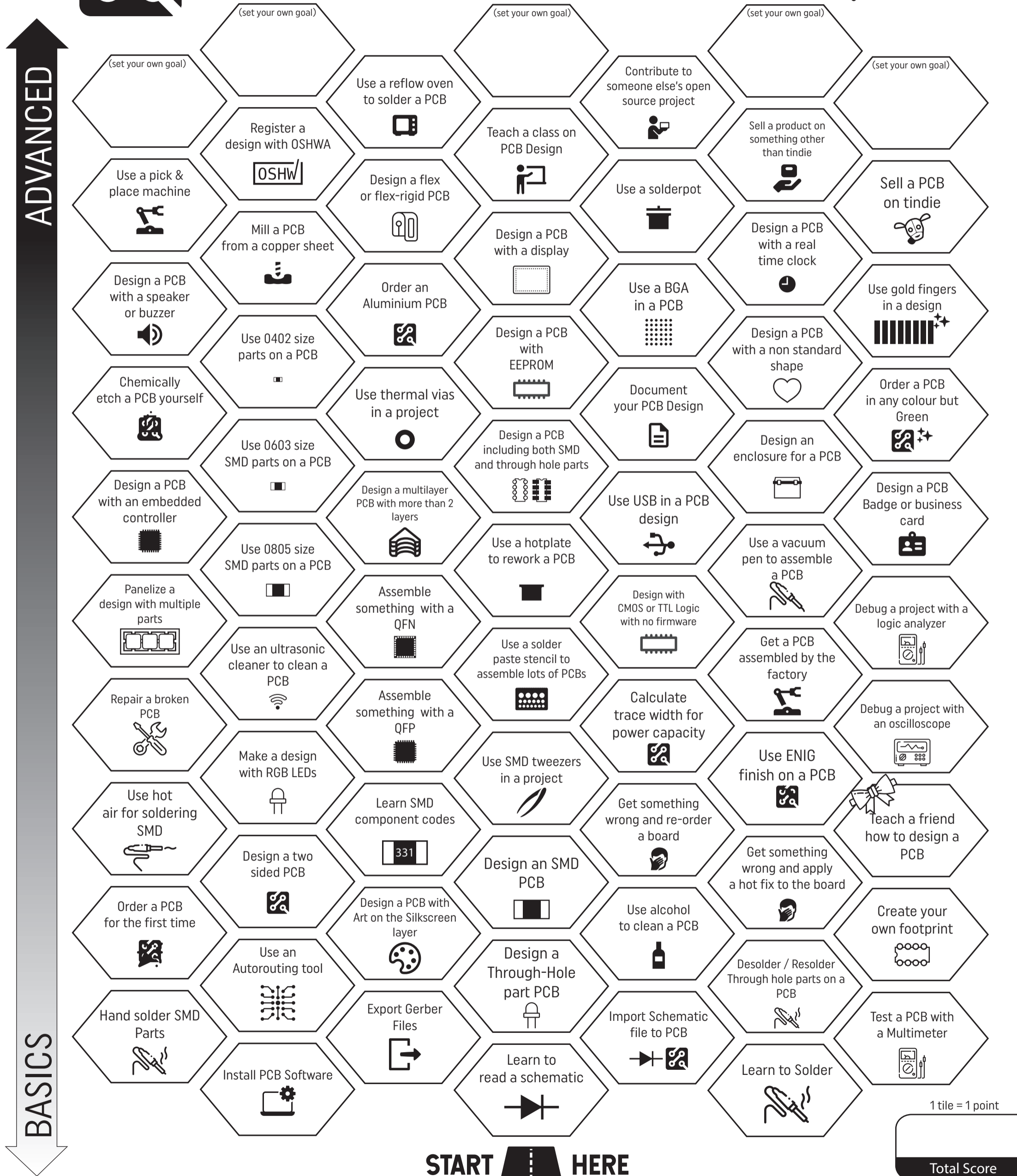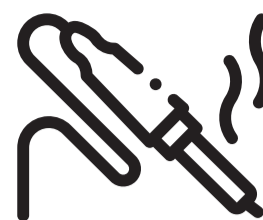# PCB DESIGN

Skill Tree: Color in the boxes and level up your skills

Use for individuals or as a group by picking a colour each and coloring in a part of the box. Everyone's journey is different and you can interpret the goals flexibly. The aim is to inspire you to learn and try new things. Not everything needs to be completed.

ADVANCED

BASICS

- (set your own goal)
- (set your own goal)
- (set your own goal)
- (set your own goal)
- (set your own goal)
- (set your own goal)

- Use a reflow oven to solder a PCB
- Contribute to someone else's open source project
- Register a design with OSHWA — OSHW
- Teach a class on PCB Design
- Sell a product on something other than tindie
- Use a pick & place machine
- Design a flex or flex-rigid PCB
- Use a solderpot
- Sell a PCB on tindie
- Mill a PCB from a copper sheet
- Design a PCB with a display
- Design a PCB with a real time clock
- Design a PCB with a speaker or buzzer
- Order an Aluminium PCB
- Use a BGA in a PCB
- Design a PCB with a non standard shape
- Use gold fingers in a design
- Use 0402 size parts on a PCB
- Design a PCB with EEPROM
- Document your PCB Design
- Order a PCB in any colour but Green
- Chemically etch a PCB yourself
- Use thermal vias in a project
- Design a PCB including both SMD and through hole parts
- Design an enclosure for a PCB
- Use 0603 size SMD parts on a PCB
- Design a PCB Badge or business card
- Design a PCB with an embedded controller
- Design a multilayer PCB with more than 2 layers
- Use USB in a PCB design
- Use a vacuum pen to assemble a PCB
- Use 0805 size SMD parts on a PCB
- Use a hotplate to rework a PCB
- Design with CMOS or TTL Logic with no firmware
- Debug a project with a logic analyzer
- Panelize a design with multiple parts
- Assemble something with a QFN
- Get a PCB assembled by the factory
- Use an ultrasonic cleaner to clean a PCB
- Use a solder paste stencil to assemble lots of PCBs
- Debug a project with an oscilloscope
- Repair a broken PCB
- Assemble something with a QFP
- Calculate trace width for power capacity
- Make a design with RGB LEDs
- Use SMD tweezers in a project
- Use ENIG finish on a PCB
- Use hot air for soldering SMD
- Learn SMD component codes — 331
- Get something wrong and re-order a board
- Teach a friend how to design a PCB
- Design a two sided PCB
- Design an SMD PCB
- Get something wrong and apply a hot fix to the board
- Order a PCB for the first time
- Design a PCB with Art on the Silkscreen layer
- Use alcohol to clean a PCB
- Create your own footprint
- Use an Autorouting tool
- Design a Through-Hole part PCB
- Desolder / Resolder Through hole parts on a PCB
- Hand solder SMD Parts
- Export Gerber Files
- Import Schematic file to PCB
- Test a PCB with a Multimeter
- Install PCB Software
- Learn to read a schematic
- Learn to Solder

START | HERE

1 tile = 1 point

Total Score

Name: _____