

## **Goldendale Fire Department Basic Level Skills Test Information**

Juniors at the basic level will be tested on the following items before they are given the Advanced Level Junior Status.

- **Personal Protective Equipment (PPE).** NOTE: Junior must be fit tested with a SCBA mask prior to getting signed off on PPE.
  - Can name the three layers of PPE and each layer's purpose
    - Thermal Layer - Protects firefighter from heat
    - Moisture Barrier Layer - Protects from water, steam, hot vapors and corrosive liquids.
    - Outer shell - Protects from snags and tearing and is also fire resistant with reflective tape on the outside.
  - Demonstrate proper donning of PPE and SCBA mask
  - Proper maintenance and care of all PPE
  - Misc. Equipment
    - Vinyl Gloves
    - Ear Plugs
    - Wild Land Gear (If applicable)
  
- **Can identify and state the different duties of each engine, brush and ladder apparatus**
  - Engine - Structure Fires - 61-11 (HME), 61-63 (Darley), 61-64 (Seagrave)
  - Brush Trucks - Wild Land/Brush Fires, Personnel Transport - 61-51 (Jeep), 61-52 (Six pack)
  - Ladder Apparatus - Structure Fires (61-41)
  - Command - OIC - 61-21
  - Support vehicles - Personnel Transport, Air Supply (61-24) - 61-24 (Air Van), 61-23 (Pickup)
  
- **Can state the command structure and what each position does**
  - Chief - Howard Scartozzi
  - Assistant Chief - Marty Hudson - Training Officer
  - Deputy Chief - Steven Randall - Supply Officer
  - Captain - Ryan Birney - Junior Firefighter Supervisor, Assistant Training Officer
  - Captain - Mike DeLangis - Assistant Supply Officer
  - Full Volunteer Firefighters
  - Junior Firefighters
  
- **Understand the Incident Command System. (Command, Operation, Staging)**

- **Understands how to use GFD Radios**
  - How to turn on and select correct channel/frequency
  - How to communicate with Radios
    1. Hold down talk button and wait for repeater (approx 1/2 to 1 second)
    2. State you vehicle number
    3. State the vehicle number of the person you want to talk to
    4. Release talk button wait for response
    5. Give message
    6. Wait for response (usually copy or received)
  - Maintenance and care of Radios - How to clean
    - How to charge (turn radio to main fire frequency and turn off before putting in charger)
  
- **Demonstrates all aspects of how to correctly connect a structure truck to a hydrant and which position in the truck usually performs each task.**

"Hydrant Man" duties - Person sitting in seat behind officer on 61-11. Person setting on either the officer seat or person behind officer in jump seat on 61-64. Person in officer seat on 61-63.

1. Pulling hose and tools off truck safely and wraps hose around hydrant, then stand on it to prevent it from moving.
2. Tell engineer to "Drive!!!"
3. Once it is safe to do so unwrap hose from hydrant and prepare tools for use.
4. Loosen and remove hydrant caps
5. Make sure 2 1/2 inch gate valve is closed and put it on the side of hydrant that is furthest away from fire at a 45 or 90 degree angle to the hydrant. You must put it at a 45 or 90 degree angle or the top of the gate valve will interfere with opening the hydrant. We attach a gate valve to the hydrant so that if a second engine needs to get it's own water supply from hydrant that it can just attach to the 2 1/2 gate and open it. If we didn't have the gate valve on the hydrant, it would have to be shut down to attach to it which would cut off the first engines water supply.
6. Attach the 4 inch hose to the hydrant
7. Wait for signal from engine that they are ready for you to open hydrant (1 long and 2 short blasts of the air horn) or call on radio and tell engineer of engine that you are ready to open hydrant.
8. Once signal is given, open hydrant by turning the top of the hydrant with a pipe wrench. Continue to turn until it's stops.
9. When done report back to your engine for further orders.

Second hydrant man - Usually person sitting closest to the first hydrant man in the engine.

10. Once engine stops moving (after 2<sup>nd</sup> step above) pull off the rest of the 4 inch hose section making sure it's enough hose to get to the port your connecting it to.
11. Disconnect hose leading to the hydrant from hose still in the hose bed of the engine.
12. Connect end of hose leading to hydrant to main 4 inch input port of engine.
13. Only on 61-11: open bleeder valve so that air in hose can be bled off. It's not good to get air into the pump. When the hydrant is turned on water will start to flow out of the bleeder valve. Once this happens close the bleeder valve.
14. There is always a valve on the input port on the truck. Once water is to this valve ask the engineer if he is ready to open this valve. If he says it's, ok open it.

- **Demonstrates proper usage and donning and doffing of SCBA equipment.**

**NOTE:** Junior must be signed off on PPE before getting signed off on SCBA equipment.

- Main purpose of SCBA: Gives clean breathing air while surrounded by toxic air.
- Juniors must be able to name, identify and give the purpose of each of the following parts of the SCBA.
  - Air Tank - Must also know the following about the Air Tank:
    - GFD air tanks are made of carbon fiber so that they don't way as much.
  - Cylinder Gauge - Must also know the following about the Cylinder Gauge:
    - PSI of when tank is full (2250 PSI)
    - 2500 PSI tank is considered a "Low Pressure" air tank. 4000 PSI is considered to be "High Pressure."
  - High Pressure Hose
  - High Pressure Regulator - Must also know the following about the High Pressure Regulator:
    - PSI pressure on either side of the regulator - Air tank side = Air tank pressure. Mask side = approx. 90 PSI
  - Low Pressure Hose
  - Low Pressure Regulator - Must also know the following about the Low Pressure Regulator:
    - PSI pressure on either side of the regulator - Air tank side = 90 PSI. Mask side = Just about atmospheric pressure.
    - Reason why pressure is just above atmospheric when it enters mask: So that if there is a brake in the air seal between the mask and the face that the air will escape out rather than in. This protects the firefighter from inhaling toxic gas.

- Low Pressure Regulator Bypass Valve - Must also know the following about the bypass valve:
      - May help with claustrophobia when activated by pushing air into your SCBA face.
      - Helps defog face mask
      - Uses air more quickly
      - May give air to firefighter if Regulator is damaged or malfunctioning.
    - SCBA Mask
    - Regulator Gauge
    - Shoulder Straps
    - Waist Strap
    - Back Plate - Should also know the following about the back plate:
      - 1 possible use for hole in top of back plate is for storage of pack so that it can be hung up
      - Another possible use for extrication of a down firefighter. Can be used to put a hose strap thru to pull a firefighter out of a bad situation.
    - Whistle - Must also know the following about the whistle:
      - About how much time you have to get out of building when your whistle first goes off (approx. 5 min)
      - Factors that effect how long a tank will last you when using
        - Physical Fitness of firefighter
        - How hard the firefighter is working while "on air"
        - How the firefighter breaths while on air. If a firefighter breaths slow and deep they will use up less air.
        - Talking uses up air faster then not.
    - Personal Alert Safety System (PASS) Device - Must also know the following about the PASS Device:
      - How to activate a PASS Device
      - How to deactivate a PASS Device
      - How to manually set a PASS Device off
      - 1 reason why a firefighter would manually set a PASS off while at a fire scene would be if the he or she needed help or was trapped.
  - Check out pack BEFORE putting it on to make sure it is working order and has air in it.
  - Donning SCBA by coat method
  - Donning SCBA by over the head method
  - Doffing SCBA safely and loosening all straps all the way.
  - Maintenance and Cleaning of SCBA Packs
- **Understand proper scene safety**
    - This will be done every Monday with the Junior's Primary Supervisor

- This will be the last thing to be signed off.
- **Understands Junior member limitations at an emergency scene**
  - Basically this section is to find out if you know the rules or not.
- **Can demonstrate proper ladder evolutions (parts of, types, carries, placement, and storage)**
  - Types of Ladders:
    - **Single Ladders** are nonadjustable in length and only have 1 section.
    - **Roof Ladders** are usually single ladders that have Hooks on them that can hang from the peak of a roof to allow something for firefighters to hold onto while doing work on roofs
    - **Folding Ladders** (also called **collapsing ladders**) can collapse so that the beams are next to each other.
    - **Extension Ladders** are adjustable in length. It has 1 base section and 1 or more fly sections
    - **Ground Ladders** are any ladder that is manually carried to the desired position and manually raised, positioned, and lowered.
    - An **Aerial Ladder Apparatus** is an engine with a ladder on it.
  - Juniors must be able to name, identify and give the purpose of each of the following parts of a Ladder.
    - **Beams** (Side Rail of a ladder) support Rungs
    - **Rungs** (Cross members of a ladder) are what the firefighters step and hold onto while using the ladder.
    - The **Base Section** is the section of an extension ladder that
    - **Dogs** (also called **Pawls** or **Locks**) are attached to the inside of the beams on fly sections and are used to hold the fly section in place after it has been extended
    - The **Butt** (also called the **Heel**) is the bottom end of a ladder.
    - **Butt Spurs** are metal safety plates or spikes attached to the bottom of the beams of the base section of a ladder. They keep the bottom of the ladder from moving while in use.
    - The **Fly Section** is the upper sections of an extension ladder.
    - **Guides** are wood or metal strips, sometimes in the form of slots or channels, on an extension ladder that guide the fly section while being raised.
    - The **Halyard** is a rope or cable that is used to raise and lower fly sections of an extensions
    - A **Pulley** is a small grooved wheel through which the halyard is drawn to raise a fly section of an extension ladder.
    - **Hooks** are a pair of shaped curved devices at the top of a roof ladder that fold outward from each beam so that they can be hooked on the peak of a house.

- **Safety Shoes** are rubber or neoprene foot plates, usually of a swivel type, attached to the butt end of the beams or a ground ladder.
    - **Stops** are wood or metal pieces that prevent the fly section from being extended too far.
    - The **Top** (also called the **Tip**) of a ladder is the extreme top of a ladder.
  - Selecting the correct ladder for the job
    - When leaning against a wall the angle of the ladder should be approx. 75.5 degrees. An easy way of measuring that is to stand on the bottom rung and extend your arms straight out in front of you. You should be able to grab a hold of the beams without leaning your body forward or backward.
    - If using a ladder to get on a roof, the ladder should be 4 to 5 rungs higher than the roof. This means you may want to use an extension ladder.
    - If climbing on a roof use a roof ladder.
    - When rescue from a window opening is to be performed, the tip of the ladder should be placed just below the windowsill
    - When used for ventilation, the tip should be three or four runs above the windowsill.
    - If in an area that is hard to maneuver in use a folding ladder.
    - A Ladder's length is marked on the side. This number gives the length of the ladder when it's fully extended. However, the reach of the ladder will be less than the length because the ladder must be at an angle to actually be used.
  - Carrying Ladders
  - Climbing Ladders
    - When climbing ladders, hold on to the rungs and not the beams.
  - Cleaning and Maintaining Ladders
    - Un-removed dirt or debris from a fire may collect and harden to the point where ladder sections don't work correctly. Most dirt and debris can be removed with soap, running water and a brush.
    - Specific parts to check when cleaning a ladder are: rails, rungs, guides, halyard, pulley, and dogs.
- **Can demonstrate proper hose handling (nozzle and stream types, hose sizes and connections, care and cleaning of hose lines and hose rolls and lays)**
  - Hose types (Supply, Attack, and Suction), Sizes and What Each are Used For:
    - General Info for most hose lines used at the Goldendale Fire Department:
      - Each section is 50 feet in length below unless otherwise specified.
      - There are 9.5 threads per inch on the hose couplings.
    - Supply:

- 2-1/2 Inch Hose
    - 4 Inch Hose (Main Water Supply Line)
  - Attack:
    - Wild Land Hose (Forestry or 1 inch hose)
    - Booster Line Hose - Approx. 200 feet in length and only 1 length per reel/apparatus
    - 1-1/2 Inch Hose (Cross lay)
    - 2-1/2 Inch Hose (Blitz Line)
  - Suction:
    - Hard Suction Hose - GFD has a number of lengths of hard suction hose varying from 6 feet up to 20 feet but there is only 1 size on all of them and that is 2-1/2 inch. Suction hose lines are used for siphoning into the tank of the apparatus from water sources that do not have their own water pressure such as rivers, lakes and the city fire department reservoir.
- Nozzle and Stream Types:
  - **NOTE:** During a test, juniors must be able to do all of the following.
    - Locate and identify each nozzle on any given GFD apparatus
    - Know what size of hose line is normally used with each nozzle
    - Know what type of stream the nozzle puts out
    - Know how to use the nozzle correctly
    - Know the correct care and maintenance procedures of each nozzle
  - Stream Types:
    - Solid - A solid stream is a fire stream produced from a fixed, smoothbore nozzle. The solid stream nozzle is designed to produce a stream as compact as possible with little shower or spray.
    - Fog - The term fog stream is commonly used in the fire service to describe a patterned stream composed of water droplets. The design of most fog nozzles permits adjustment of the fog tip to produce different stream patterns from the nozzle.
    - Broken - A broken fire stream is a stream of water that has been broken into coarsely divided drops. The Goldendale Fire Department's piercing and chimney nozzles produce this type of stream.
  - Adjustable Fog Nozzle - Fog steam - Located on all GFD structure apparatus
  - Boring Nozzle - Solid/straight stream - Located on 61 - 63 and 61 - 64
  - Chimney Nozzle - Broken stream - Located on 61 - 11

- Foam Nozzles - Foam - Located on 61 - 63
  - Piercing Nozzles - Broken stream - Located on 61 - 11 and 61 - 63
  - Water Curtain Nozzle - Fog stream - Located on 61 - 64 and 61 - 63
- Water Hammer - When the flow of water through a fire hose or pipe is suddenly stopped, the resulting surge is referred to as water hammer. Water hammer can often be heard as a distinct sharp clank, very much like a hammer striking a pipe. This sudden stoppage results in a change in the direction of energy, and this energy can damage or even break water lines, pumps, mains and couplings. To avoid water hammer open and close water valves slowly.
- Hose Connections and Connectors:
  - Coupling or Brass - The metal connector at each end of the hose line
  - Higbee Cut - The Higbee Cut is a special type of thread design in which the beginning of the thread is "cut" to provide a positive connection between the first thread of opposing couplings, which tends to eliminate cross-threading.
  - Higbee Notch/Indicator - is a marking on the outside of the coupling that tells you where the Higbee Cut is.
  - To use the Higbee Indicator to attach two hose lines:
    1. First check to see if the gasket is in position and looks to be in good working order. Gaskets should be free of cracks or brakes.
    2. Line up the indicators of each line end while inserting the male end into the female.
    3. Then turn end of female coupling.
  - Connectors:
    - Gate Valve - Gate valves are used on hydrants to allow for other apparatus to have access to the hydrant without shutting down the flow of water to the first engine.
    - Wye - Used to make two hose lines out of one.
    - Siamese - Used to combine two hose lines into one.
    - Size Reducing and Size Increasing Adaptors - Used to connect two different size hose lines.
    - Double Male Adaptors - Double male adaptors are used to connect two female hose ends together.
    - Double Female Adaptors - Double female adaptors are used to connect two male hose ends together.
- Care and Cleaning of Hose Lines:
  - How Hose Lines Get Damaged
    - Mechanical Damage - Worn places, rips, abrasions, crushed or damaged couplings and cracked interlinings
    - Thermal Damage - Exposure of hose to excessive heat can char, melt or weaken the fabric and dry the rubber lining of the hose.

- Mildew and Mold Damage - Mildew and mold cause decay and the deterioration of hose lines
    - Chemical Damage - Chemicals and chemical vapors can damage the rubber lining and often cause the lining and jacket to separate.
  - How to Clean Hose Lines
    - Soap, Water and a Brush
    - Jet Spray Washers
  - Drying Hose Lines is done by hanging the hose line up to dry on a hose rack.
- Hose rolls used at the Goldendale Fire Department:
  - Service Roll (also called Strait Roll) - Male coupling in the middle of roll. Usually used when hose needs to be cleaned or serviced after it is used.
  - Doughnut Roll - Middle of hose in middle of roll. The doughnut roll is used while in storage after the hose is clean, dry and ready to be used again.
- Hose Lay:
  - Forward Lay and Reverse Lay:
    - A forward lay is when the hose line is loaded in the hose bed of the apparatus so that when responding to a fire the engine must first stop at the hydrant and get all that is needed to hook up to the hydrant off the engine before continuing to the location of the fire. The female coupling of the hose is the first to come off the engine when a forward lay is used. The GFD uses forward lays on all our structure apparatus.
    - A reverse lay is loaded exactly opposite to the forward lay. A reverse lay is loaded in the hose bed of the apparatus so that male end of the hose line comes off the bed first. This means that the apparatus must respond to the location of the fire first and then unload all personnel and tools needed to fight the fire before continuing to the hydrant to hook it up.
  - Hose Loading Information:
  - Dogleg (Also called a Dutchman, short fold or reverse bend) - A dogleg is a fold in a hose line that allows for additional hose length to be used up to prevent a hose coupling from being flipped over or turned during the hose loading process.
  - Accordion Load - Used on structure apparatus for some 2-1/2 inch hose lines.
  - Flat Load - Used on structure apparatus for some 2-1/2 inch and all 4 inch hose lines.
  - Minuteman Load - A minuteman load is intended to be deployed without dragging any of the hose on the ground. The hose is flaked off the top of the shoulder as the firefighter advances toward the fire.

- **Understands the name and different types of tools (Hand vs Power and Cutting vs Prying vs Striking)**
  - Hand Tools: **NOTE:** Juniors should be able to give the purpose of and find each of the following tools on any given GFD engine (61-11, 61-64 or 61-63) in less than 30 seconds per tool.
    - **Spanner Wrench** - A hand tool used to tighten and loosen hose line couplings. Stored on most GFD apparatus.
    - **Hydrant Wrench** - A hand tool that can be used to tighten and loosen hose line couplings but its main use is to open and close hydrants.
    - **Hose Clamp** - Used to temporarily stop flow of water thru a hose (usually 2 1/2 or 4 inch supply lines).
    - **Water Pump and Bladder (Pee Can)** - Consists of a hand water pump and a bag of water. Usually used on wild land fires. Stored only on GFD brush apparatus.
    - **Pike Pole** - Basically a pike pole is a long stick with a hook at the end. It's used for pushing, pulling or exposing stuff that is otherwise out of reach.
    - **Axe and Pulaski** - Juniors should know the difference between a flat-head axe, a pick-head axe and a pulaski. A pick-head axe is an axe with a spike protruding out the back side of the axe head. A flat-head axe doesn't have this spike but a flat surface that can be used as a hammer. A pulaski is usually a wild land axe that has the standard axe blade on the front and a scraping tool on the back side of the head.
    - **Hooligan and Halligan** - Hooligans and halligans are basically the same tool. They both are mainly used for prying. On one end they have a hammer style claw and on the other are two different prying appendages. One is of a rounded spike style and the other is more long and flat. The only difference between a hooligan and a halligan is that the halligan is more a light duty tool. It's more light weight and has a hollow shaft whereas the hooligan doesn't. The GFD only employs hooligans and NOT halligans.
    - **Pry Bar** - GFD has a few different types and sizes of pry bar but the most used is the 51 inch pry bar.
    - **Tool Box** - Miscellaneous tools, hammer, phillips and flat-head screwdrivers and wrenches
    - **Hose Straps** - Issued by Supply Officer with PPE, Not stored on Apparatus.
  - Power Tools: **NOTE:** Juniors should be able to give the purpose of and find each of the following tools on any given GFD engine (61-11, 61-64 or 61-63) in less than 30 seconds per tool.
    - **Smoke Ejector** - An electric fan. Used to suck smoke and fumes out of a structure. This increases visibility and safety for firefighters inside the structure.

- **Positive Pressure Ventilation Fan** - High speed gas powered fan. Used to create a higher air pressure inside a structure which pushes smoke out. This makes it much easier for firefighters to see the source of fires and any hazards that might otherwise be hidden by the smoke.
  - **Generators** - Portable gas/diesel power supply. All the generators that are in use by the GFD for emergency purposes are mounted or stored on an apparatus.
  - **Chain Saws (Gas and Electric)** - Gas or electric cutting device. Used mainly for ventilation and debris removal but can also be used for cutting holes in walls to gain access into a structure.
  - **Saws-All** - A battery operated reciprocating saw. Used for cutting holes in walls, ventilation and debris removal.
  - **Lighting, Cord and Reel and Adapters** - An electric light source and an electric extension cord. These are usually only stored on the GFD structure engines and mainly used to light the interior, or exterior, of a structure or other section of the fire scene.
  
- **Knows how to setup and run the Air Van at a fire scene.**
  - Air Van doubles as the rehabilitation area.
  - Air Cascade and Cylinder Filling
    - Parts:
 

**NOTE:** Juniors must be able to name, identify and give the purpose of each of the following parts of the Air Cascade System.

      - 6 Air Supply Cylinders - Must also know how much PSI each cylinder must hold to be considered full
      - 6 Air Supply Cylinder shutoff valves
      - 6 Bank PSI Gauges and Knobs - ONLY HAVE ONE OPEN AT A TIME!!!
      - PSI Regulator - Set to the maximum PSI that you want the bottle your filling to be filled to.
      - 2 Fill PSI Gauges and Knobs - When hooked to the bottle and the bottle is turned on it will show what PSI is in the bottle your filling.
      - 2 Fill Hose Lines
      - Pressure Release Valve - Used to release air pressure that builds up in the fill hose during filling of a SCBA bottle. This valve should be opened to release the pressure AFTER the valve on the SCBA bottle and the fill valve on the cascade system are closed. Releasing the pressure on the fill hose makes it much easier to disconnect the fill hose from the bottle you just filled.
      - White Plastic Washer on fill hose - Gives a good air seal between the bottle and the fill hose of the cascade system. The cascade system is completely drained of air pressure

after each use. While draining the system it is important to make sure that this washer is not blown off or lost.

- SCBA Bottle Holding Area - Use to help contain a blast if a SCBA bottle ever explodes. Notice that it says "Helps." If an SCBA bottle does explode don't expect this device to completely contain the blast.

- **Knows how to setup and run the rehabilitation area at a fire scene**

- The rehabilitation area is where firefighters come at rest and drink water after fighting fire.
- Cones
- Tarp
- Chairs
- Lots of Bottled Water
- **MAKE SURE THAT ALL** firefighters that come out of a structure sit down and drink **AT LEAST 1** full bottle of water. Firefighters will try and get around doing this so that they can go back into the fire. Make sure they don't leave the rehabilitation area for 10 minutes **AND** drink at least 1 full bottle of water.