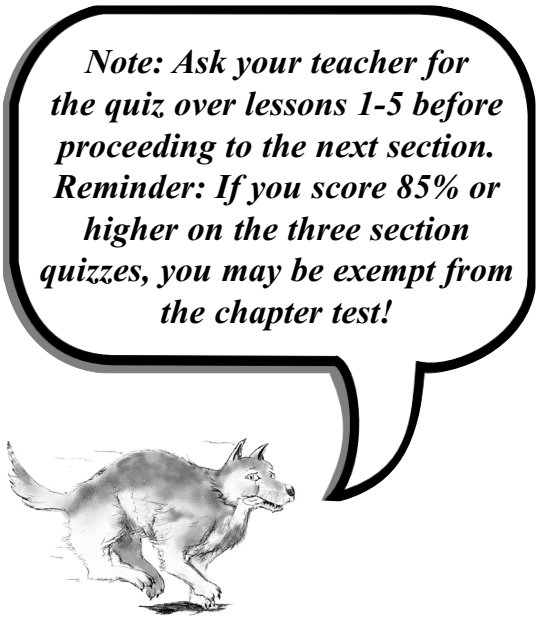
16. The submergible pump was attached to a: _____.
    (a) plastic pipe (b) rubber pipe (c) garden hose (d) galvanized pipe

17. Water flowed from the well without activating the pump. _____
    (a) True or (b) False

18. After the well pump was turned off, the well workers installed a _____ at the well head.
    (a) weather head (b) spigot (c) plumbing head (d) water hose

19. While working on the house, the trailer could be connected to the well by use of a _____.

20. Write the **Life Principle**: "_____
    _____
    _____."



Warning

Students under the age of 18 should not attempt projects described in this course without supervision by a competent adult.

Hands On

These are OPTIONAL PRACTICAL PROJECTS to be conducted under direct supervision of the teacher while manipulating tools and equipment included in this section. (No Answers in Key)

Complete the activities below as indicated.

1. Explain reasons one should not get too close to a skunk.

_____
_____
_____
_____
_____

2. Discuss the advantages and disadvantages of using a cistern for drinking water.

_____
_____
_____
_____
_____

3. When a water table is mentioned in the text, what picture comes to your mind?

_____
_____
_____
_____
_____



Plumbing

Taking Care of Business

ACTIVITIES
Lesson 6

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. The children were not interested in the plumbing business. _____
   (a) True or (b) False
2. The amount of ***inventory*** a company has in ***stock*** would be the amount of _____ on hand at any given time.
3. More plumbing supplies are purchased today by _____ than ever before.
   (a) contractors (c) do-it-yourselfers
   (b) builders (d) schools
4. Many of the plumbing supplies in Mr. Luper's store were packaged in _____ _____.
5. Manufacturers of plumbing products are making their products harder for do-it-yourselfers to use._____
   (a) True or (b) False
6. _____ is important in any do-it-yourself project.
7. Jake Fletcher owned a: _____.
   (a) gasoline station (c) a backhoe
   (b) large dump truck (d) a plumbing store
8. Jake Fletcher was a local _____.
9. Jake Fletcher was hired to dig _____ for installing _____ _____.
10. Two hundred feet of one inch _____ pipe was needed.
11. Mr. Fletcher recommended a 120-gallon _____ storage tank be installed.
12. Mr. Fletcher said the purpose of the large tank would be to prevent: _____ _____.
    (a) water logging (c) high water pressure
    (b) loss of prime (d) the pump overheating

13. The ***lateral*** _____ contained perforated, four inch pipe.
    (a) water/drainage line (c) bus line
    (b) electric conduit line (d) septic/drainage line

14. Water that comes from the sinks, tubs and showers is known as _____.

15. Mr. Fletcher's tractor was equipped with both a _____ and a _____.

16. Write the **Life Principle**: "_____
    _____
    _____."



Plumbing

Putting it Together

ACTIVITIES
Lesson 7

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. Mr. Luper, Chelsea, and Bruce found that, true to his word, Mr. Fletcher had _____ the ***trenches***.
   (a) dug (b) not dug (c) covered (d) filled

2. The septic tank that was installed was made of: _____.
   (a) concrete (b) plastic (c) stone (d) metallic

3. PVC pipe is a _____ material.
   (a) natural (b) synthetic (c) rock (d) metal

4. Plastic pipe is popular because it is economical, light weight, _____ _____, and does not corrode.

5. The disadvantage of PVC pipe is that it will: _____.
   (a) disintegrate over time (c) not withstand excessive pressure
   (b) always leak (d) dissolve in water

6. The process of using ***adhesive*** to join plastic pipe together is called the _____ process.
   (a) union-weld (b) adhesive-weld (c) solvent-weld (d) PVC-weld

7. _____, a power saw, or standard ***hacksaw*** may be used to cut plastic pipe.

8. Rough _____ are created by the cutting device.

9. The pipe can be cut at 45 degrees and used more effectively. _____
   (a) True or (b) False

10. A _____ is used to soften, clean, and prepare the joint.

11. For good _____, the newly glued pipe is forced into fittings and then _____.

12. Water should not pass through the pipes for at least _____ after the joint is secured.

13. The purpose of putting water in the newly installed septic tank was: _____ _____.
    (a) to test the septic process
    (b) to see if it would hold water
    (c) to check the overflow mechanisms
    (d) to settle the dirt under/around the tank

14. When the water was turned on, the Lupers found that: _____.
    (a) there were many leaks
    (b) there were no leaks
    (c) the pump was not working
    (d) the well was dry

15. Write the **Life Principle**: "_____ _____ _____."



Plumbing

ACTIVITIES
Lesson 8

Covering Up

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. Bruce and Chelsea were developing _____ work habits at the store.
   (a) good (b) careless (c) lazy (d) bad
2. Mr. Luper's store was a _____ supply.
3. Mr. Luper found the new septic tank to be: _____.
   (a) leaning to the right (c) satisfactory
   (b) leaning to the left (d) floating up to the top of the hole
4. Mr. Luper checked the _____ lines again before covering the trenches.
   (a) sewer (b) drainage (c) cold water (d) hot water
5. Bruce and Chelsea used _____ to cover up the trenches.
   (a) hoes (b) shovels (c) a backhoe (d) rakes
6. Mr. Luper used _____ inch plastic pipe to secure the two septic tanks together.
7. The solid line went from the septic tanks to the _____.
8. The open end of the solid line going to the house was covered with duct tape to prevent the entrance of _____.
9. The pipe with holes in it came in _____ foot lengths.
10. The drainage line was constructed to form a(n): _____.
    (a) L (b) S (c) circle (d) T
11. The drain line would provide drainage for the _____ that is released from the septic tank.
12. To _____ dirt means to press it down into a smaller area.
13. The _____ of the oil pipeline was four feet.

14. Mr. Fletcher covered both the _____ and the _____ in about thirty minutes.

15. Write the **Life Principle**: "_____ _____ _____."



Plumbing

Designing the Past and Future

ACTIVITIES
Lesson 9

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. Mr. Luper arranged for Mr. Ricks to review the family's _____ for the addition.
2. Mr. Ricks indicated he would visit the _____ to determine what would be needed to complete the renovation of the house.
3. Mr. Ricks used a _____ to design the house.
4. Mr. Rick's ***laser-***measuring device was able to _____ _____.
5. A laser device is one that operates in an invisible region of the _____ _____ spectrum.
6. Mr. Ricks plugged his laser measuring device into a: _____.
   (a) wall socket (c) telephone jack
   (b) internet connection (d) laptop computer
7. The width, length, and height of a room are its _____.
8. Mr. Ricks had been called the school *nerd* in _____ high school class.
9. _____ had a Master's degree in architecture.
10. Mr. Ricks discovered that the old house was built in the: _____.
    (a) 1870s (b) 1860s (c) 1850s (d) 1900s
11. The type of original construction was called: _____.
    (a) round rock (b) gothic (c) pioneer farmhouse (d) dog trot
12. Mr. Ricks thought that the kitchen was originally a part of the Luper house. _____
    (a) True or (b) False
13. The 'dog trot' of the original structure would likely be called a _____ today.
    (a) dog pen (b) pig pen (c) chicken pen (d) breezeway
14. Previous owners had remodeled to make two bedrooms which were located _____.

15. The Lupers were amazed at the use of _____ in house building.

16. What did Bruce think was "so cool"? _____
Why? _____
_____
_____.

17. Write the **Life Principle**: "_____
_____
_____."



Plumbing

ACTIVITIES
Lesson 10

Looking It Over

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. Chelsea and Bruce wanted to know more about their ***progenitors*** and family _____.
2. Heritage involves things: _____.
   (a) that are passed on to future generations (c) that you can remember
   (b) concerning an old house (d) of the future
3. _____ decided to video an ***interview*** with her grandparents.
4. Both Chelsea and Bruce were involved in the interviewing process using a hand-held _____.
5. Grandfather wanted to include _____ in his portion of the interview.
   (a) horse shoes (b) lamps (c) old guns (d) pictures
6. Both grandparents were proud of their ***memorabilia*** and eager to talk about past experiences. _____
   (a) True or (b) False
7. Bruce and Chelsea listened politely to their grandparents' stories, but were bored and impatient to be finished. _____
   (a) True or (b) False
8. Mr. and Mrs. Luper enjoyed watching the completed video and felt that it would be cherished by: _____.
   (a) past generations (b) present generations (c) future generations (d) the newspaper
9. Bruce and Chelsea discovered more fascinating _____ at the _____.
10. Mr. Ricks connected his computer to the: _____.
    (a) TV (b) stereo (c) radio (d) CD player.
11. Mr. Rick's computer program ***superimposed*** the _____ system over the _____.

12. The Lupers were impressed with Mr. Ricks' _____ of the proposed exterior of the house.

13. The power to see things in their true relationship with each other is called _____.

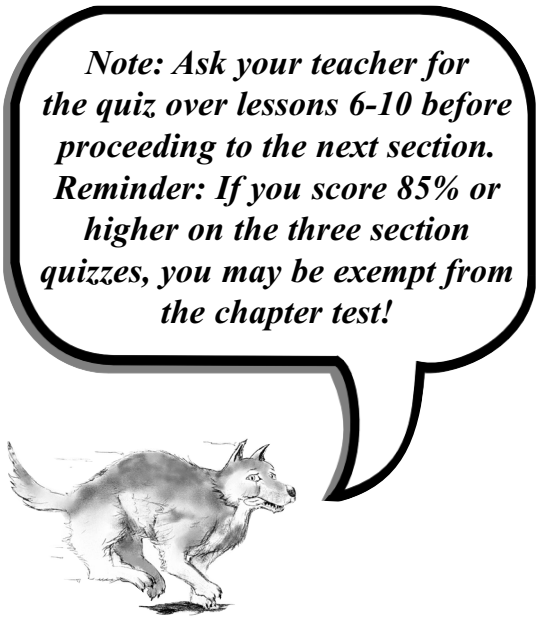
14. What was the unique, new feature proposed by Mr. Ricks? _____

15. The old plumbing and electrical materials would: _____.
    (a) be useable (c) be able to be sold
    (b) need to be replaced (d) be prohibitive in cost

16. The total cost presented for the remodeling job was estimated at _____.

17. The cost of the renovation of the old house was about the same amount that Grandfather Luper paid originally to have his own house built. _____
    (a) True or (b) False

18. Write the **Life Principle**: "_____ _____ _____."



Warning

Students under the age of 18 should not attempt projects described in this course without supervision by a competent adult.

Hands On

These are OPTIONAL PRACTICAL PROJECTS to be conducted under direct supervision of the teacher while manipulating tools and equipment included in this section. (No Answers in Key)

Complete the activities below as indicated.

1. Discuss methods of joining PVC pipes together.

_____
_____
_____
_____
_____

2. Explain the difference between drinking water and grey water.

_____
_____
_____
_____
_____

3. Explain the use of perforated pipe in a drain field.

_____
_____
_____
_____
_____



Plumbing

Commodes—How do they work?

ACTIVITIES
Lesson 11

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. Mr. Luper and Mr. Fletcher decided to do the _____ together.
2. Mr. Ricks hired _____ for his carpentry work.
   (a) roughnecks (b) teenagers (c) teachers (d) Mennonites
3. The workers that Mr. Ricks hired practiced excellent: _____.
   (a) references (b) transportation (c) craftsmanship (d) tools.
4. Bruce and Chelsea were excited about the beginning of the _____ job.
5. The ***Mennonite*** carpentry crew could finish the _____ and _____ in about a week.
6. The new floor was added using the _____ construction method.
   (a) tear-out (b) pier-and-beam (c) old-style (d) rough-and-tumble
7. Mrs. Luper decided to use the old 1920 style _____.
8. A bathroom toilet has few _____ components.
9. The three mechanical parts of a toilet include: _____ _____.
   (a) trip lever, flush valve, float system (c) gears, pulleys, chains
   (b) flusher, waterer, dumper (d) trip system, flush lever, float valve
10. A two-piece toilet consists of a bowl and a _____.
11. A ***weir*** is a _____ that acts like a dam to trap water in a _____.
12. The water trapped in the bowl helps to keep the bowl _____.
13. The water trapped in the bowl keeps the sewer _____ from escaping.
14. The bowl is emptied primarily by a _____ action started after the ***flush valve*** is opened and continues until the bowl is empty.
15. The tank holds the _____ needed to flush the toilet.

16. Water is brought into the toilet tank by way of the: _____.
(a) float system (b) flush valve (c) trip (or flush) lever (d) weir trap

17. The water is released from the tank into the bowl by the: _____.
(a) float system (b) flush valve (c) trip (or flush) lever (d) weir trap

18. The flush valve is operated by a: _____.
(a) float system (b) weir valve (c) trip (or flush) lever (d) weir trap

19. Mr. Luper decided that most of the parts in the old toilet would have to be replaced.____
(a) True or (b) False

20. Write the **Life Principle**: "_____
_____
_____."



Plumbing

ACTIVITIES
Lesson 12

Toilet Reconditioning

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. Mr. Luper removed the old _____ ***stool***.
2. The toilet bowl and tank were made of: _____.
   (a) steel (b) plastic (c) brass (d) porcelain
3. Toilets are fastened to the floor with: _____.
   (a) screws (b) bolts (c) a flange (d) a rubber gasket
4. The toilet was easily removed. _____ (a) True or (b) False
5. Mr. Luper chose a float assembly with the traditional _____ float.
6. A _____ wrench was used to remove the large nut that held the _____ _____ in the bottom of the toilet tank.
7. The trip lever had ***left-handed*** threads on the _____ .
8. A _____ connects the tank to the bowl in older model toilets.
9. To *retrofit* means to fix an item so it will go backwards. _____
   (a) True or (b) False
10. A lavatory can refer to a _____ sink or a restroom with a _____ and _____.
11. Bruce and Chelsea considered environmental issues in the process of selecting the new toilet. _____ (a) True or (b) False
12. Water ***conservation*** first became an important issue in _____ .
13. The new style toilets were designed to _____ water usage.
    (a) conserve (b) preserve (c) increase (d) eliminate

14. Water consumption in toilets has been _____by redesigning toilet mechanisms.

15. Write the **Life Principle**: "_____
_____
_____."



Plumbing

ACTIVITIES
Lesson 13

Going Shopping

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. Mrs. Luper needed a _____ for the ***master bathroom***.
2. A ***jet spa*** can be found only on some major airlines. _____
   (a) True or (b) False
3. The tub that was chosen: _____.
   (a) was white porcelain (c) was a large corner tub with out jet spa
   (b) was a white tub with a jet spa (d) was a large gray corner tub with jet spa
4. Mr. and Mrs. Luper planned on remodeling the bathroom: _____.
   (a) every year or as needed (b) next week
   (c) every 5 years to keep facilities modern (d) only one time
5. Mr. and Mrs. Luper chose a molded marble-like counter top that would have a built in _____.
6. Mr. Luper used the _____ to determine how much space was available for the larger tub.
7. Mr. Luper gave up some of his closet space so that the corner _____ could be installed.
8. Grandmother and Grandfather were asked to watch the store while Mr. and Mrs. Luper went into the city. _____
   (a) True or (b) False
9. An ***influx*** would be best described as: _____.
   (a) a chemical used in welding
   (b) material from which counter tops are made
   (c) a large group of something coming in
   (d) a serious disease such as the flu
10. The downstairs bathroom would have a white free-standing _____ to match the reconditioned toilet.

11. The children's bathroom would have very delicate and expensive bathroom fixtures. _____
    (a) True or (b) False

12. The tub/shower combination in the children's bathroom would be a ***monolithic*** unit of: _____.
    (a) marble (b) crushed stone (c) molded plastic (d) synthetic marble

13. Mr. and Mrs. Luper stopped at the neighboring town to select a _____ _____ for the master bathroom.
    (a) monolithic tub/shower combination (c) counter/lavatory unit
    (b) molded plastic sink (d) synthetic marble tub/shower unit

14. The lavatory would be made of synthetic _____.

15. Write the **Life Principle**: "_____ _____ _____."



Plumbing

ACTIVITIES
Lesson 14

Making Connections

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. The Mennonite workers helped unload the _____.
2. The tubs would need to be _____ for support.
3. All types of bathtubs are the same size. _____
   (a) True or (b) False
4. Before wallboard could be put up, the _____ had to be installed.
5. The first thing the plumbers did was to: _____.
   (a) install the cold water lines (c) test the septic lines
   (b) install the hot water heater (d) install sewer vents
6. _____ was used for water lines inside the house.
   (a) PVC pipe (c) Copper pipe
   (b) Galvanized pipe (d) Flexible hose
7. The ***copper tubing*** (pipes) needed to be _____ together.
8. A _____ torch was used to heat the pipe.
9. _____ and an _____ cloth are used to clean the copper pipe and insure good soldering.
10. The ***solder wire*** must be drawn into the joint by first heating the _____ hot enough to liquify the solder.
11. As soon as the liquified _____ flows around the fitting, the torch is removed.
12. As the _____ cools, it is drawn into the fitting, making the _____ of the pipes secure.
13. _____ pipes carry soiled water from the fixtures to the _____.
14. The purpose of traps in the drain lines is: _____.
    (a) to keep out foreign objects (c) to prevent noxious gases entering the house
    (b) to catch small animals (d) to make plumbers work harder

15. Every plumbing fixture in a house must have a (U-shaped) _____ and every trap must be _____.

16. Write the **Life Principle**: "_____ _____ _____."



Plumbing

ACTIVITIES
Lesson 15

Turning It On

You are making progress! ***Answer the following questions. Circle the correct answers or fill in the blanks with words, letters or numbers as each question indicates. Check your answers from the Answer Key. Correct all errors, then complete your next goal.***

1. The Lupers hosted a meal for _____ and _____.
2. The bathroom sink tops were: _____.
   (a) light (b) broken (c) heavy (d) the wrong color.
3. Sink traps can be made of either plastic or _____ or _____.
4. The type of sink traps used were: _____.
   (a) p-traps (b) s-traps (c) mouse traps (d) steel traps
5. The part of the trap that determines how much water stays in the trap is the _____.
6. The sink trap consisted of: _____ basic parts.
   (a) 3 (b) 5 (c) 2 (d) 4
7. The parts of the sink trap were fastened together with _____ and rubber washers.
8. The copper water supply lines can be bent to make a proper connection. _____
   (a) True or (b) False
9. Pipe ***joint compound*** helps ensure a water-tight seal and avoid _____.
10. The supply lines were connected to the ***shut-off valves*** with a _____ nut.
11. An ***adjustable wrench*** is one that can adjust to any size plumber's hand. _____
    (a) True or (b) False
12. The system was tested for leaks. How many were found? _____
13. The carpenters closed in the walls with _____.
14. A ***work order*** is a set of written instructions for a _____ or _____.
15. The meal with the workers reminded Chelsea of early frontier work parties called _____.
16. Write the **Life Principle**: "_____ _____."

Warning

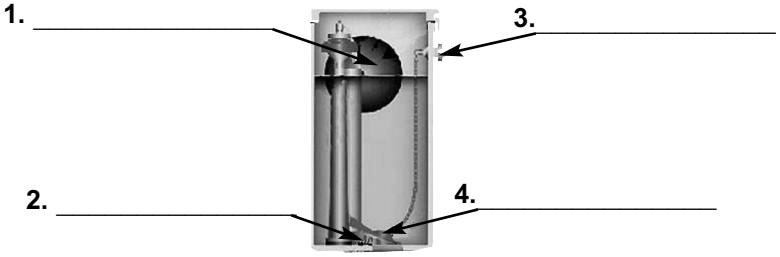
Students under the age of 18 should not attempt projects described in this course without supervision by a competent adult.

Hands On

These are OPTIONAL PRACTICAL PROJECTS to be conducted under direct supervision of the teacher while manipulating tools and equipment included in this section. (No Answers in Key)

Complete the activities below as indicated.

1. Identify the flush valve, flapper, trip lever, and float in a commode water tank.



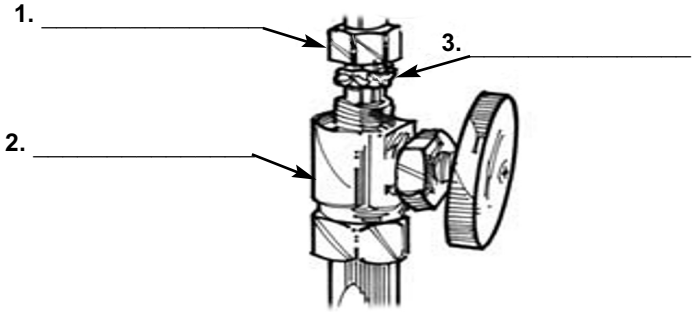
2. Discuss methods of soldering fittings with a torch.

_____
_____
_____
_____

3. Explain the use of "S" and "P" traps when plumbing a house.

_____
_____
_____
_____

4. Identify the parts of a cut-off valve.



Note: Ask your teacher for the quiz over lessons 11-15 before proceeding to the chapter test . Reminder: If you score 85% or higher on the three section quizzes, you may be exempt from the chapter test!

