S(config-if)#switchport mode dynamic auto

Default on a lot of Cisco switches but is changing to *dynamic desirable* on most new switches.

S(config-if) #switchport mode dynamic desirable

Makes the interface actively attempt to convert the link to a trunk link.

S(config-if) #switchport mode trunk

Puts the interface into permanent trunking mode and negotiates to convert the neighboring link into a trunk link. The interface becomes a trunk interface even if the neighboring interface is in access mode.

S(config-if)#switchport nonegotiate

Prevents the interface from generating DTP (Dynamic Trunk Protocol, the protocol that negotiates trunking modes) frames. Interface must first be set to either *trunk* or *access*.

access + dynamic auto = access

access + dynamic desirable = access

access + trunk = traffic in the native VLAN will cross the link successfully but other VLAN's traffic will not

dynamic auto + dynamic auto = access

dynamic auto + dynamic desirable = trunk

dynamic auto + trunk = trunk