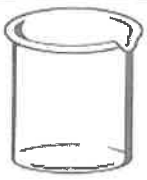
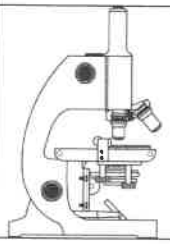
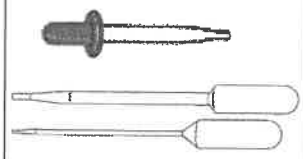
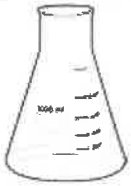
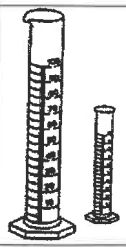
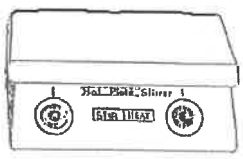
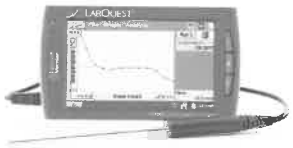
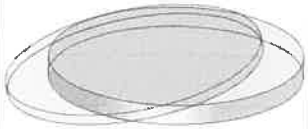
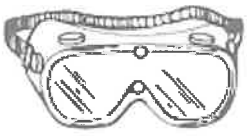
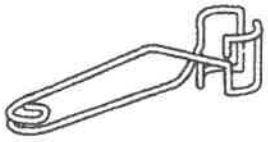
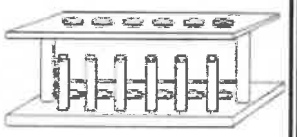
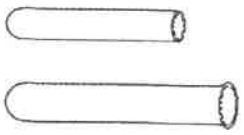
Common Biology Laboratory Equipment

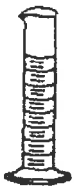
Beaker: used to hold substances		**Beaker brush:** bristles with a wire handle used to scrub glassware	
Beaker tongs: Rubber covered tongs; used to hold beakers		**Compound Light Microscope:** used to enlarge an image	
Cover slip: covers specimen on a slide		**Depression slide:** a glass slide that has a concavity in one surface	
Dissecting Pan: holds specimen being dissected		**Dissecting Tools:** kit containing scalpel, pins, probes, and scissors for use in dissection	
Dropping pipets: used to transfer small volumes of liquid		**Electronic Balance:** used to find the mass of substances	
Erlenmeyer flask: may be heated and used in titrations		**Evaporating dish:** can be heated to evaporate liquids	
Forceps: used to hold or pick up small objects		**Funnel:** used for filtration with filter paper	
Graduated cylinders: used to measure liquids		**Hot plate:** unit used to heat materials in the lab	

Inoculating loop: used to spread bacteria on a petri dish		**Labquest and probes:** technology used to collect and graph data	
Microscope Slide: supports an item being examined under the microscope		**Petri Dish**: plate used to culture microorganisms	
Plastic wash bottle squeeze sides to dispense distilled water		**Rubber stoppers**: used as corks	
Safety goggles: must be worn to protect eyes		**Spatulas**: used to transfer solid chemicals	
Stereoscope: a broad range of magnification options		**Stirring rod**: used to stir, assist in pouring liquids	
Test tube brush: bristles with a wire handle used to scrub glassware		**Test tube holder**: used to hold test tube	
Test tube rack: holds test tubes in the vertical position		**Test tubes**: used to hold materials; may be heated	
Thermometer used to measure temperature		**Watch glass**: used to cover an evaporating dish or beaker	

TOOLS OF A LIFE SCIENTIST

Use the terms from the following list to label the tools that you as a life scientist might use in the laboratory.

scissors
balance
graduated cylinder
thermometer
beaker
safety goggles
microscope
flask
metric ruler
medicine dropper
Bunsen burner
test tube
microscope slide
test tube holder
tongs
test tube rack
petri dish
hand lens
cover slip
dissecting pan
dissecting needles
forceps
dissecting pin
scalpel



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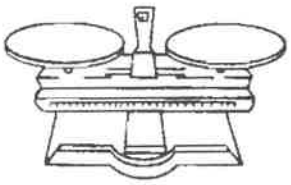

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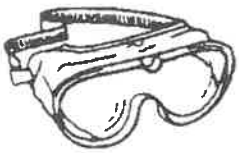

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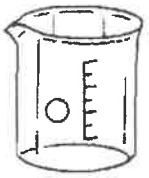

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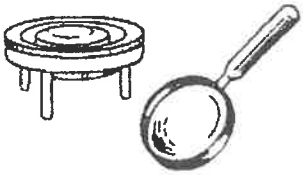

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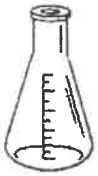

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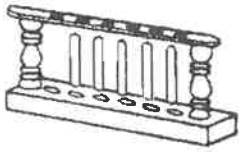

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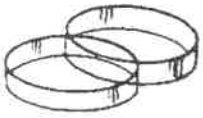

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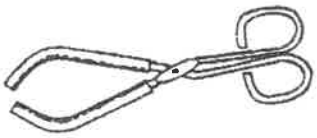

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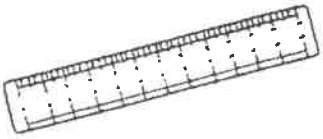

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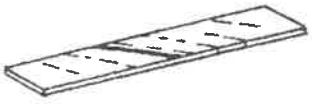

23. _____

24. _____

Safety Rules

1. Always wear safety goggles whenever you are working with chemicals or other substances that might get into your eyes.

2. Never reach across a flame. Tie back hair & remove loose clothing.

3. Immediately notify your teacher if any chemical gets on your skin or clothing to find out what to do to clean it off.

4. Never look directly into a test tube when mixing or heating chemicals.

5. Always point a test tube away from you and others when heating it over a flame or other heat source.

6. Never smell a chemical directly from the container. Wave your hand over the opening of the container and "waft" the fumes towards your nose.

7. Never taste a chemical unless you are instructed by your teacher to do so.

8. Always clean up your work area and equipment after an experiment is completed. Equipment must be returned to its proper place clean & cool.

9. Read and follow all directions exactly as they are written. If in doubt, ask your teacher for help!

10. Never mix chemicals (or perform experiments) without your teacher's permission.

11. Never run (or push someone else) in the lab.

12. Keep lids on bottles and containers when not in use.

13. Never use broken or chipped glassware.

14. Keep your work area clean and keep all materials (clothing, hair, papers, etc.) away from a flame or heat source.

15. Immediately notify your teacher if you get cut or have another injury when performing an experiment.

16. Wash your hands before and after each experiment.

Lab Safety Rules

The Bikini Bottom gang has been learning safety rules during science class. Read the paragraphs below to find the broken safety rules and use a highlighter to underline each one. How many can you find? _____. Check your answer with your teacher.

SpongeBob, Patrick, and Gary were thrilled when Mr. Krabbs gave their teacher a chemistry set! Mr. Krabbs warned them to be careful and reminded them to follow the safety rules they had learned in science class. The teacher passed out the materials and provided each person with an experiment book.

SpongeBob and Gary flipped through the book and decided to test the properties of a mystery substance. Since the teacher did not tell them to wear the safety goggles, they left them on the table. SpongeBob lit the Bunsen burner and then reached across the flame to get a test tube from Gary. In the process, he knocked over a bottle of the mystery substance and a little bit splashed on Gary.

SpongeBob poured some of the substance into a test tube and began to heat it. When it started to bubble he looked into the test tube to see what was happening and pointed it towards Gary so he could see. Gary thought it smelled weird so he took a deep whiff of it. He didn't think it smelled poisonous and tasted a little bit of the substance. They were worried about running out of time, so they left the test tube and materials on the table and moved to a different station to try another experiment.

Patrick didn't want to waste any time reading the directions, so he put on some safety goggles and picked a couple different substances. He tested them with vinegar (a weak acid) to see what would happen even though he didn't have permission to experiment on his own. He noticed that one of the substances did not do anything, but the other one fizzed. He also mixed two substances together to see what would happen, but didn't notice anything. He saw SpongeBob and Gary heating something in a test tube and decided to do that test. He ran over to that station and knocked over a couple bottles that SpongeBob had left open. After cleaning up the spills, he read the directions and found the materials he needed. The only test tube he could find had a small crack in it, but he decided to use it anyway. He lit the Bunsen burner and used tongs to hold the test tube over the flame. He forgot to move his notebook away from the flame and almost caught it on fire.

Before they could do another experiment, the bell rang and they rushed to put everything away. Since they didn't have much time, Patrick didn't clean out his test tube before putting it in the cabinet. SpongeBob noticed that he had a small cut on his finger, but decided he didn't have time to tell the teacher about it. Since they were late, they skipped washing their hands and hurried to the next class.

Obtain a Lab Safety Contract from the teacher. Read it, sign it and then complete the first lab activity.