

## KIDS STEAM SKILLS

## Skill Tree: Color in the Boxes

Color in the boxes of anything you've already completed, visualize your skills and identify your skill gaps. Get inspired to try new things and tailor the skill tree to suit your own journey by swapping in your own goals.



(set your own goal)

Do a wearable

tech project

Use a sensor in

an Arduino project

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Use a green

screen in a video

ightharpoonup

Hand sew on a

button

Make something

special for a friend

Record & edit

a video

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Complete an

obstacle course with a

robot eg. sphero / **LEGO Mindstorms** 

Make something

that moves with

LEG0

Learn to use

a box cutter safely

Create something to address one of the Sustainable Development

(set your own goal)

Design and 3D

print something

with electronics

Make a line

following robot

Create a flip

book

Control multiple

LEDs with Arduino or

Microbit

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Blink an LED

with Arduino or

Microbit

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Learn to use

wire strippers

Get a circuit

wrong and try again

Make a circuit

with a motor

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Make something

with layers of paper

Learn to score

card with a ruler

Goals

Create a model in an

engineering software eg. Fusion 360, OnShape,

Solidworks or others

Use a laser

cutter

Control a servo

motor with Arduino or Microbit

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Make a circuit that

includes a button or

switch

Make something

out of timber

Make a model

from a sketch in

TinkerCAD

T I N K E R C A D

Learn the difference

between parallel and

in-series circuits

a breadboard

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Make a 3D object

from a net

Design, print and assemble something with multiple parts

(set your own goal)

Make a robotics project

Learn how to hand embroider or cross stitch

Use a vinyl cutter

for a project

eg. Cricut, Brother Silhouette

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Learn different

types of hand stitching

Craft a car with

wheels that move

Fix something

that's broken

Take apart some

e-waste and see

what's inside

3D print a model

from Thingiverse or

**Printables** 

Learn to edit

a photo

Learn to

use cutting tools

safely

**%** 

Make something using a sewing machine

Enter a STEM or

Robotics competition

eg. Robocup

Design and 3D

print something

Make an automata of your own design

Learn to use

a soldering iron

Learn to plot

data on a graph

Make something

with origami

Make something

from upcycled materials دی

Make a circuit that lights up an LED

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(set your own goal)

Teach a friend

a STEAM skill

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Learn a vector artwork software, eg. Illustrator, Affinity or

(set your own goal)

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Make a project with a Raspberry Pi

> Contribute to a big project

Create an animation or stop motion video

> ~~~° Measure voltage with a multimeter

Learn how to knit, crochet or weave

> Control an Arduino or Microbit with Scratch

Make something

to fix a problem

Make a pop-up

card Prototype

something in cardboard

Make a simple

game in Scratch Simulate

code in TinkerCAD T I N K E R C A D

Do an activity in Scratch Jr. Use folding

and cutting to make a paper snowflake

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Navigate a Beebot around at least 4

objects 

Use a mitre box

to cut timber to size

with popsicle sticks **(4)** 

Make a kite

that flies

Make something

1 tile = 1 point

**Total Score** 



**HERE** 

**START** 

Name: .

