show configuration interface <interface name>
show configuration interfaces | display set | match ge-0/0/0
set interfaces ge-0/0/47 description Future_Uplink1G
show interface descriptions
show interfaces descriptions | match 1/2/3 (switch 1, module 2, port 3 This is the WAN)
show lldp neighbors
show lldp neighbors | match 0/0
set protocols ospf area 0.0.0.0 interface ge-1/0/0.0
show | compare - show what a commit will do
set interfaces ge-0/0/1.0 disable << This is cisco equivalent of “shutdown”
delete interfaces ge-0/0/1.0 disable << This is cisco equivalent of “no shutdown”

Monitoring System Interfaces
show interfaces diagnostics optics ge-0/0/0
monitor interface traffic (shows all interfaces live statistics)
show interface <interface-name> (shows real time stats)

Request commands USE WITH CAUTION
request system halt at now - do this before pulling power
request system power-off at now
request system software add junos-package-name.tgz
request chassis routing-engine master switch
request chassis fpc slot x restart/offline/online
request system configuration rescue save
(take a copy of current active config and save as a rescue file)
request system configuration delete - Delete the rescue configuration

Rollback files
/config/ for first 3
/var/config/ for 4-49
rollback 1 [enter] takes a copy of rollback 1 and copies it to the candidate.
Commit overwrites the running.

Editing Configuration
edit <enter>
[edit]
user@host#
edit interface ge-1/0/3
[edit interface ge-1/0/3]
set ...
del ...
top (move back to the top level of configure mode)

Copy Configuration
Copy an L3 interface, then change the ip
edit <enter>
copy ge-0/0/2 to ge-0/0/3
edit interface ge-0/0/3
replace pattern 0.101 with 200.102

Move the DENY TELNET term above the ACCEPT ALL term
insert term DENY TELNET before term ACCEPT ALL ELSE

Miscellaneous
help topic routing-options
help reference routing-options static
monitor start messages (terminal monitor)
monitor stop (term no monitor)
set cli screen-length 0 (disable paging)

Annotate
[edit protocols ospf area 0.0.0.0]
deactivate interface ge-0/0/0.0
annotate interface ge-0/0/0 "Phill took down"

TCPDUMP
show traffic interface ge-0/0/0.0 no-resolve 1518 (tcpdump)
show traffic interface ge-0/0/0.0 no-resolve 1518 detail
show traffic interface ge-0/0/0.0 no-resolve 1518 write-file MYCAP.PCAP
Saves the file in /var/home/<username>
scp it off the box and open in wireshark.

Monitoring System
show system core-dumps
show system alarms
show system boot-messages
show system license
show system storage
show system uptime
show system process extensive

show chassis alarms
show chassis environment
show chassis hardware
show chassis fpc (shows all line cards)
show chassis cluster
show chassis routing-engine
(for the routing engines, overall proc and memory)

Examples
show interfaces terse ge-0/0/0
```
Interface               Admin Link Proto    Local
ge-0/0/0                up    up
ge-0/0/0.0              up    up   eth-switch
```

show configuration interfaces ge-0/0/22
```
description "Authorised OSPF to GE3 vni-0/4 Versa 01";
unit 0 {
    family ethernet-switching {
        interface-mode trunk;
        vlan {
            members [ 1-2 201 300 303-304 310 ];
        }
    }
}
```

show ospf neighbor
```
Address          Interface     State     ID
10.128.0.10      irb.2         Full      10.128.0.10
10.128.0.9       irb.2         Full      10.128.0.9
```

show interfaces brief ge-0/0/0
```
Physical interface: ge-0/0/0, Enabled, Physical link is Up
  Link-level type: Ethernet, MTU: 1514, LAN-PHY mode, Speed: Auto,
  Loopback: Disabled, Source filtering: Disabled, Flow control: Disabled,
  Auto-negotiation: Enabled, Remote fault: Online, Media type: Copper,
  IEEE 802.3az Energy Efficient Ethernet: Disabled, Auto-MDIX: Enabled
  Device flags   : Present Running
  Interface flags: SNMP-Traps Internal: 0x4000
  Link flags     : None

  Logical interface ge-0/0/0.0
    Flags: Up SNMP-Traps 0x24024000 Encapsulation: Ethernet-Bridge
    eth-switch
```

Ping/Traceroute
ping 100.100.100.1
ping 100.100.100.1 rapid
ping 100.100.100.1 rapid count 100
ping 100.100.100.1 source 10.10.10.1
ping 100.100.100.1 do-not-fragment size 1400
ping 100.100.100.1 routing-instance VRF1
traceroute 10.10.0.1
traceroute 10.10.0.1 as-number-lookup
traceroute monitor 200.200.200.1 (mtr)

Show Routing details
show ospf nei
show route
Show ospf database
show ospf interface
show route protocol ospf
show route summary
show interface terse routing-instance <instance-name>
show route table <instance name>
show routing options

Ethernet
show interfaces brief <interface name>
show interfaces terse <interface name>
show interfaces detail <interface name>
show interfaces extensive <interface name>
show ethernet-switching interfaces
clear interface statistics <inrface name>

Commit Tricks
Commit overwrites the running configuration
commit check - Will show any errors that would occur.
commit confirm 5 (commit, rollback 5 minutes unless confirmed type commit)
commit comment "phill changed something"
commit at <time>
show system commits - list of rollback files and dates
clear system commit (delete a commit at)
rollback 0 - exit without making any changes

clear arp
show arp
show ethernet-switching table

CLI Modes
root user must type "cli" to get to the command line
> means you are in operational mode. Like enable mode on Cisco
configure - Create a candidate configuration. Commit it to make it active.
configure private - best practice each user has his own candidate file.
configure exclusive
Create the candidate but with an exclusive lock so no other user can change.

Show Firewall Filters
show configuration firewall family inet filter PROTECT-RE | display set
show configuration | find firewall
set firewall family inet filter PROTECT-RE term dhcp-client-accept from source-address 0
set firewall family inet filter PROTECT-RE term dhcp-client-accept from destination-addre
set firewall family inet filter PROTECT-RE term dhcp-client-accept from protocol udp

Shut / no shut an interface
set interfaces ge-0/0/1.0 disable << This is cisco equivalent of “shutdown”
delete interfaces ge-0/0/1.0 disable << This is cisco equivalent of “no shutdown”

show configuration protocols ospf
```
area 0.0.0.0 {
    interface ge-0/0/0.0 {
        interface-type p2p;
        hello-interval 3;
        dead-interval 12;
        authentication {
            md5 1 key "$9$dRb4aJGiHkm4anCtpOBEcyl8xbs2"; ## SECRET-DATA
        }
    }
    interface ge-1/0/0.0 {
        interface-type p2p;
        hello-interval 3;
        dead-interval 12;
        authentication {
            md5 1 key "$9$S17rWLX7Vbw2WLDk.m5T369ABRrev"; ## SECRET-DATA
        }
    }
```

show interfaces descriptions | match 2/3
ge-0/2/3 up up TELCO 1 | VENDOR | SPEED | HANDOFF-INTERNET | CKTID:
ge-1/2/3 up up TELCO 2 | VENDOR | SPEED | HANDOFF-INTERNET | CKTID:

Upgrade Firmware
Log into your Juniper switch as root
DO NOT PLUG THE USB IN YET)
ls /dev/da*
Plug the USB stick into the Juniper switch
ls /dev/da*
the additional folder is the name of your USB stick
mkdir /var/tmp/usb
mount_msdosfs /dev/da1s1 /var/tmp/usb
NOTE: Change DA1S1 to the name of your USB stick
cp /var/tmp/usb/junos* /var/tmp
If and only if you have a Juniper EX2300 or EX3400 also copy the other two files:
cp /var/tmp/usb/os* /var/tmp
cp /var/tmp/usb/pack* /var/tmp
request system storage cleanup
request system snapshot delete snap*
request system software add /var/tmp/os-package.tgz
request system software add /var/tmp/package-hooks-ex.tgz
request system software add /var/tmp/junos-arm-32-21.1R1.11.tgz reboot force unlink no-
NOTE: Change the name of the firmware file to match what you downloaded
Reboot by typing request system reboot and press ENTER
Wait for the reboot to complete and then have a great day.

https://www.youtube.com/watch?v=QnTPpN3kOKI
https://www.youtube.com/watch?v=zridsKI67TA (USB Boot)