

**TS-18 December 1971**

**Federal Wage System  
Job Grading Standards**



WCPS-2 August 2002

**FEDERAL WAGE SYSTEM  
JOB GRADING  
STANDARD  
FOR  
LABORATORY WORKING,  
3511**



**Workforce Compensation  
and Performance Service**



# LABORATORY WORKING, 3511

## TABLE OF CONTENTS

WORK COVERED .....	3
WORK NOT COVERED .....	3
TITLES .....	3
GRADE LEVELS .....	3
NOTE TO USERS .....	4
LABORATORY WORKER, GRADE 1 .....	5
LABORATORY WORKER, GRADE 2 .....	6
LABORATORY WORKER , GRADE 3 .....	7
LABORATORY WORKER, GRADE 4 .....	8



## WORK COVERED

This standard covers nonsupervisory work requiring ability to clean, prepare for sterilization, sterilize, and assemble laboratory and hospital glassware, instruments, and related items. This work includes such tasks as sorting and loading items into washing machine baskets; operating washing machines, sterilizers, water stills, and centrifuges; preparing flasks, beakers, vials, test tubes, and dishes by capping, corking, plugging, and wrapping; of glassware, instruments, tubing, adapters, connectors, etc., into a composite unit.

## WORK NOT COVERED

The following kinds of work are not covered by this standard:

- Receiving, storing, and assembling items for issue or shipment as part of a supply operation (see [Materials Handling, 6907](#));
- Loading and unloading supplies, dusting and polishing furniture, and sweeping and waxing floors (see [Laboring, 3502](#) or [Custodial Working, 3566](#));
- Preparing tissue specimens and samples; cooking and combining ingredients for media, stains, indicators, and reagents (see [NOTE TO USERS](#)); and
- Processing items into surgical trays, sets, and packs (See [NOTE TO USERS](#).)

## TITLES

Jobs graded by this standard are to be titled *Laboratory Worker*.

## GRADE LEVELS

This standard describes four grade levels. If jobs substantially exceed the level of skill, knowledge, and other work requirements described at the grade 4 level, they may warrant grading above that grade based on the application of sound job grading methods.

The grade levels described in this standard include hazards, physical hardships, and working conditions that are a regular and recurring part of the laboratory worker occupation. This standard does not provide any additional grade credit for exposure to hazards, physical hardships, and working conditions that may be of an "unusual nature" as defined in Appendix A to subpart E of part 532 of title 5, Code of Federal Regulations.



## NOTE TO USERS

There may be a question whether the work performed in some jobs (e. g., preparing surgical trays or media) is Wage Grade or General Schedule, and whether such jobs are subject to grading under the Coordinated Federal Wage System or classification under Title 5, U.S. Code. Guidance for making decisions in these cases is provided in [Section IV, "Determining Coverage by the General Schedule or the Federal Wage System,"](#) in the Introduction to the Position-Classification Standards, and in the introductory portions of such standards as the [GS-0404, Biological Technician Series](#), [GS-0622, Medical Supply Aide and Technician Series](#), and the [GS-1311, Physical Science Technician Series](#).



**3511-1****LABORATORY WORKER, GRADE 1****3511-1**

*General:* The work at this grade involves repetitive tasks with one or a few work steps such as emptying and sorting glassware items to be cleaned, loading and unloading washing machine baskets, and preparing one or a few types of less fragile, easy-to-handle glassware items (for example, beakers, flasks, or cylinders) by either capping, corking, plugging, or wrapping, etc. The grade 1 Laboratory Workers use simple handtools and equipment to do tasks such as heat sealing cellophane and plastic containers and cutting tinfoil, paper, and cotton fabric.

*Skill and Knowledge:* The work of the grade 1 Laboratory Worker requires ability to do repetitive tasks that have one or a few work steps such as emptying waste and removing caps, corks, plugs, and tape from containers and sorting items to be cleaned by size and type. The grade 1 Laboratory Workers discard or set aside broken, cracked, or chipped glassware. They do repetitive preparation work such as putting tinfoil on all flasks or placing cotton plugs in all test tubes.

The grade 1 Laboratory Workers use simple handtools and equipment such as paper and fabric cutters, staplers, scissors, and heat sealing machines. They have the ability to work safely in doing tasks such as moving carts without hitting things and loading items into washing machine baskets without breaking them.

Some grade 1 Laboratory Workers work around biologically contaminated items which require them to observe common safety precautions, e.g., to look for a color change of the pressure sensitive sterilization tape before handling items.

*Responsibility:* The grade 1 Laboratory Workers receive initial oral instructions on the work to be done and does the work the same way each time. They are careful in handling glassware, instruments, and equipment items to avoid breakage and possible injury to self and others. Their work is periodically checked by the supervisor to see that instructions are followed and that production standards are met.

*Physical Effort:* The laboratory workers frequently lift and carry objects weighing from 5 kilograms to 14 kilograms (10 to 30 pounds), such as pans filled with glassware, and pushes and pulls carts requiring similar effort. They occasionally handle moderately heavy objects weighing up to 18 kilograms (40 pounds) such as large containers of supplies. The work requires continuous walking, standing, or sitting and considerable arm and hand movements to operate equipment and to do preparation work.

*Working Conditions:* Work areas are hot, humid, and generally noisy due to the operation of equipment such as washing machines, autoclaves, and air compressors. There is frequent chance of minor injuries such as cuts, scrapes, and burns, and the possibility of exposure to contaminated materials. The laboratory workers are normally provided with protective clothing such as masks, gloves, and gowns. As necessary, they receive inoculations against infectious diseases.



**3511-2****LABORATORY WORKER, GRADE 2****3511-2**

*General:* The work at this grade involves routine tasks that have a sequence of work steps such as operating washing machines, cotton plugging machines, and centrifuges. In addition, the work at this grade includes the routine preparation of one or a few types of fragile or hard-to-handle glassware and instrument items, such as hand-plugging pipettes and inserting needles to syringes.

The work at this level is more difficult than at the grade 1 level because more steps are required to do the tasks, and more care and concentration are needed to handle fragile items.

*Skill and Knowledge:* The work of grade 2 Laboratory Workers requires the ability to do routine tasks that have a sequence of work steps such as handwashing items through a series of consecutive cleaning steps and operating washing machines by inserting baskets, adding the specified amount of detergent and other cleaning solutions, and routinely setting timers to start the wash cycle. The grade 2 Laboratory Workers routinely prepare one or a few types of fragile or hard-to-handle items such as putting syringes together by matching the numbers of syringe plungers to those of syringe barrels. They visually check washed items for obvious chips, burrs, waste residues, stains, detergent films, and other imperfections resulting from the cleaning process. They also prepare solutions, such as acid cleaning, glucose, and saline mixtures which do not require exact measuring, and counts, dates, and labels items to be sterilized or placed in storage.

*Responsibility:* After receiving initial oral and written instructions, the grade 2 Laboratory Workers do their work routinely according to established procedures. They use greater care than at the grade 1 level to avoid breakage of fragile or hard-to-handle items. Their work is periodically checked by the supervisor to see that work procedures are followed and that production standards are met.

*Physical Effort:* Physical effort at this grade is the same as that described at the [grade 1 level](#).

*Working Conditions:* Working conditions at this grade are the same as those described at the [grade 1 level](#).



**3511-3****LABORATORY WORKER , GRADE 3****3511-3**

*General:* The work at this grade involves using a knowledge of established work procedures for a variety of types of glassware in selecting the proper way to do tasks such as capping, corking, plugging, wrapping, and sterilizing. In comparison, the grade 2 Laboratory Workers handle fewer kinds of items and do their work routinely.

*Skill and Knowledge:* The grade 3 Laboratory Workers apply a knowledge of different work procedures in doing their work. For example, in preparing a variety of types of glassware, they cover certain items with tinfoil or fabric; plugs others with cotton, corks, or rubber caps; wraps some items individually and others in groups. When loading and operating sterilization equipment, they consider whether the items will withstand high temperatures, e.g., items such as beakers and flasks prepared with gauze, cotton, paper, or tinfoil are placed in the electric sterilizers, but the same items prepared with rubber or plastic caps, stoppers, or tubing are sterilized by another method. They apply a knowledge of the techniques for placing and spacing items in the sterilizer and for adjusting dials of the sterilizer to regulate pressure, temperature, and time periods. (Dial settings are held constant for most items sterilized; special instructions are given for packaged and other items that are not routinely processed for sterilization.)

*Responsibility:* The grade 3 Laboratory Workers receive initial oral and written instructions that indicate the work to be done. They frequently must select from established work procedures the proper way to do each task. For example, they use judgment in deciding which items should be sterilized by dry heat and which items must be sterilized by gas or steam. Their work is periodically checked by the supervisor to see that the correct work procedures are used and that production standards are met.

*Physical Effort:* Physical effort at this grade is the same as that described at the [grade 1 level](#).

*Working Conditions:* Working conditions at this grade are the same as those described at the [grade 1 level](#).



**3511-4****LABORATORY WORKER, GRADE 4****3511-4**

*General:* The work at this grade involves varying work procedures in processing a wide variety (several hundred types and sizes) of glassware and related items. The work at this grade also includes assembling special purpose apparatus such as seitz and milipore filters, bleeding units, and continuous pipefitting syringes which have several parts and different assembly steps.

This work is more difficult than work described at the grade 3 level because the grade 4 Laboratory Workers use more judgment in processing a wider variety of items and often must consider the special needs of the user in varying work procedures; or they use greater skill in assembling special purpose apparatus.

*Skill and Knowledge:* The grade 4 Laboratory Workers apply an extensive knowledge of laboratory processing work to clean, prepare, and sterilize a wide variety of types, sizes, and shapes of glassware and related items. For example, they decide whether items should be washed by hand or machine, the proper size of wash loads, the proper timing of wash cycles, the kind and amount of detergents to use, and the sequence of cleaning steps to be followed. They sort items that will be used for different purposes depending upon their condition, e. g., they decide which items are suitable for tissue culture work; which may be used for less exacting purposes; which may be fire-polished and salvaged; and which are not salvageable for any purpose. The grade 4 Laboratory Workers also prepare items in special ways and frequently consider the requirements of different users in regulating pressure, temperature, and time periods on sterilization equipment.

In some jobs, the grade 4 Laboratory Workers are skilled in assembling special purpose apparatus which have several parts and different assembly steps such as seitz and milipore filters, bleeding units, and continuous pipetting syringes. They follow assembly diagrams and sketches in selecting the specified types and sizes of glassware, instruments, tubing, adapters, connectors, etc., and in arranging and connecting these parts into a composite unit. In doing this work, they check each part to be sure that it is in good operating condition and replace those parts that are defective or in need of repair.

*Responsibility:* At this grade, the laboratory workers have more responsibility than the grade 3 Laboratory Workers in varying work procedures to process a wide variety of items and in considering special user needs, or in following diagrams and sketches to assemble special purpose apparatus. They receive initial oral and written instructions on the work to be done, and are expected to complete their work with only occasional checks by the supervisor.

*Physical Effort:* Physical effort at this grade is the same as that described at the [grade 1 level](#).

*Working Conditions:* Working conditions at this grade are the same as those described at the [grade 1 level](#).

