A SPARKATLAS PACK FOR LITTLE EXPLORERS

# Colour Mixing Lab

Three paints, one walk and a lot of wondering: mix colours, hunt for them outside and name your own.



## INSIDE THIS PACK


02 Grown-up guide: a one-minute read
03 Three colours make many
04 What colour is it outside?
05 Colour by dot
06 How many greens?
07 Name a new colour


## YOU WILL NEED

- Washable paint: red, yellow, blue and white
- A brush, a jar of water and a plate to mix on
- Crayons, and tape for the colour hunt

## TIME

10 to 20 minutes a page. The hunt fits any walk.

## Our colour lab

Date _____ We mixed at _____

Weather · Circle one

○ sunny ○ cloudy ○ rainy ○ windy

AGES Sprout 2–3 Seedling 3–5 Sapling 5–7

Every page has an easier and a stretch idea.

## WHY THIS MATTERS

Mixing colours is a first taste of science: guess, test, compare and tell. Every page starts with real paint or a real walk and ends in your child's own words.

# Before You Start

A one-minute read for grown-ups.

## How to use it (one page a day is plenty)

1. **Set up a small lab.**
A plate or ice-cube tray, a jar of water, a brush, and red, yellow, blue and white paint.

2. **Guess first.**
Before each mix, ask "What do you think will happen?" Every answer is a good start.

3. **Mix a little at a time.**
Small dabs keep colours bright. Rinse the brush between colours.

4. **Take it outside.**
Pages 4 and 6 go on a walk. Look at colours in daylight, then talk about them.

## Three ways to play

### Sprout 2–3

Squish paint in a sealed bag, colour the big parts, and point to and name colours outside.

### Seedling 3–5

Guess, mix and compare. Hunt for colours and layer two crayons on the dot page.

### Sapling 5–7

Record guesses, build a light-to-dark ladder, then invent and write colour names.

### Little safety notes

Use washable paint made for children, and keep the paint water well away from drinking cups. Paint is for brushes, never mouths. On the hunt, look, don't pick: tape in only things that have already fallen. Wash hands after.

### Printing tips

Page 1 is the cover. To save ink, print pages 2 to 7 only. Every page works in black and white, because the colour marks are shapes too. Letter or A4.

## Wonder out loud together

- What colour do you think these two will make?
- Can you find a colour that has no name?
- Why do you think the sky looks blue?
- Which colour is hardest to find outside?

FOR GROWN-UPS

If purple turns brown, try a pinker red, such as magenta, and use a little less of it. A muddy colour is a result, not a mistake: ask what made it.

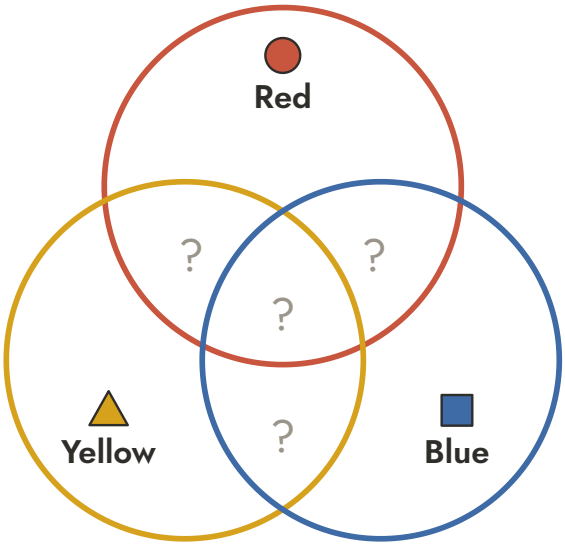
# Three Colours Make Many

Red, yellow and blue: what happens when two of them meet?

Colour the circles with crayons. Then test real paint on the right.

## Crayon mixing

Colour each circle. Where two circles overlap, colour with both crayons.




## Paint test

Guess first. Then mix a little of each and dab it in the last circle.

| | I think | It made |
|---|---|---|
| Red + Yellow = | | |
| Yellow + Blue = | | |
| Blue + Red = | | |

## A painter's three

Red, yellow and blue are a painter's starting colours. Mix all three together and you get a muddy brown.

## Light is different

Screens mix red, green and blue light. Red and green light together make yellow, and all three make white.

### FOR GROWN-UPS

Guessing before mixing is the heart of an experiment: your child predicts, tests and compares. A wrong guess teaches just as much as a right one.

### PLAY IT YOUR WAY

**Easier:** Seal two blobs of paint in a zip bag and let your child squish them together: no brush, no mess.
**Stretch:** Add a dab of white to each mix. What changes? Then try more yellow than red.

# What Colour Is It Outside?

Take this page on a walk. How many colours can you find?

Colour a small circle each time you spot one. Draw it, or tape in something that has already fallen.

### Red

a leaf, a berry, a door

How many? ○ ○ ○ ○ ○

### Orange

a leaf, lichen, a sign

How many? ○ ○ ○ ○ ○

### Yellow

a leaf, a flower, a car

How many? ○ ○ ○ ○ ○

### Green

moss, grass, a pine

How many? ○ ○ ○ ○ ○

### Blue

the sky, a bird, a coat

How many? ○ ○ ○ ○ ○

### Purple

a flower, a bike, a mitten

How many? ○ ○ ○ ○ ○

### Brown

bark, soil, an acorn

How many? ○ ○ ○ ○ ○

### White or grey

a cloud, a stone, frost

How many? ○ ○ ○ ○ ○

### No name yet

a colour you can't name

**I call it** _____

## Blue is rare

**Very few plants and animals make blue colouring. A blue jay's feather has no blue in it at all: its tiny structure scatters light, so it looks blue.**

## Talk about it

- Which colour was easiest to find?
- Which colour did you find only once?
- Was anything two colours at once?

### FOR GROWN-UPS

Hunting for colours trains careful looking, and naming them builds describing words. Many children are surprised by how much brown, grey and green there is, and how rare blue is.

### PLAY IT YOUR WAY

**Easier:** Hunt for just one colour on a walk, pointing and naming it together.
**Stretch:** Write what you found under each colour, then count which colour won.

# Colour by Dot

A garden picture where the marks tell you which crayons to use.

Find a mark, pick that crayon and colour the part. Then add your own sky!

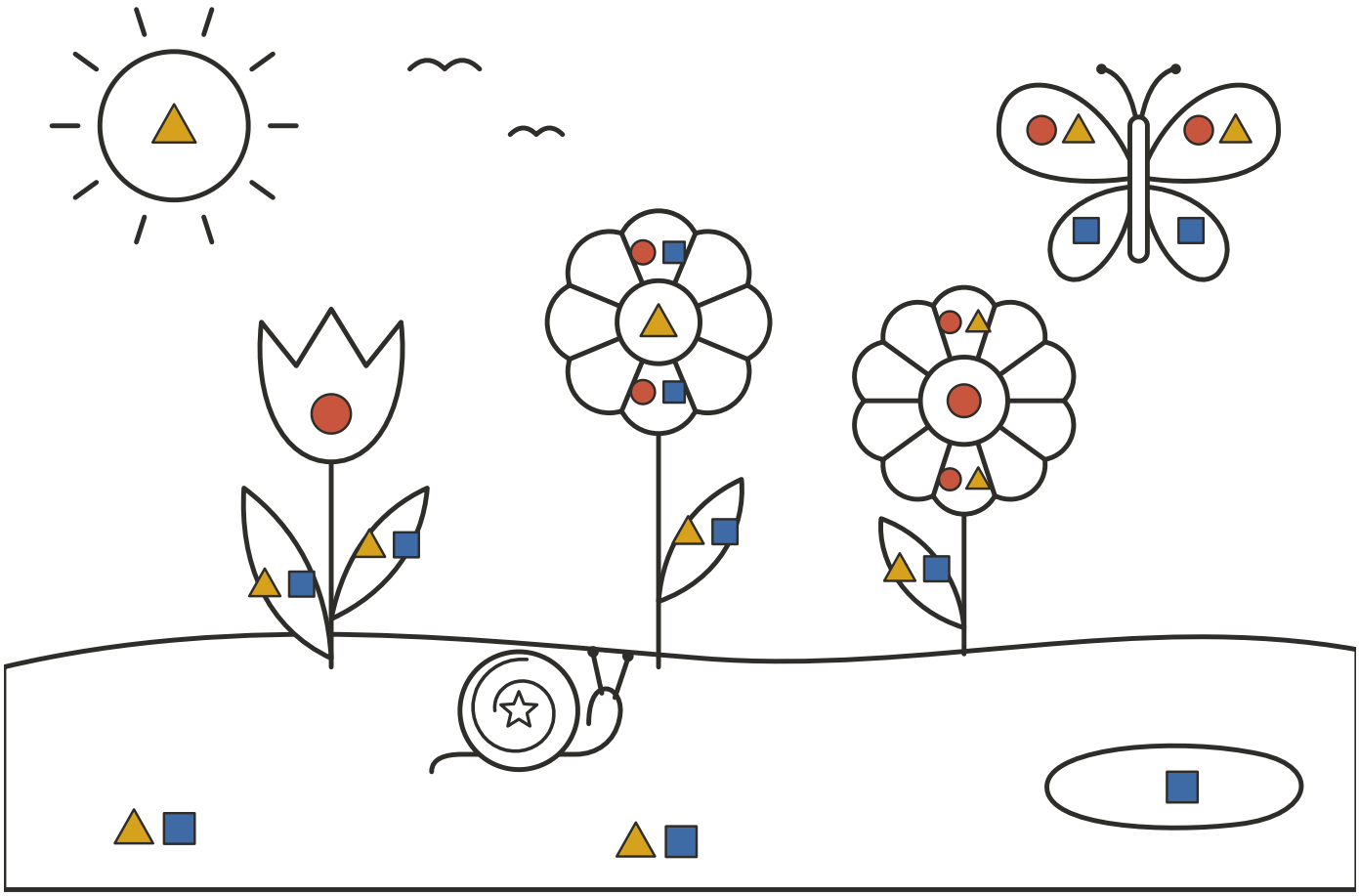
**One mark: one crayon**

Red · Yellow · Blue

**Two marks: colour one, then the other on top**

● + ▲ = Orange · ▲ + ■ = Green

● + ■ = Purple · ☆ = your choice



## FOR GROWN-UPS

Layering one crayon over another is real colour mixing with no paint at all. Matching marks to colours also practises reading a key, an early map and maths skill.

## PLAY IT YOUR WAY

**Easier:** Colour the big parts with one crayon each and skip the double marks.

**Stretch:** Colour lightly with yellow first, then red on top. Does the order change the colour?

# How Many Greens?

Make a ladder from light to dark, then find leaves to match.

**Fill the ladder from 1 (lightest) to 5 (darkest). Then go outside and find something for each step.**

## My green ladder

| | Paint or crayon | Find a match |
|---|---|---|
| 1 | lightest | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | darkest | |

## Two ways to make it

1. Paint: start with white, add a tiny dot of green and paint box 1.
2. Add one more dot of green for each box. Box 5 is just green.
3. Crayon: press very softly for box 1, then a little harder each time.

## Try another colour

My colour _____

## Where autumn colours hide

Leaves are green because of chlorophyll. In autumn it fades, so the yellows and oranges that were there all along show through. Most reds are made new in autumn.

### FOR GROWN-UPS

Putting shades in order from light to dark is sorting by one quality, a key early maths and science skill. Matching real leaves turns it into a close-looking game.

### PLAY IT YOUR WAY

**Easier:** Use three boxes only: light, middle, dark. Your child picks leaves and you sort them together.

**Stretch:** Turn a leaf over: is the back the same green? Then line up five leaves from light to dark.

# Name a New Colour

Mix a colour nobody has seen before, then give it a name.

**Mix two or three paints, paint the big box and name your colour.**

COLOUR 1

Paint your colour here

**It is called**

**I mixed**

☐ ● ☐ ▲ ☐ ■ ☐ white

**It looks like**

COLOUR 2

Paint your colour here

**It is called**

**I mixed**

☐ ● ☐ ▲ ☐ ■ ☐ white

**It looks like**

COLOUR 3

Paint your colour here

**It is called**

**I mixed**

☐ ● ☐ ▲ ☐ ■ ☐ white

**It looks like**

## Colour words to play with

- Which colour feels warm, like the sun?
- Which colour feels cool, like water?
- What colour would a quiet day be?

### FOR GROWN-UPS

Paint makers invent names like Moss or Morning Mist. When your child names a colour, they link it to things they know, which builds vocabulary and memory.

### PLAY IT YOUR WAY

**Easier:** Mix one colour with white, and write down the name your child says.

**Stretch:** Write the name yourself and tick what you mixed, so you can make it again.