

The Howard County Public School System

Job Analysis

JOB TITLE: Science Assistant

DOT/O*NET Code: 099.327-010/25-9041.00

POSITION INFORMATION

Summary of Duties: The Science Assistant works under the supervision of the science department head at the high school level. He or she is responsible for preparing materials and equipment for use in the science laboratories, and maintaining records on experiments conducted. The sciences involved include chemistry, biology, earth science, physics, and anatomy and physiology. The Science Assistant performs the majority of his or her duties in an area designated for storage of lab equipment and supplies. He or she supervises Student Lab Aides, assigns tasks to the Aides, and prepares and administers tests related to their job duties. The Science Assistant must understand the proper storage and use of chemicals, and other safety issues related to the use of lab equipment and materials. The Science Assistant may be asked to assist a teacher in the facilitation of a laboratory activity, especially when there are safety concerns.

Essential Job Functions:

- Supervise Student Aides; assign tasks to Student Aides; instruct Student Aides in the safe handling of chemicals and supplies; prepare and administer Student Aide tests.
- Prepare and organize lab materials on carts, take materials to the classroom, and set up materials for use; some items may be stored in classroom.
- Store and handle chemicals in accordance with established procedures; maintain current chemical safety information.
- Label and inventory chemicals and supplies.
- Maintain records on labs, including how they are to be done, the length of time they take, and how to safely use the substances and equipment involved.
- Order supplies for the labs.
- Collect all chemicals that cannot be poured down the drain; pack for pickup.
- Receive, unpack, and store ordered materials.
- Serve as the central clearinghouse for audio/video equipment; provide the equipment to teachers as needed; wheel cart of laptop computers to teachers as needed.
- Label and stamp new textbooks; distribute new textbooks to teachers; collect and store textbooks at the end of the school year.
- Coordinate equipment repair; collect equipment and send out for repair.
- Clean equipment
- Wash tables after labs.
- Test eyewash center monthly.
- Test shower twice a year.

- Assist science teacher in the facilitation of lab activities, when appropriate.
- Assist on field trips.
- Responsible for lunch duty and other general duties as assigned.

Machinery, Tools, Equipment, Work Aids Used:

- Computer
- Microwave, stove, dishwasher
- Electric balances
- Paper Cutter
- Chemicals
- Test tubes and test tube racks/holders
- Flasks, beakers
- Graduated cylinders, burettes
- Stock bottles, reagent bottles
- Petri dishes
- Pipettes
- Funnels
- Metals
- Sand; topsoil
- Thermometers
- Crucibles
- Pestles
- Tongs
- Knives
- Lenses
- Gauze
- Ph papers/Ph meters
- Condensers, incubators, autoclaves, microscopes
- Drying cabinets, water baths, centrifuges, spectrometers
- Distilling apparatus
- Preserved animals/specimens
- Instructional materials (books, paper, etc.)
- Cleaning equipment and agents
- VCR's, LCD projectors, laser disk players
- Safety/splash goggles
- Rubber gloves, latex gloves, hot gloves
- Aprons
- Fume hood; portable shields
- Eyewash center
- Shower

Products/Materials Handled:

- All of the items listed above under machinery, tools, equipment, work aids used
- Paper, pencils, pens, textbooks
- Telephone

EDUCATIONAL/VOCATIONAL PREPARATION

- High School Diploma required.
- On-the-job training is provided, to include safety seminars.

REQUIRED CERTIFICATES/LICENSES

- N/A

KNOWLEDGE, SKILLS AND ABILITIES

- Ability to communicate effectively with students and teachers.
- Ability to communicate information and ideas so that the students will understand.
- Ability to carefully follow the instructions of the teacher.
- Ability to work independently and as part of a team.
- Knowledge of the proper handling of chemicals and equipment.
- Knowledge of safety procedures.
- Experience in a laboratory and/or school setting.

JOB SITE ENVIRONMENT

Work Site

- Inside 100%

Temperature Factors

- As encountered in the preparation of materials.

Noise Factors

- As encountered in the operation of equipment.

Vibrations (continual, intermittent, body strain from repeated motion or shock):

- N/A

Air Quality Factors

- May be exposed to fumes or odors from chemicals

Working Surface

- Carpeted and tiled floors, even and flat
- Stairs

PHYSICAL REQUIREMENTS

Non-Material Handling:											
<u>Not Required</u>		<u>Rarely</u> <1%		<u>Infrequently</u> <8%		<u>Occasionally</u> <33%		<u>Frequently</u> <66%		<u>Constantly</u> >67%	
		N	R	I	O	F	C	<i>Description of Requirements at one time and throughout the shift</i>			
Bend				X				Usually for less than 10 seconds at a time while stocking a cart or storing or retrieving material from shelves. Alternatives to bending may include sitting on a stool, squatting, and kneeling.			
Squat				X				Usually for less than 10 seconds at a time while stocking a cart or storing or retrieving material from shelves. Alternatives to squatting may include sitting on a stool, bending, and kneeling.			
Kneel			X					Usually not required. May be used to reach low shelves or to reach the floor for cleaning up or retrieving fallen objects. Alternatives to kneeling may include sitting on a stool, bending, and squatting.			
Crawl			X					Not required.			
Balance							X	Needs to be stable on level surfaces to move about in a crowded workroom in proximity to racks of glass objects.			
Reach Above Shoulder					X	-----	X	Needs to be able to reach overhead to store and retrieve objects from shelves. Repeated overhead reaching is needed when shipments are received during the school year and at the beginning and end of the year.			
Sit				X				Usually limited to up to 20 to 30 minutes at a time.			
Stand							X	Usually combined with <u>intermittent walking</u> and is required for most of the work day on successive days.			
Walk							X	<u>Intermittent walking</u> is required for most of the work day on successive days.			
Running			X					Usually not required except in emergency situation (rarely).			
Alternate Sit/Stand							X	Alternative positions are squatting and kneeling.			
Hand Dexterity							X	Needed to manipulate glass vessels, pour granular and liquid substances, and manipulate small and medium size objects.			
Hand Controls					X			May need to operate equipment controls.			
Foot Controls								Usually not needed.			
Stair Climb			X					Work between two floors is needed in some locations. Although there is an elevator, <u>stair climbing may be needed to conserve time.</u>			
Ladder Climb			X					Usually not required. May be needed in some locations to retrieve objects using a step ladder.			
Driving								Not Required			

Material Handling:											
<u>Not Required</u>		<u>Rarely</u> <1%		<u>Infrequently</u> <8%		<u>Occasionally</u> <33%		<u>Frequently</u> <66%		<u>Constantly</u> >67%	
Repetitions per day		1-10		<25		<100		100-500		500+ per day	
		N	R	I	O	F	C				
Lift Floor to Knuckle			50					May be needed to move containers of supplies or equipment.			
10 in. to Knuckle			50		25	12		Needed to store and retrieve supplies daily and in bulk at times of deliveries (4 - 6 times a year) and at the beginning and end of the school year.			
Knuckle to Shoulder			25	20	15	5		Needed to retrieve and store equipment.			
Shoulder to Overhead			20		10	5		Needed to retrieve and store equipment.			
Push			40	20	10			Needed to move equipment carts often. Heavy supply carts are moved less often.			
Pull			40	20	10			Needed to move equipment carts often. Heavy supply carts are moved less often.			
Carry			50			10		Needed to move supplies or equipment, which often can be assisted with using a cart.			

JOB ANALYSIS REVIEW

Printed Name

Signature

Title

Howard County Public School System

Date

JOB ANALYSIS PREPARATION

Printed Name

Signature

Title

Company

Date

Printed Name

Signature

Title

Company

Date