How to Design Scientific Posters?

A good scientific poster makes knowledge accessible. For this, we need visual clarity in the design.

Our advice on scientific poster design will therefore focus on achieving visual clarity.

ADJUST ALL ASPECTS

Communication only works as a whole.

Communication only works as a whole.

All aspects need to fit and support each other.
No single aspect is more important than another.

A good manuscript will never outweigh a lack of visual clarity.

Good Manuscript

Some really nicely written bla bla bla

If the manuscript is good, keep it. Focus on improving the design.

Good Manuscript

Some really nicely written bla bla bla

Visual clarity will never outweigh a bad manuscript.

Bad Manuscript

Some really terribly written blaaaaaaaa bla blllalallalalla bla

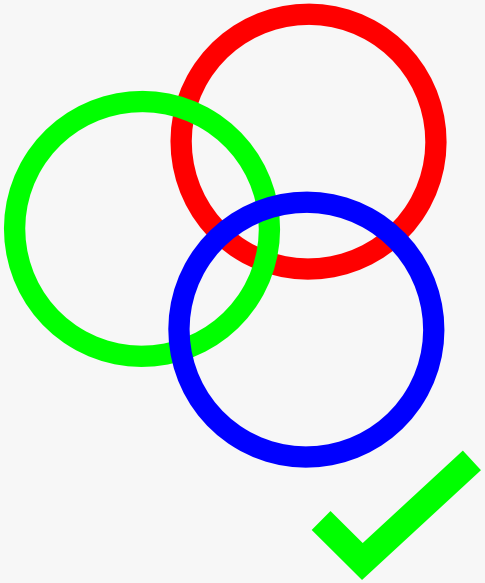
bla blablablabla blaaaaallalalal blabla

bla blaaaaa bla bbbbblal blabla.

Bla blaaaaaaaa bla blllalallalalla bla bla blablablabla blaaaaallalalal blabla bla blaaaaa bla lalal bla bla blablablabla blabla blaaaaallal blabla bla blaaaaa bla bbbbblal blabla blaaabla b b b blaaaaa bla blabl.

Bla blaaaaaaaa bla blllalallalalla bla bla blablablabla blaaaaallabla blaaaaa bla bbbbblal blabla lalal bla bla blaaaaallal blabla bla blaaaaa bla bbbbblal blabla blaaabla b b b blaaaaa bla blabl.

+



Visual Clarity

=

If the design is clear, keep it.
Focus on improving the manuscript.

Bad Manuscript

Some really terribly written blaaaaaaaa bla blllalallalalla bla

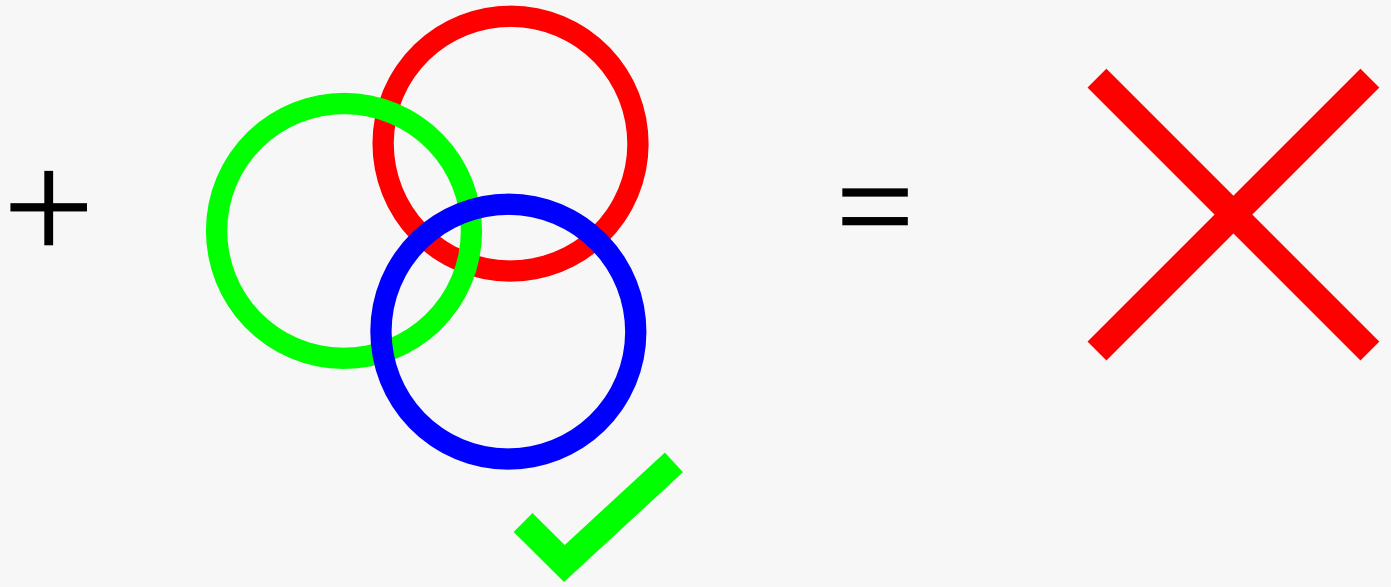
bla blablablabla blaaaaallalalal blabla

bla blaaaaa bla bbbbblal blabla.

Bla blaaaaaaaa bla blllalallalalla bla bla blablablabla blaaaaallalalal blabla bla blaaaaa bla lalal bla bla blablablabla blabla blaaaaallal blabla bla blaaaaa bla bbbbblal blabla blaaabla b b b blaaaaa bla blabl.

Bla blaaaaaaaa bla blllalallalalla bla bla blablablabla blaaaaallabla blaaaaa bla bbbbblal blabla lalal bla bla blaaaaallal blabla bla blaaaaa bla bbbbblal blabla blaaabla b b b blaaaaa bla blabl.

Visual Clarity



Adjust & Improve

Keep

A good manuscript is optimised for the medium. For a poster, it has to be concise.

Poster

Only the most important bla bla bla

Communication only works if all aspects are on point.

Good Manuscript

Some really nicely written bla bla bla

MIND THE VISUAL HIERARCHY

The visual hierarchy should reflect the hierarchy of the content.

Three elements of descending importance should have three levels of descending visual impact. Example: Size

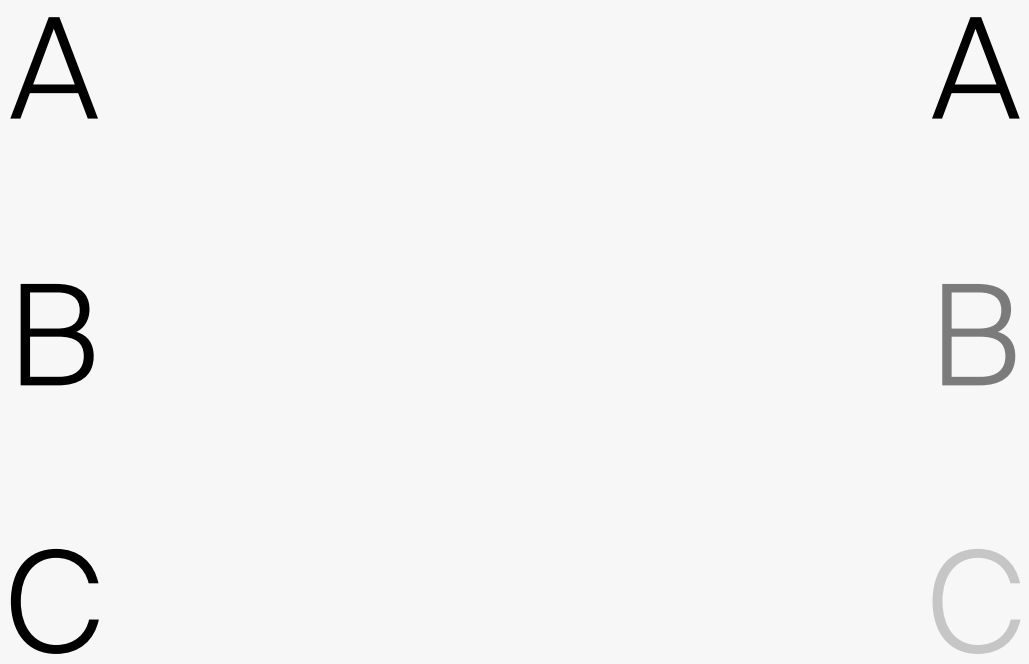
Example: Font-Weight

A **A**

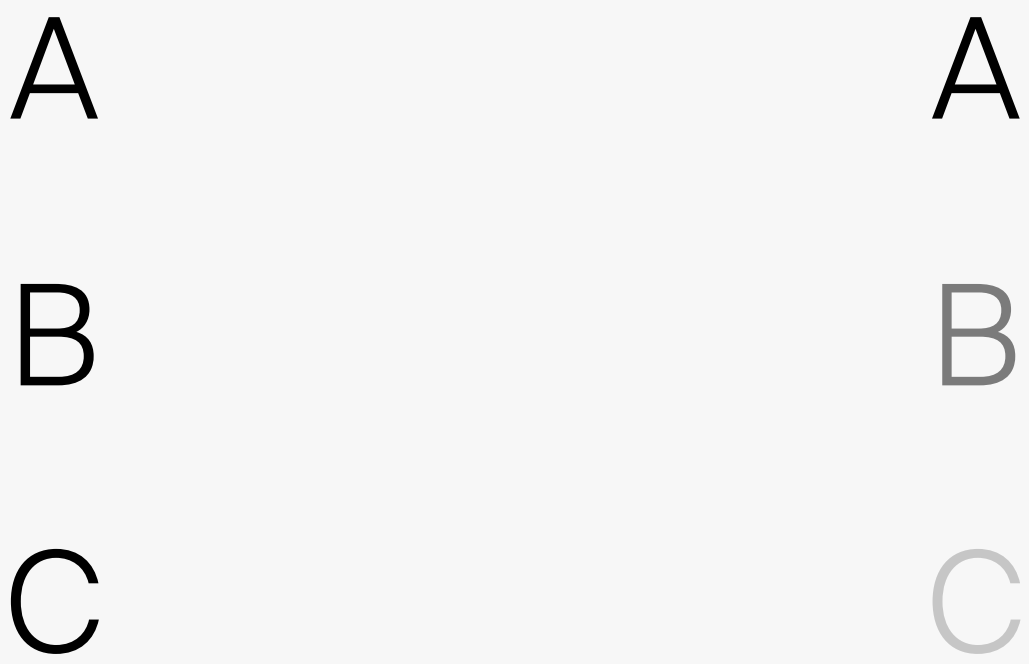
B **B**

C C

Example: Shades of Grey



Try to adjust only one visual parameter to create different levels of visual impact.



Do not mix different visual parameters.

A **A**

B *B*

C C

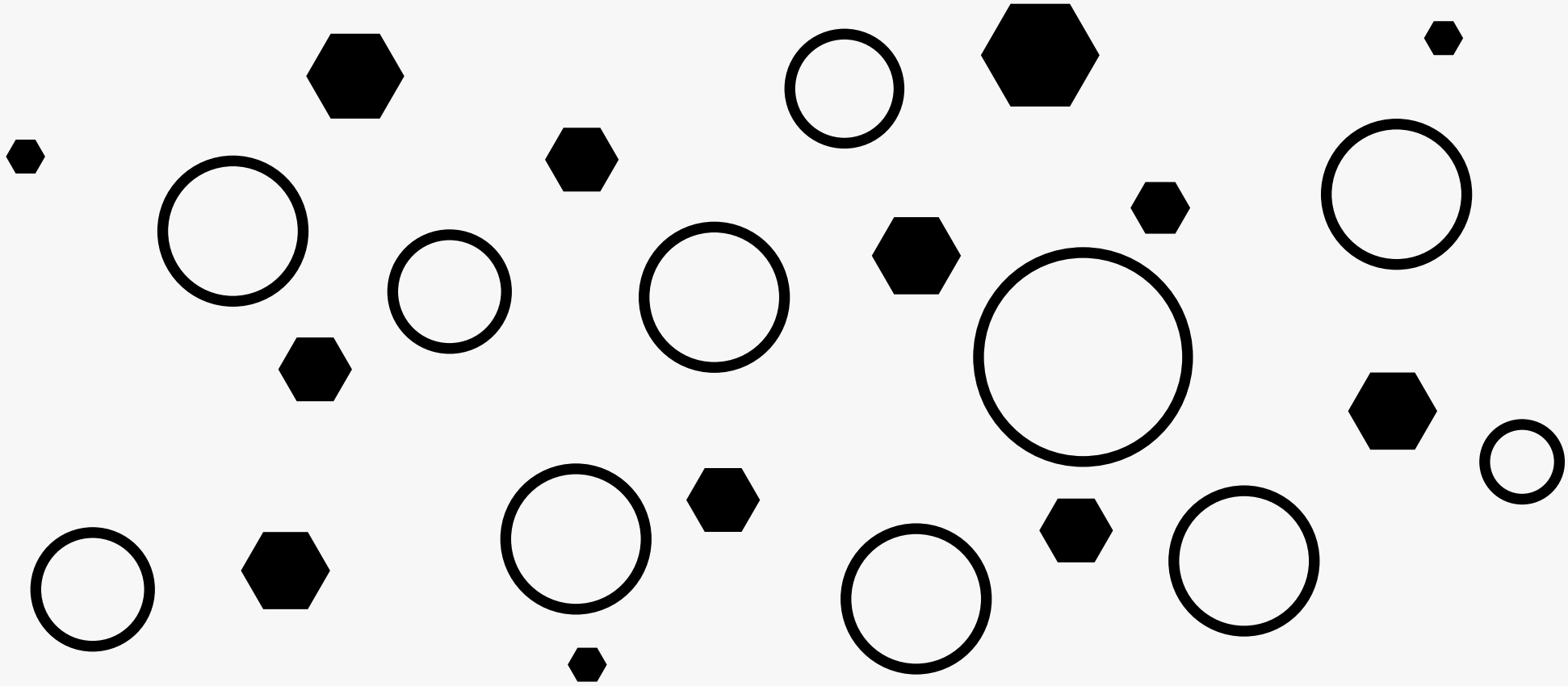
KEEP IT VISUALLY CONSISTENT

A scientific poster usually focuses on one single topic, hence it should also use one single visual language.

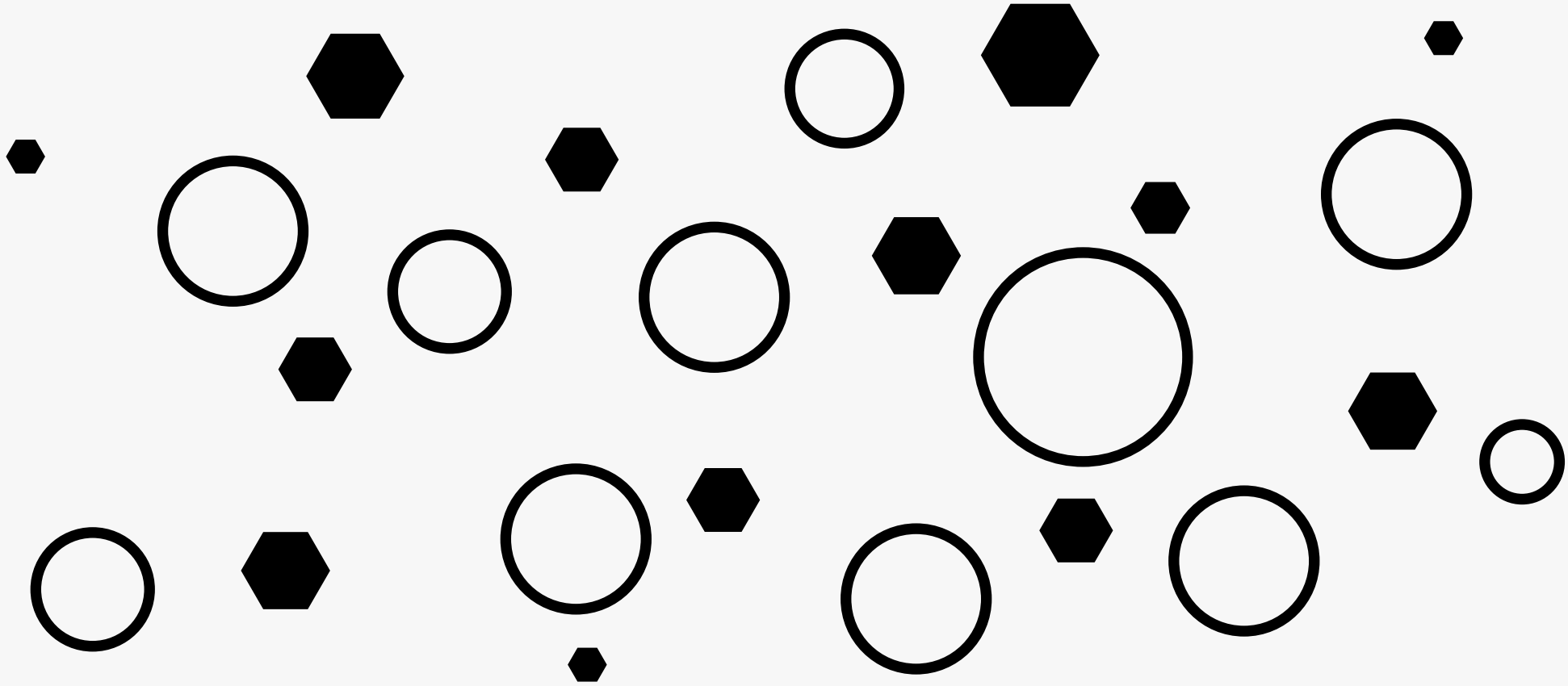
Law of Similarity (Gestalt Psychology):

Elements that share one single visual language are perceived as belonging together.

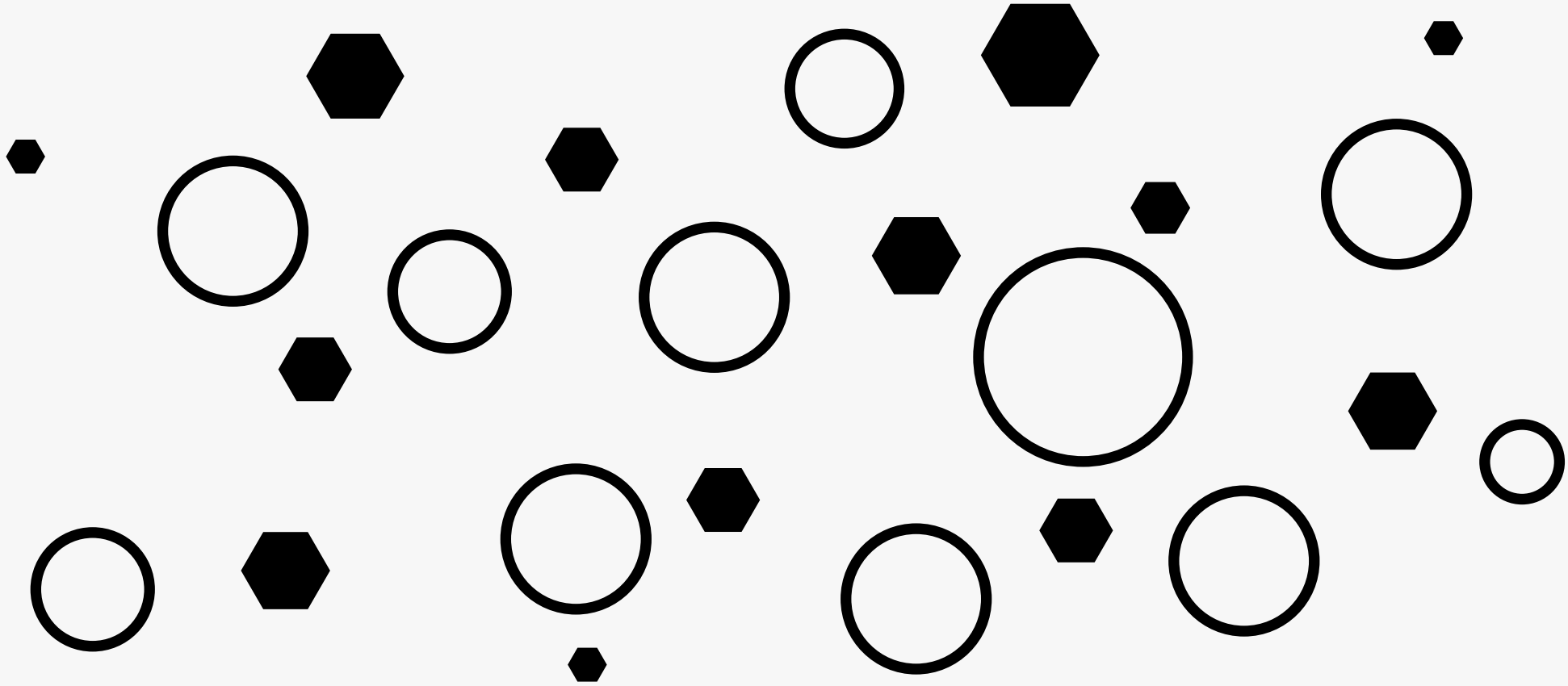
Example:



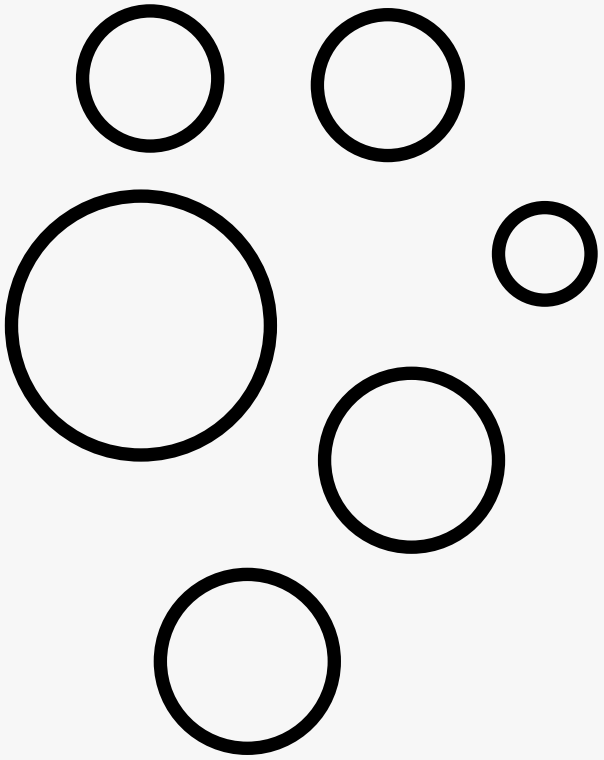
Inuitively, we distinguish two groups of elements: Outlined circles and filled hexagons.



We would not inuitively distinguish a left, middle, and right group of elements, for example.

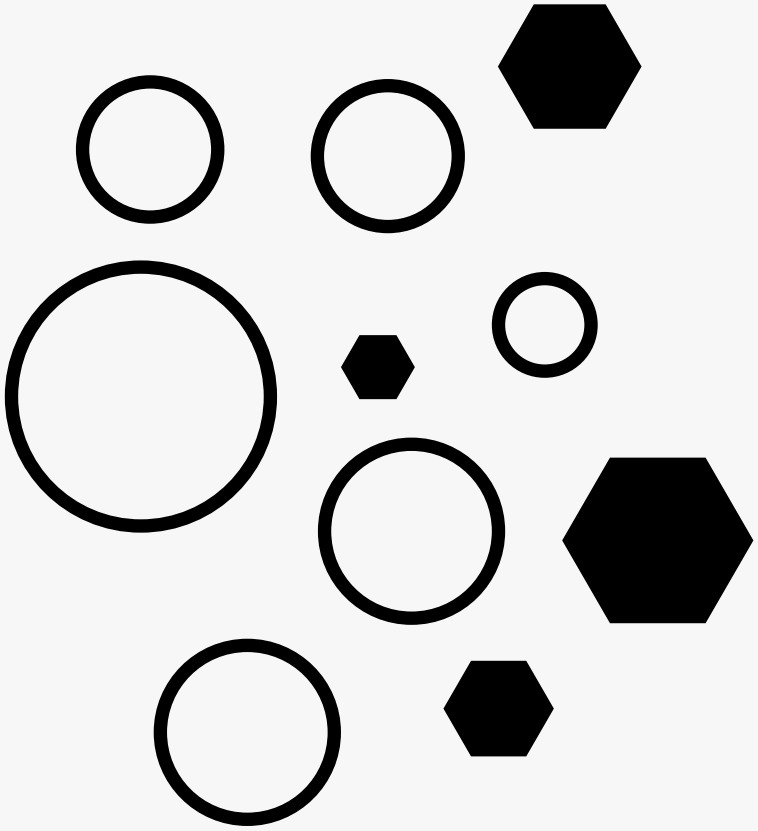


If all elements share the same visual language (look similar), the design signals that all elements are about the same topic.



→ **one topic**

If some elements do not look visually consistent, it signals that there are multiple topics presented.



→ **multiple topics**

Visual inconsistency signals a multiplicity of topics.

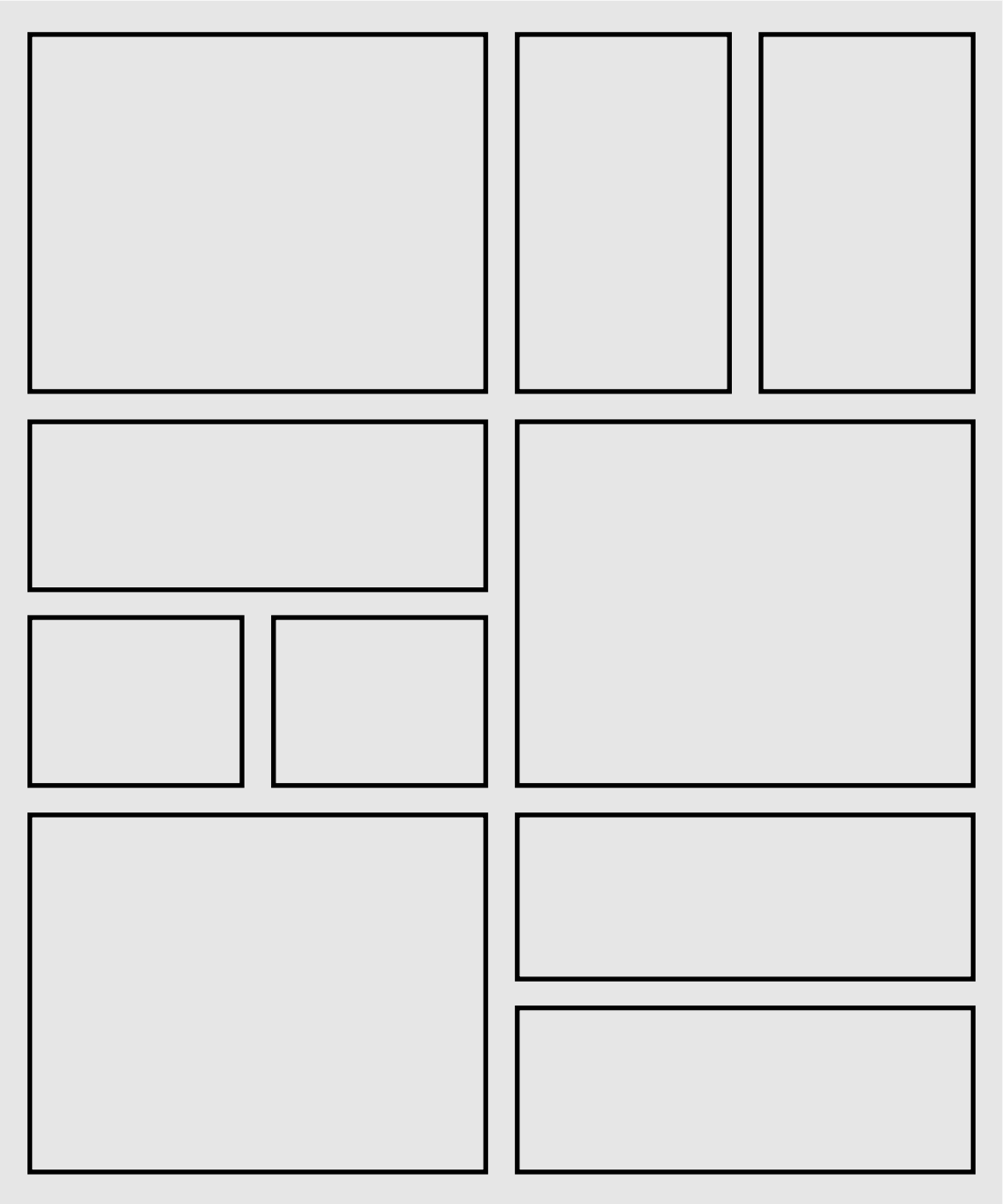
If there is only one topic but multiple visual languages, then the design contradicts the communicative intent and ends up being confusing.

You achieve visual consistency in your design by treating all Contours the same way.

Footnotes
Graphs
Captions
Headlines
Subheadings
Paragraphs
Images
Quotations
Tables
Emphases
...

CONSIDER WHITE SPACES

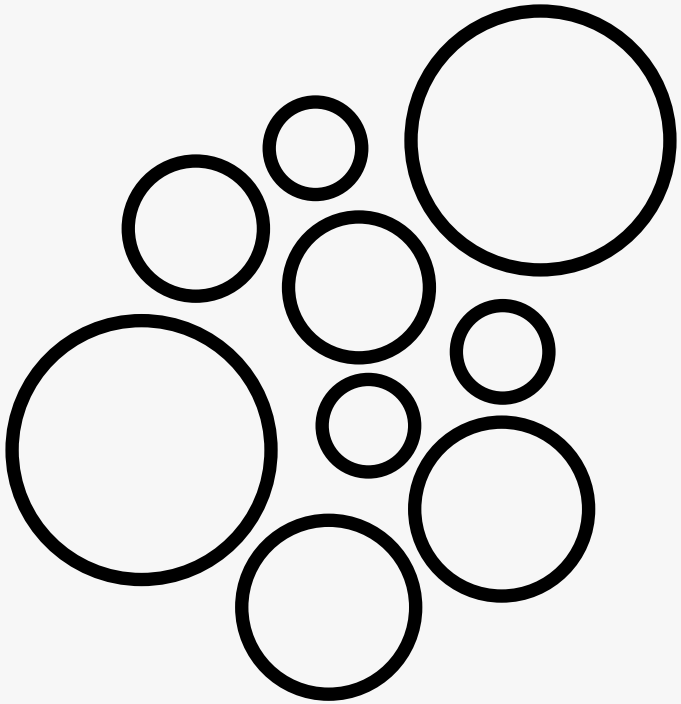
Creating a layout is not a game of Tetris, in which you want to fill up every last bit of your poster.

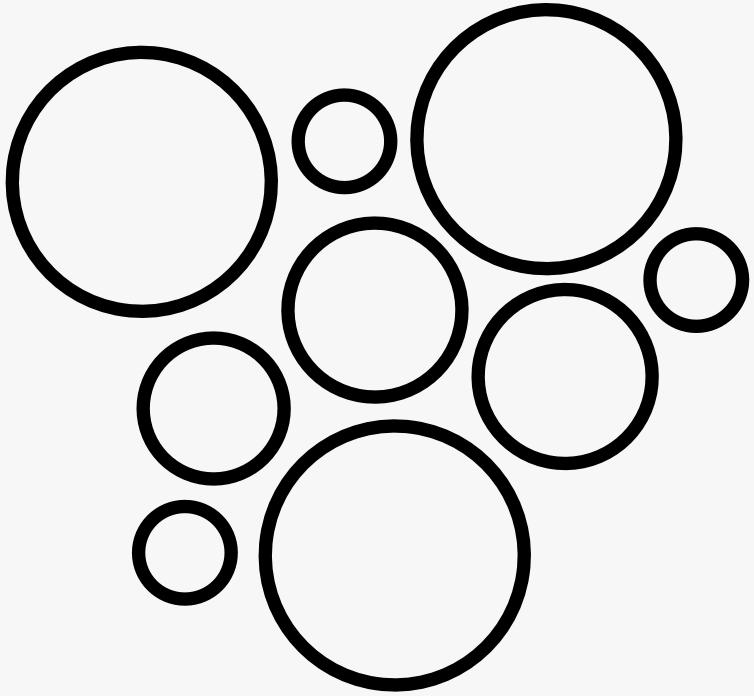


Law of Proximity (Gestalt Psychology):

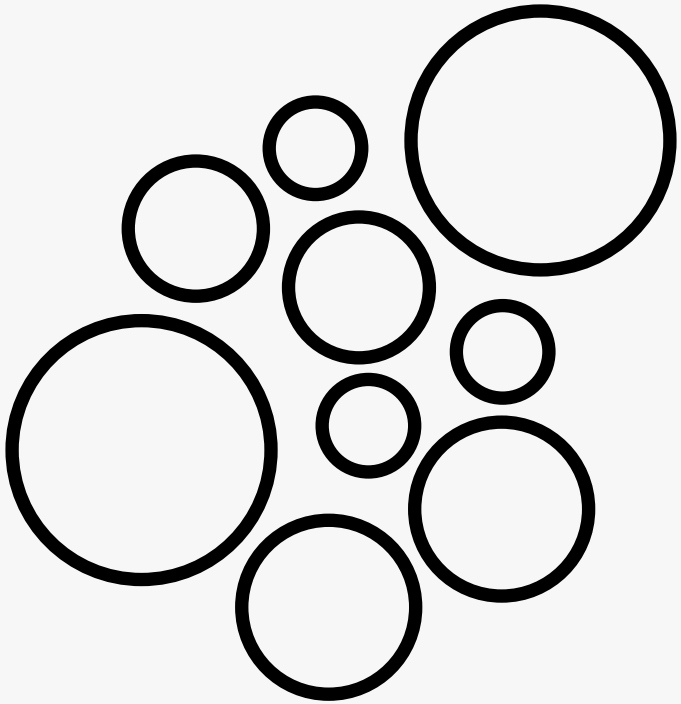
Elements that are close to each other are perceived as belonging together.

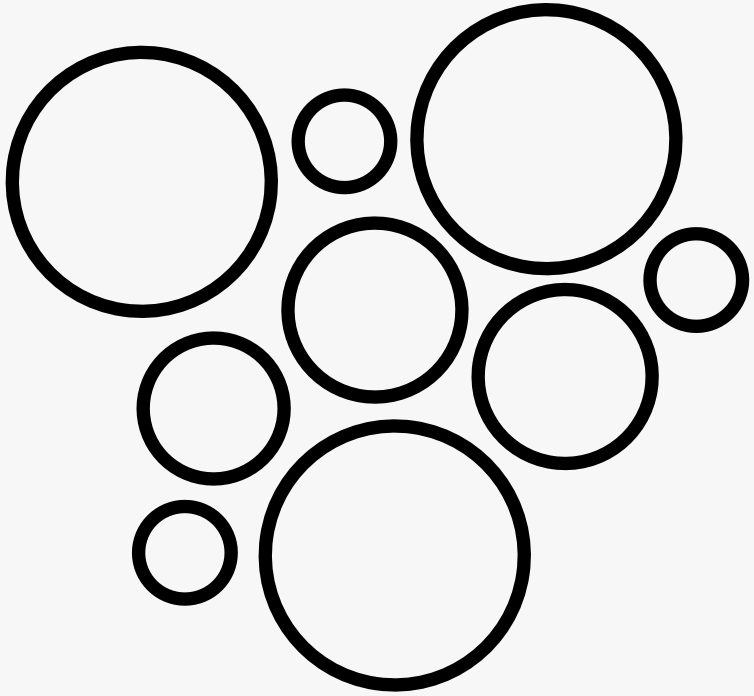
Example:



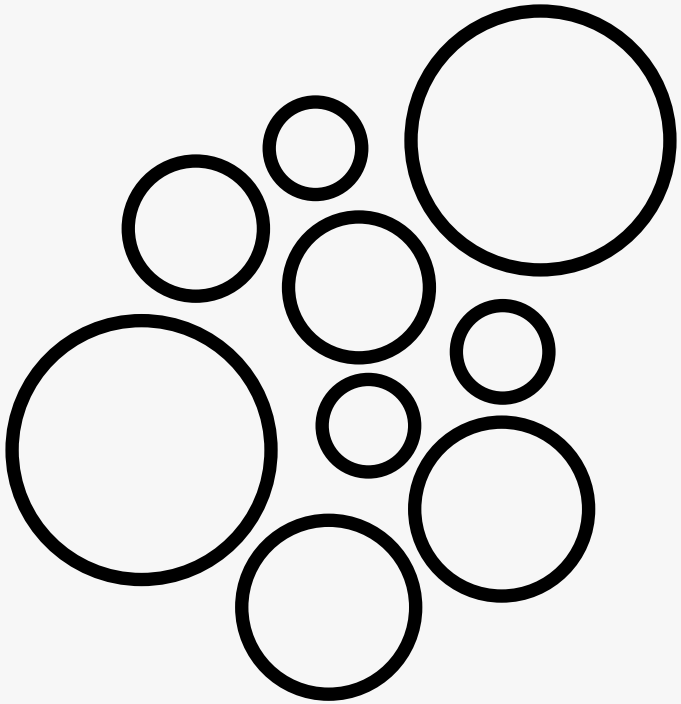


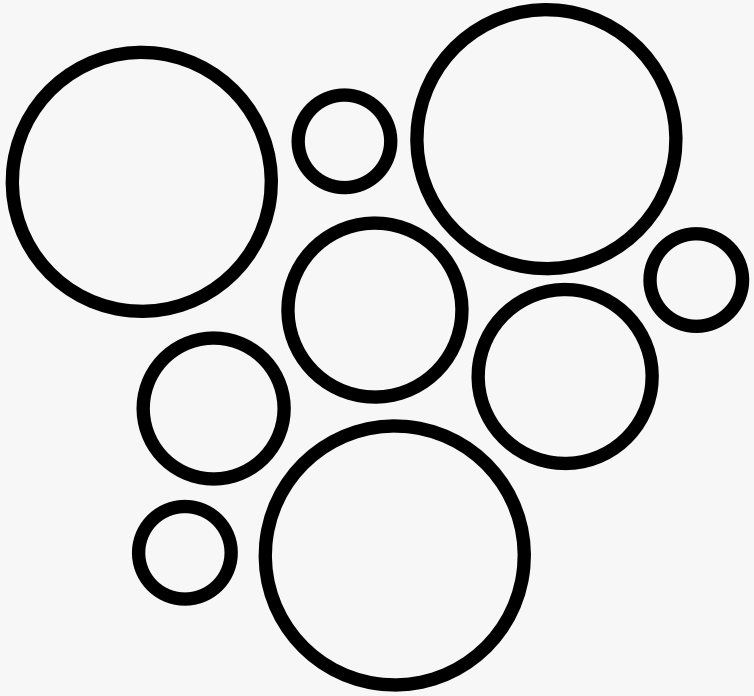
Inuitively, we distinguish two groups of elements: A group of elements on the left and one on the right.



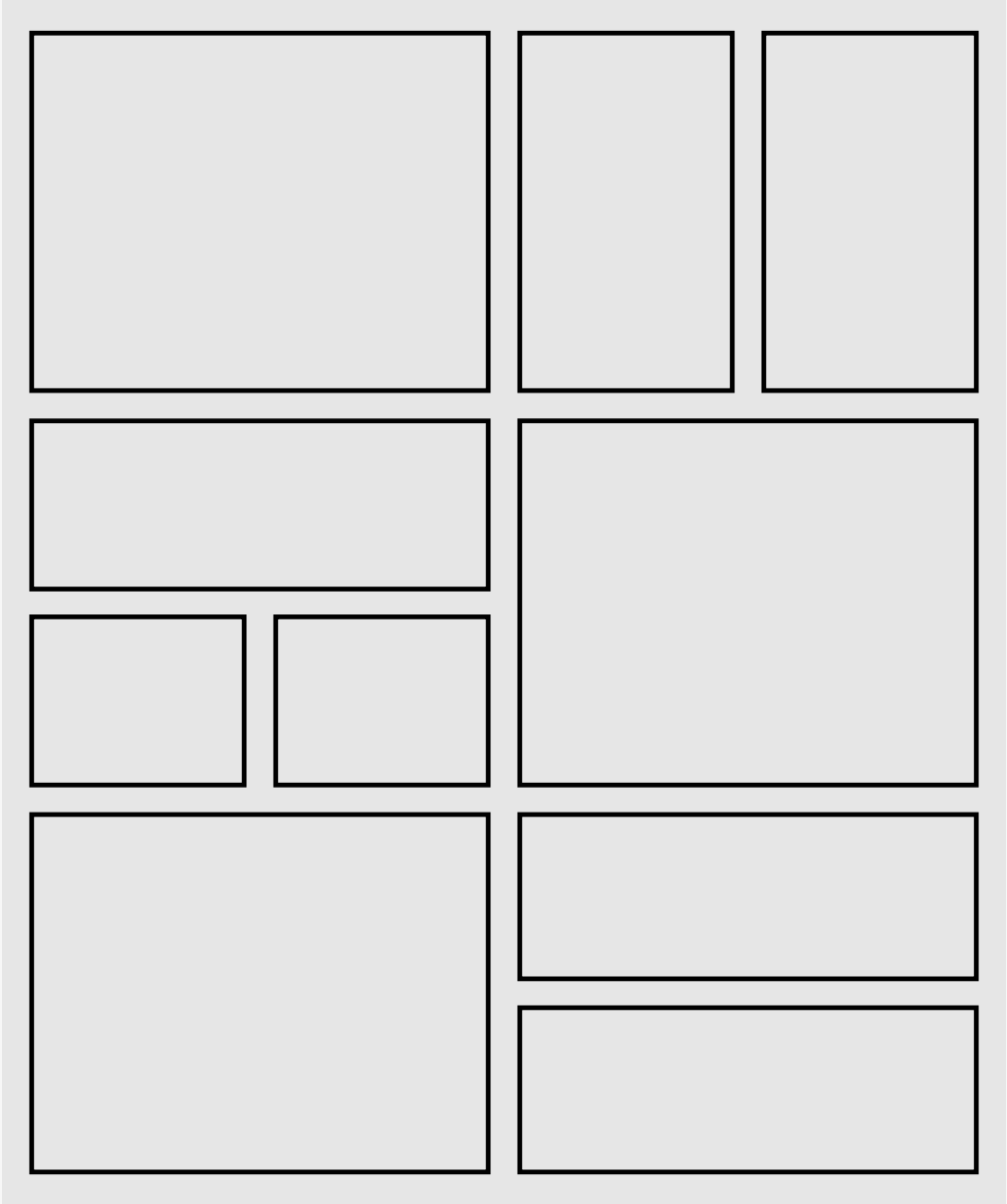


We would not inuitively see only one group of outlined circles or 3 groups based on different sizes.

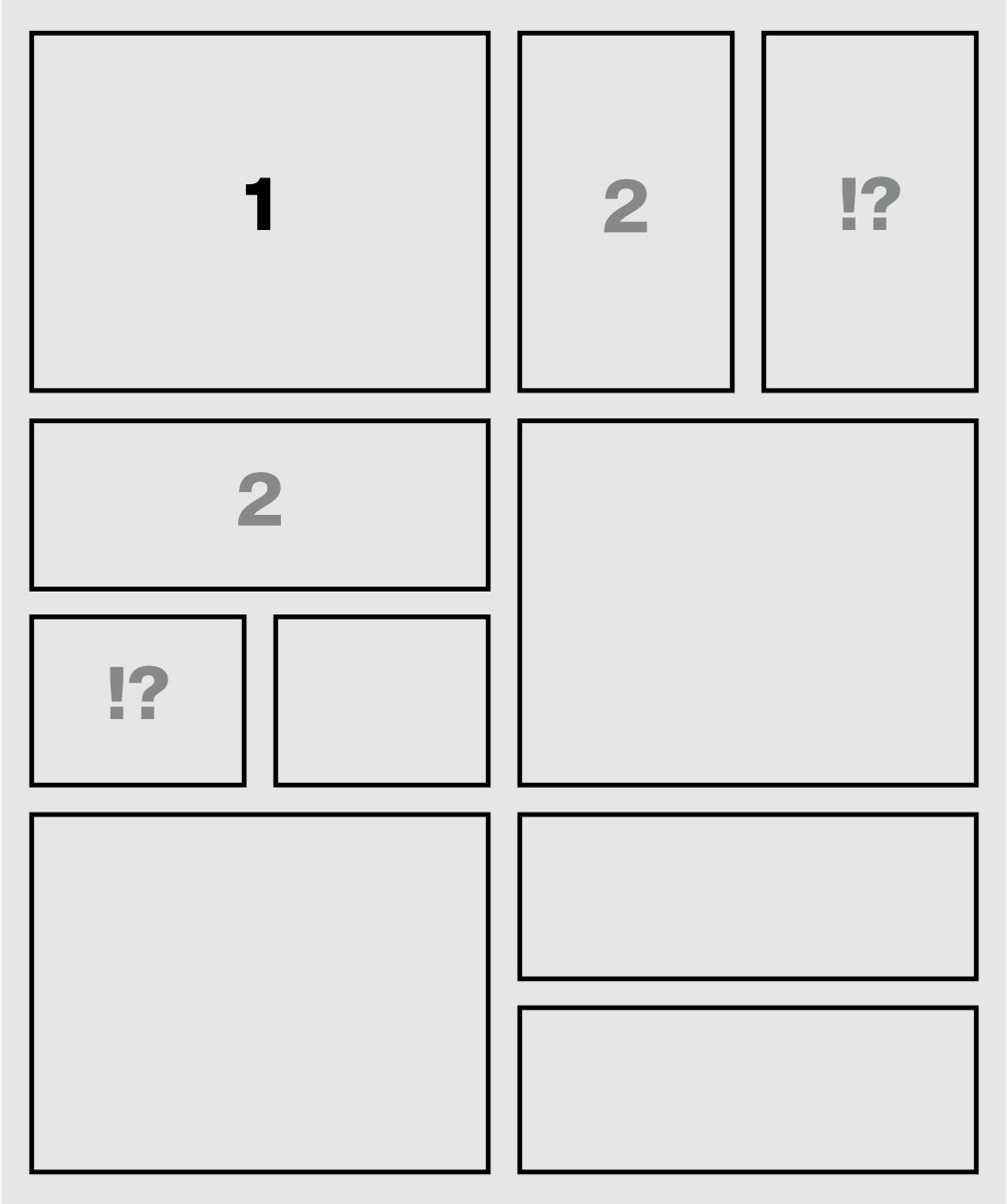




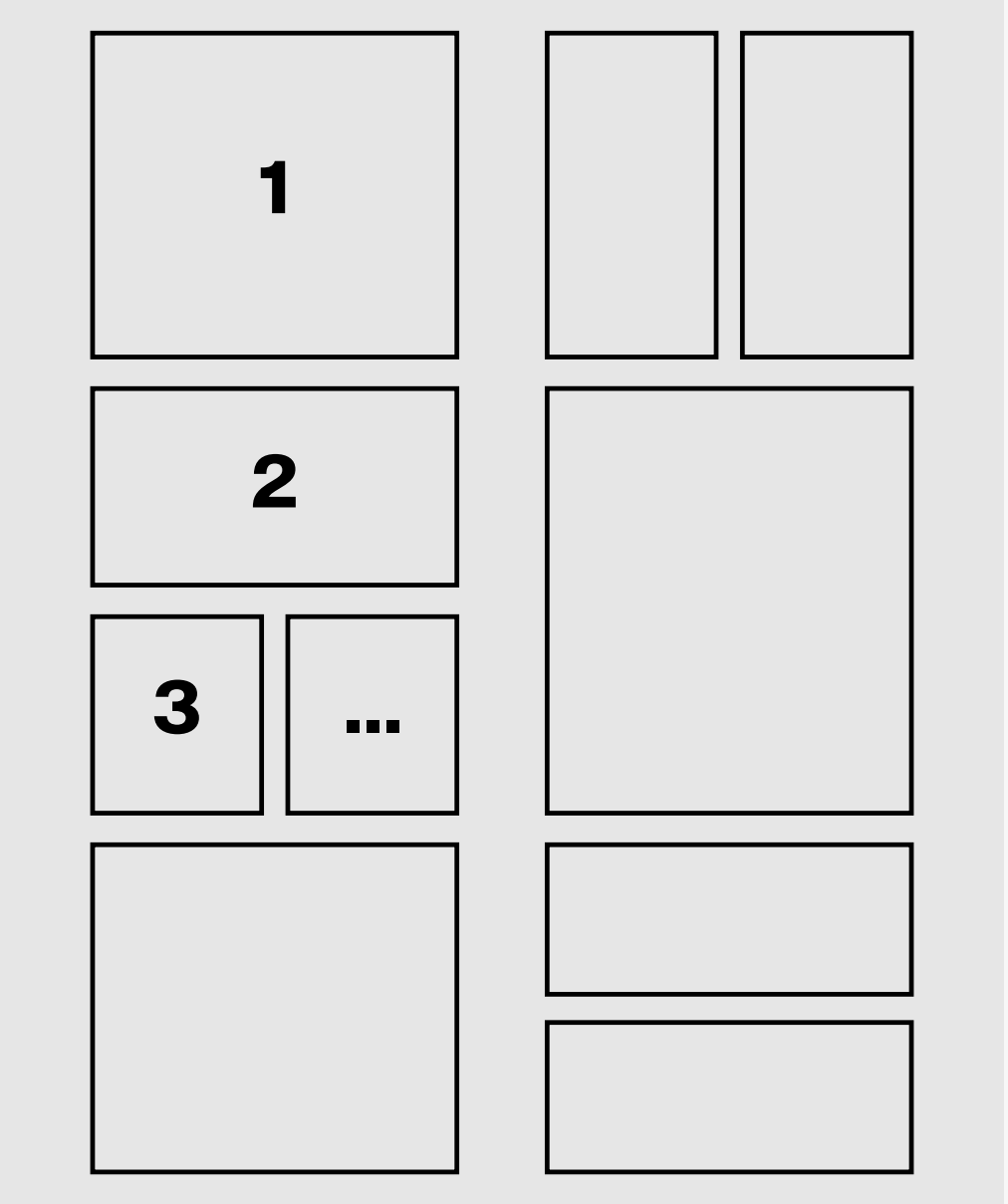
So, do not fill everything up with your layout.



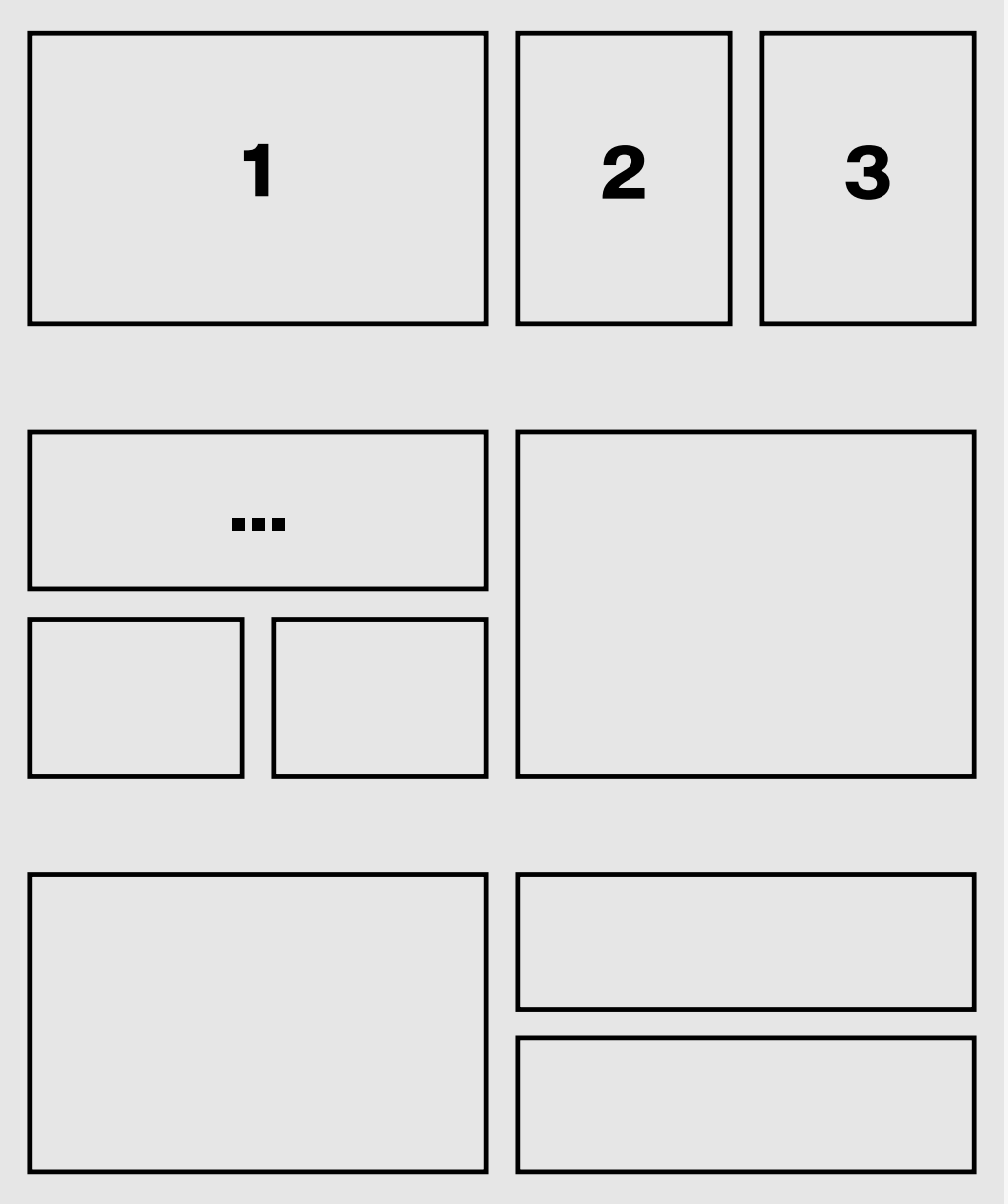
It might result in unclear reading direction.



Use white space to clarify the reading direction. e.g. Columns



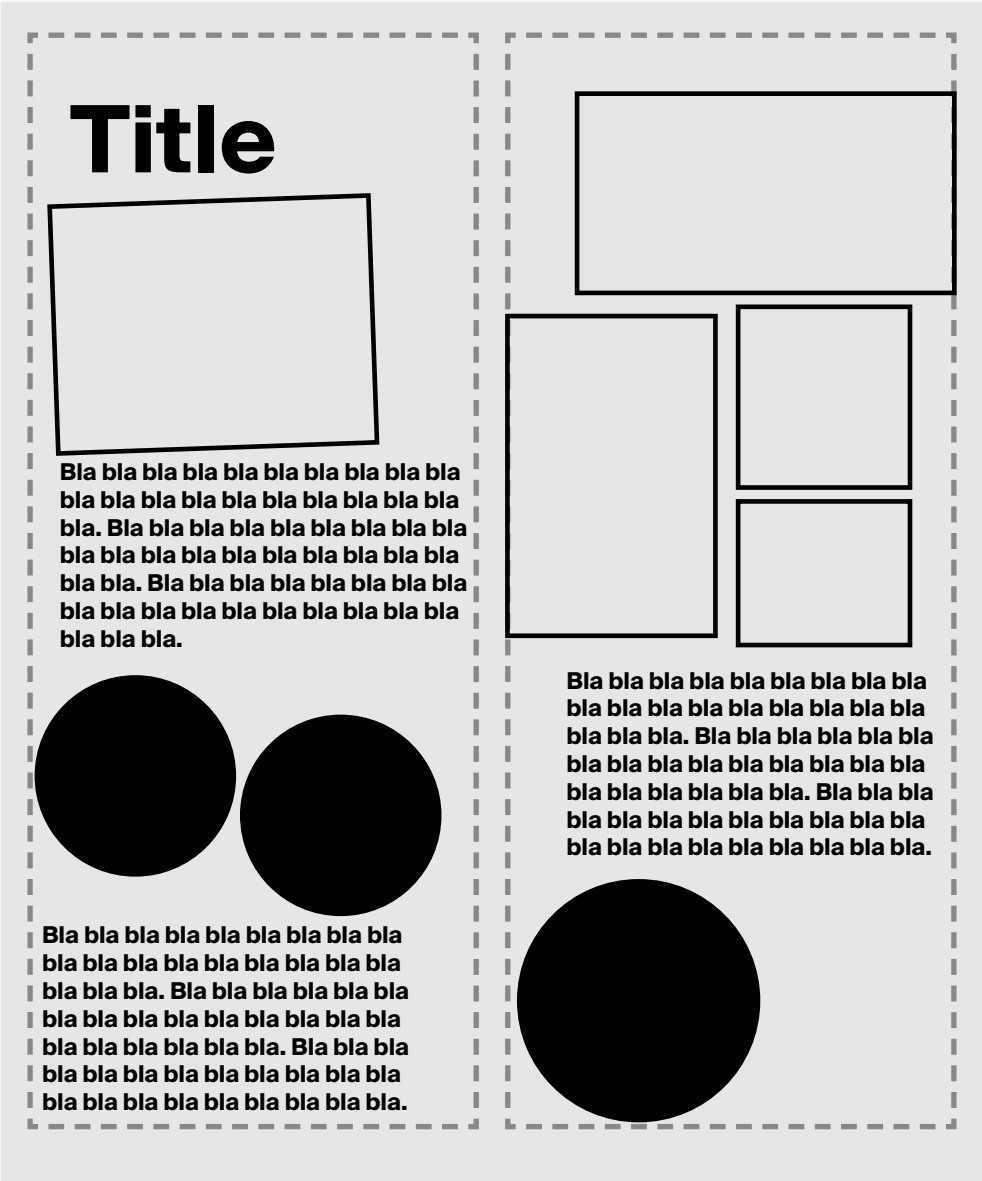
Use white space to clarify the reading direction. e.g. Rows



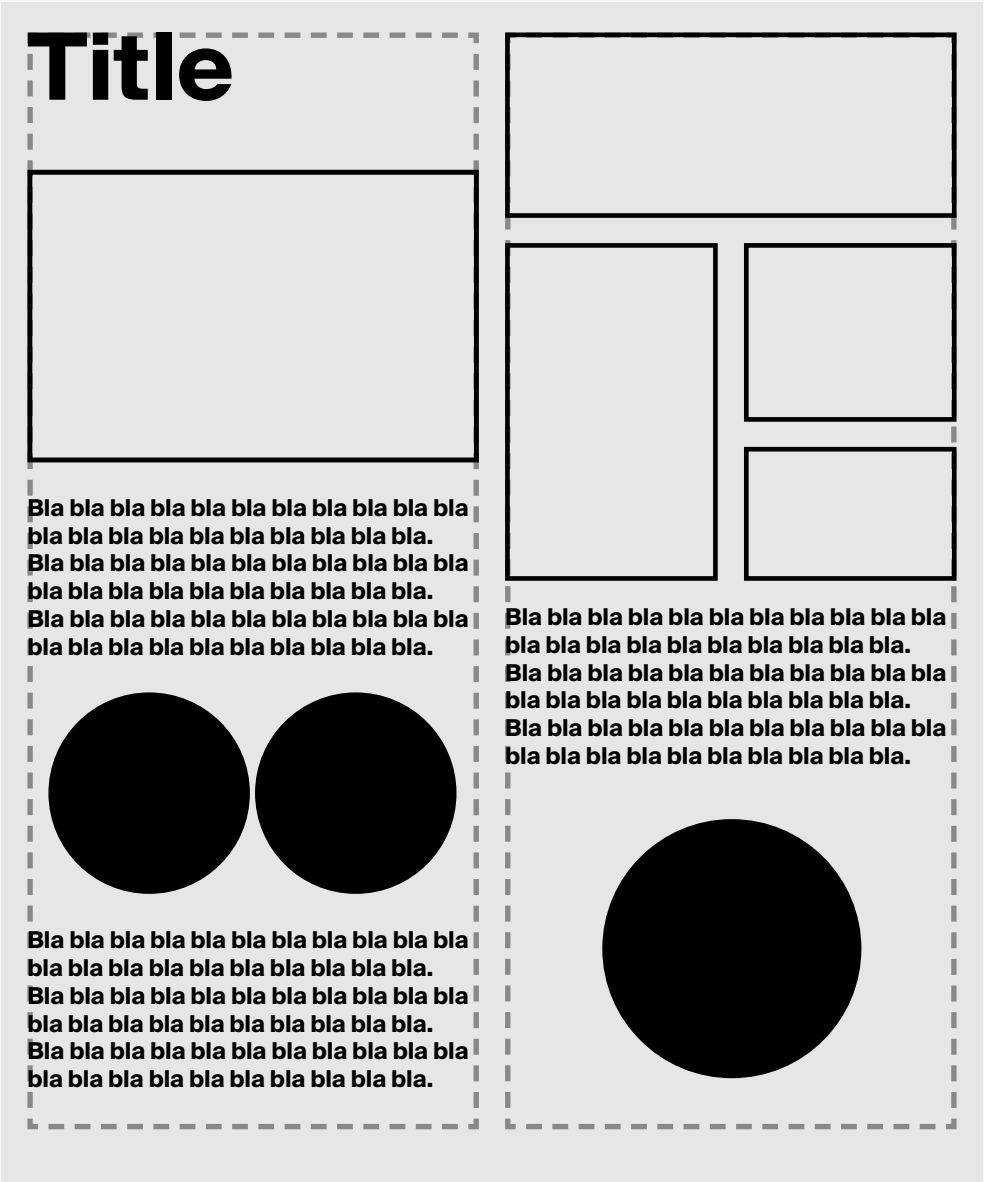
LINE THINGS UP

Be exact when arranging elements in rows or columns.

Do not place the elements just somewhere inside the columns or rows.

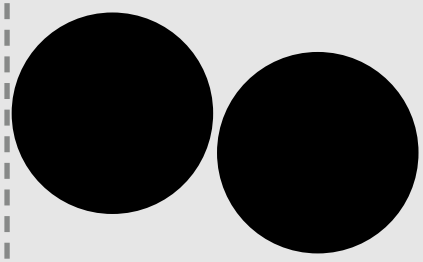


Align the elements to the borders of the columns or rows wherever it makes sense.

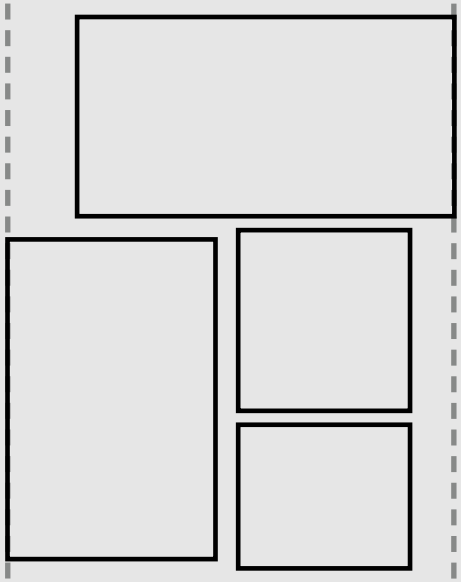

Title
Bla bla bla

Title

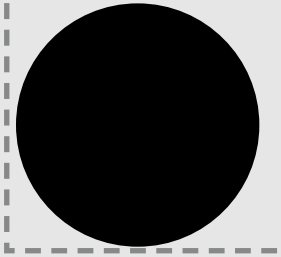
Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.



Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.

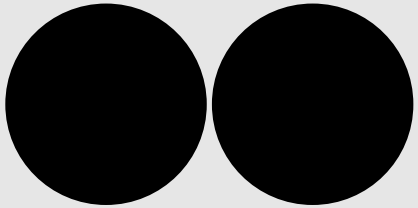


Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.

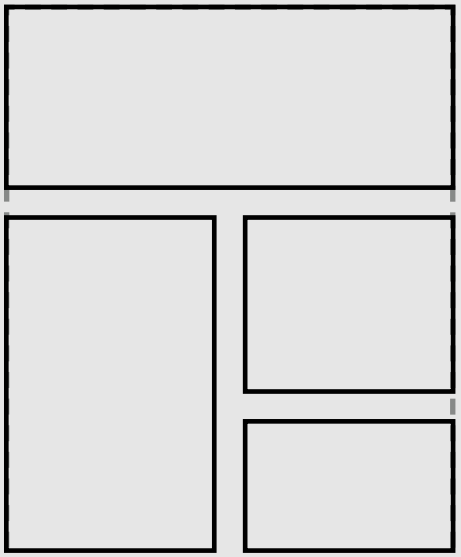


Title

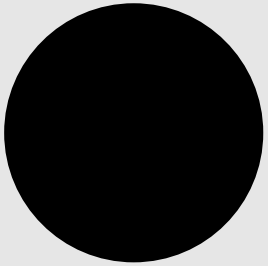
Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.



Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.

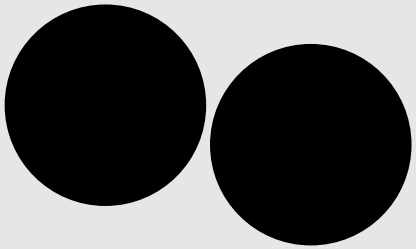


Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.

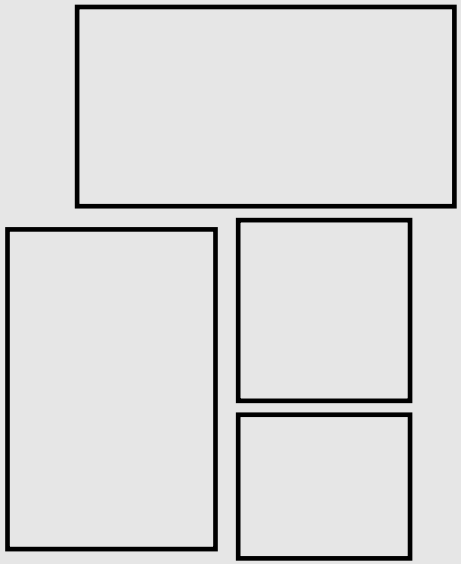


Title

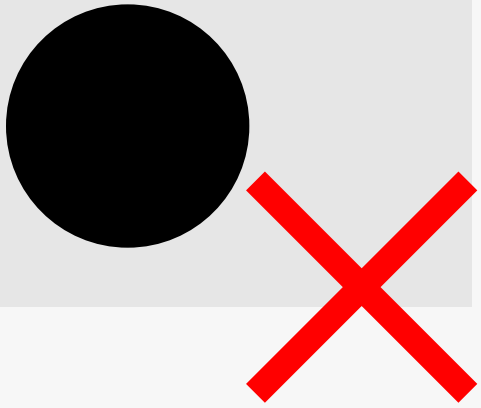
Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.



Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.

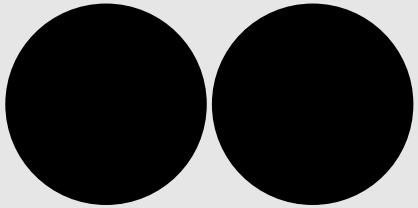


Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.

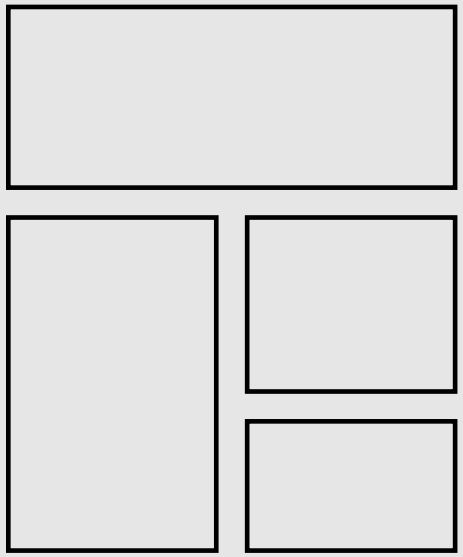


Title

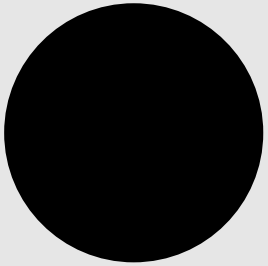
Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.

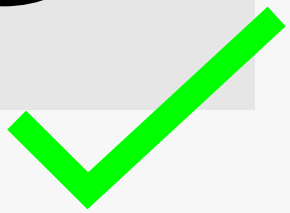


Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.



Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla. Bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla bla.





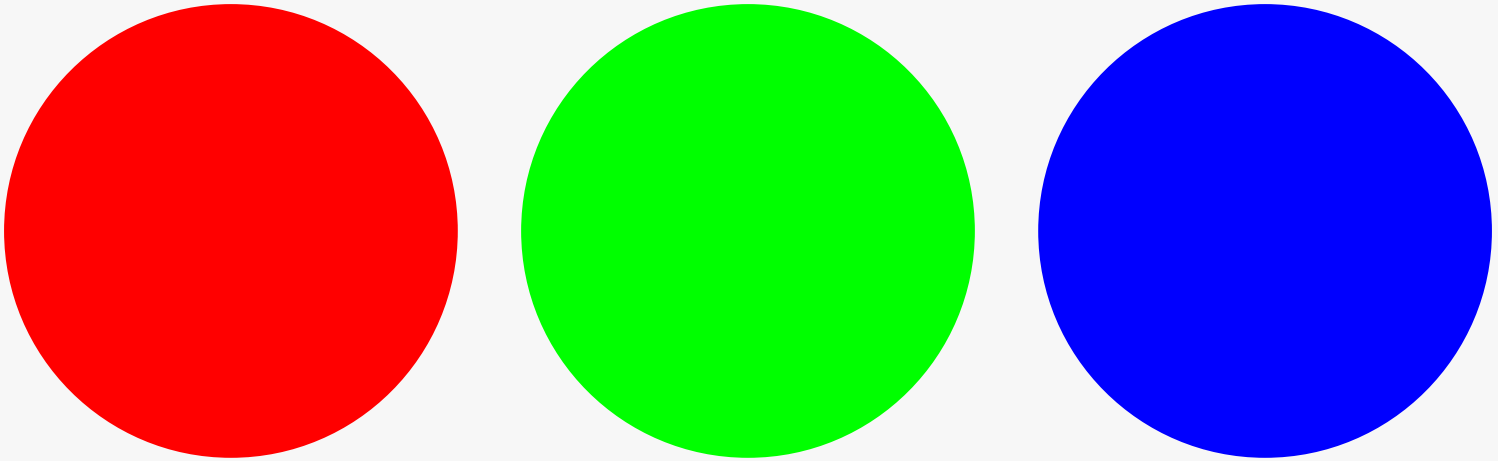
USE COLOURS WISELY

There is no general need to use colours at all.

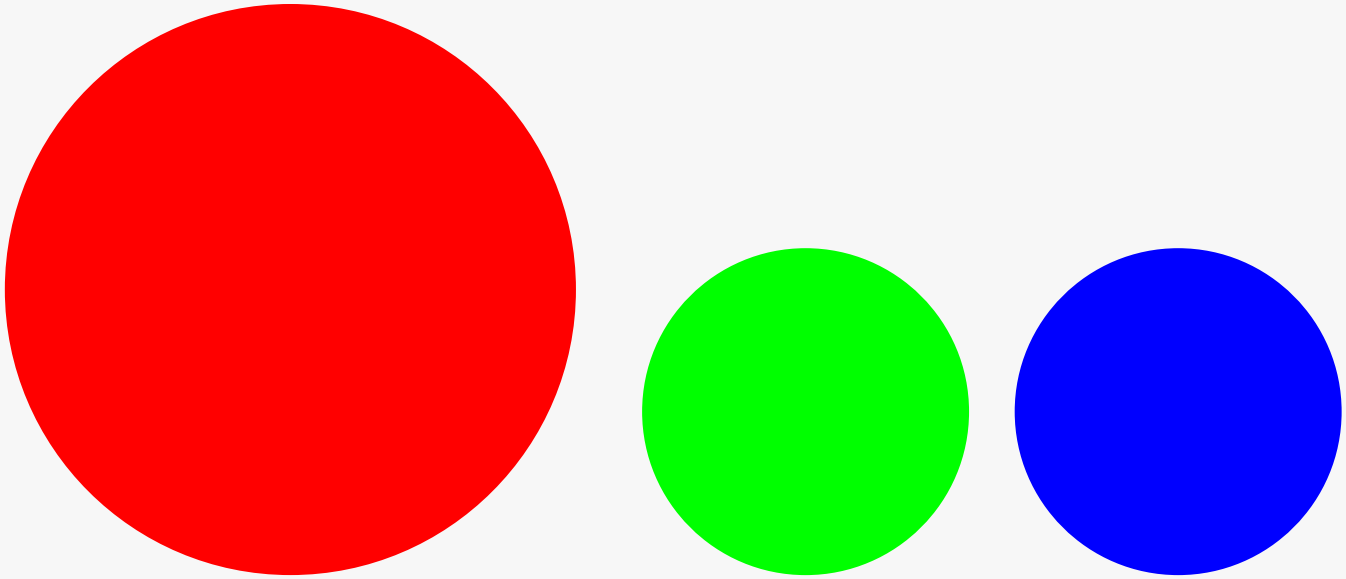
There is no general need to use colours at all.

However, if you want to work with colours ...

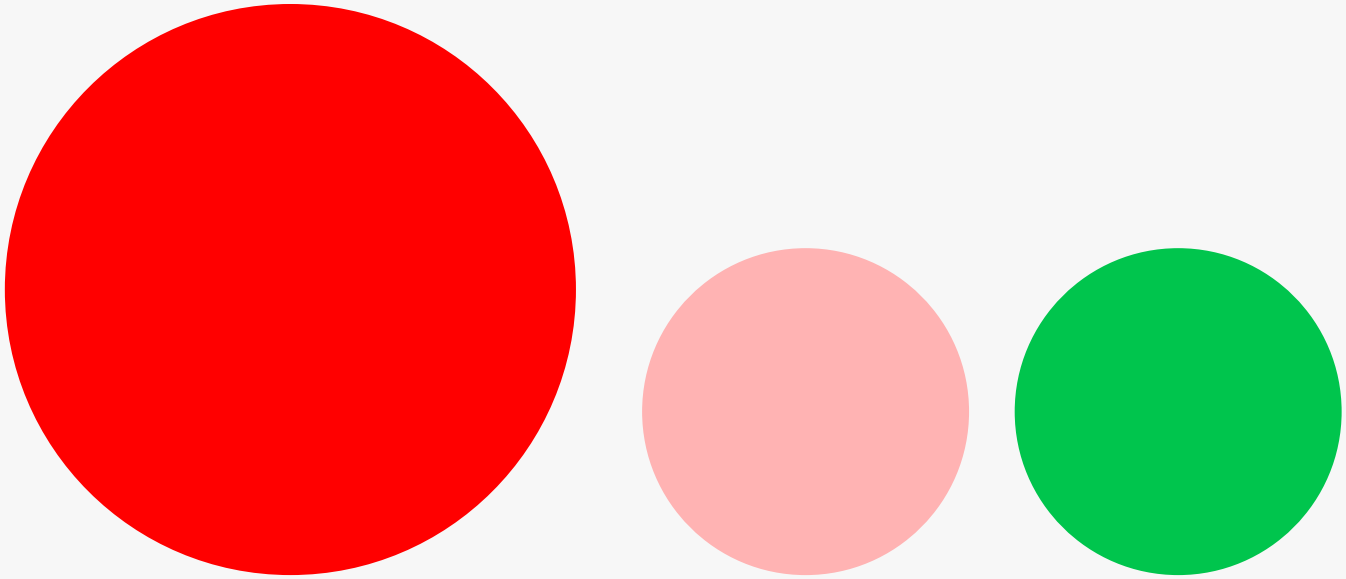
Limit your colour palette to a maximum of 3 colours.



Determine one colour as your primary one.



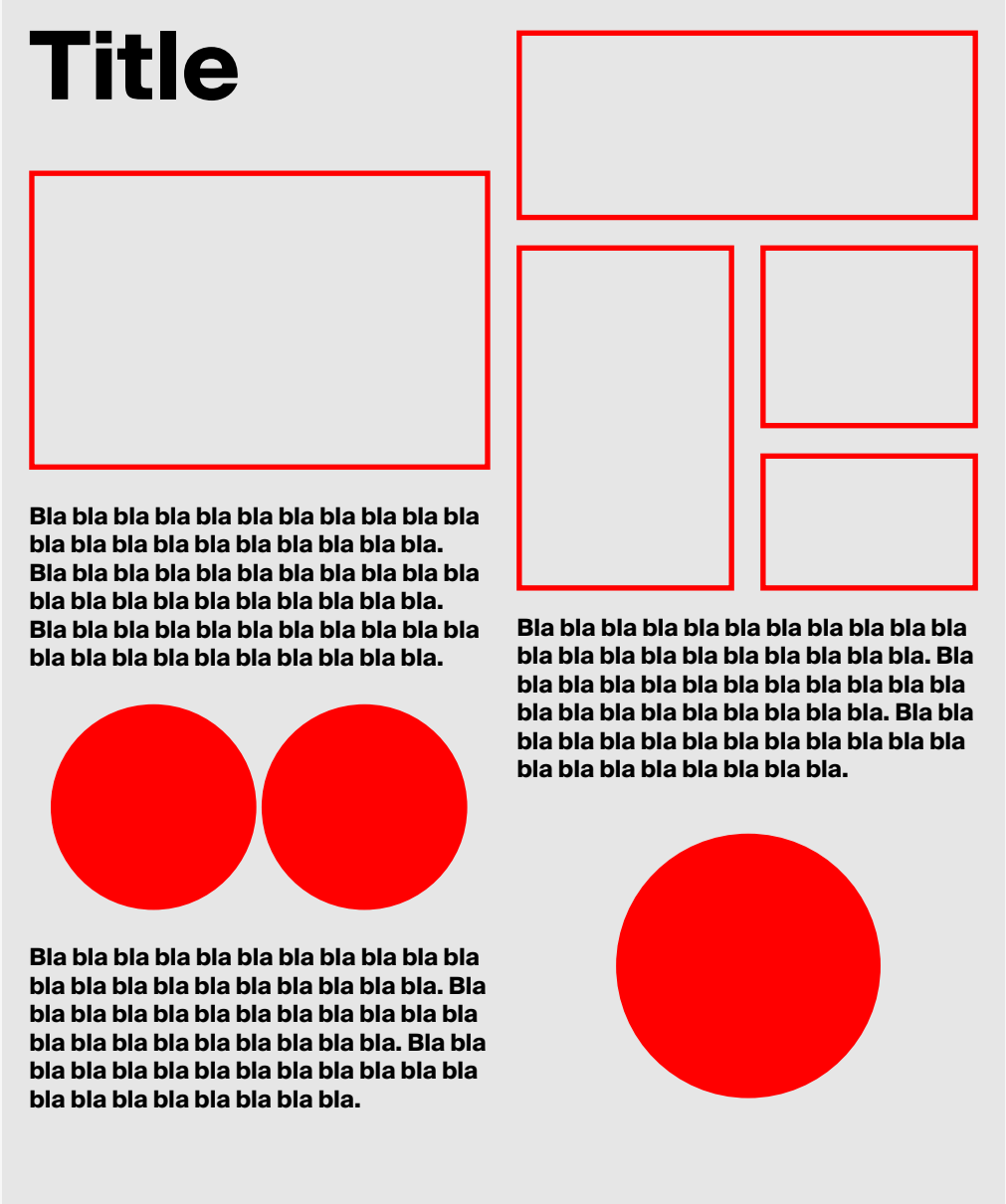
Derive the secondary colours from your primary one.



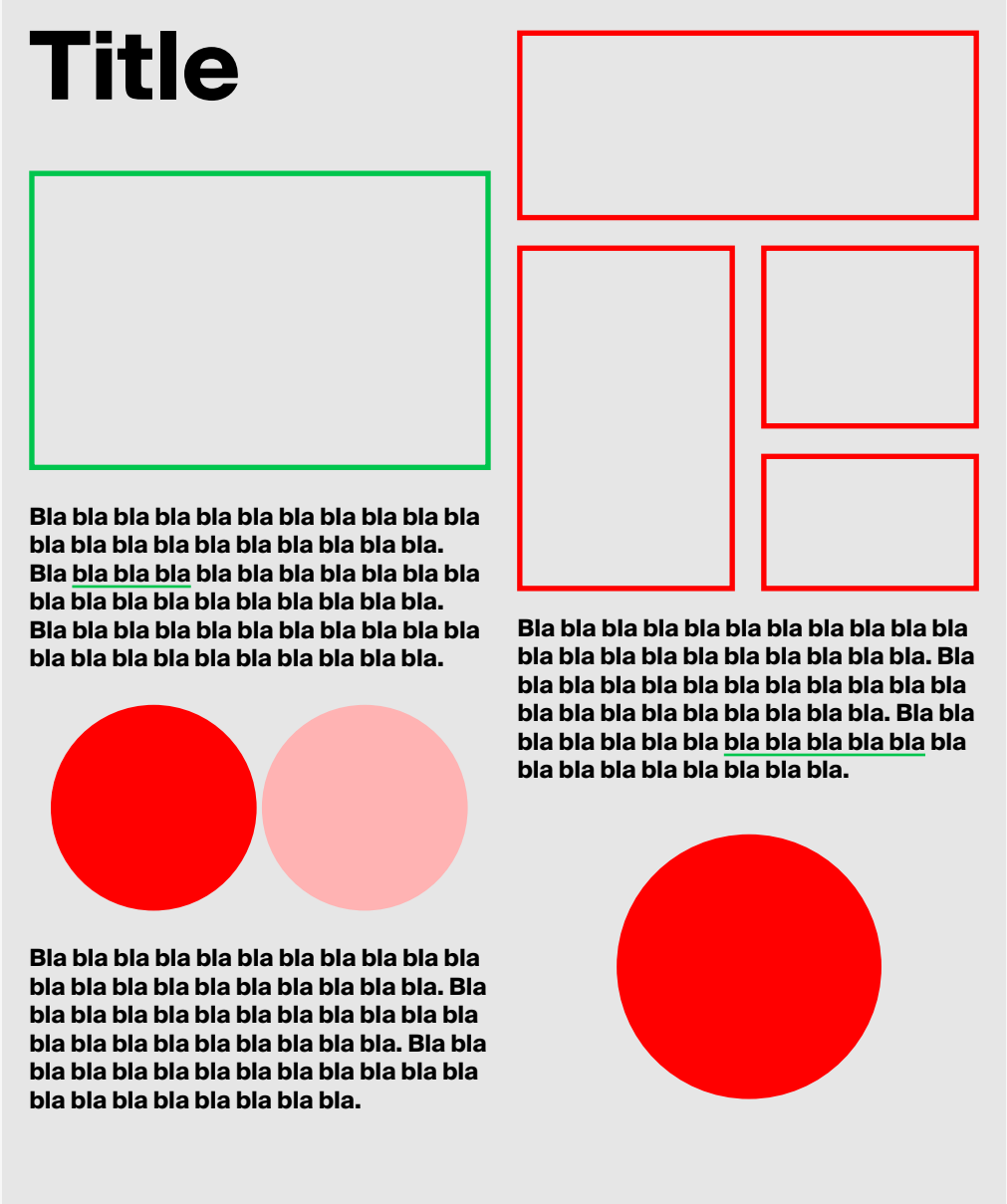
e.g.
by changing
the hue

e.g
complementary
contrast

The primary colour should be your default choice.


Title
Bla bla bla

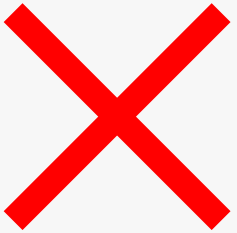
The secondary colours are for accentuation.


Title
Bla bla bla

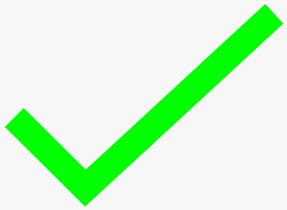
DO PROPER TYPESETTING

A column width that allows 5 – 10 words on a single line is usually considered pleasant to read.

Typesetting is the composition of text by means of arranging physical type or its digital equivalents. Stored letters and other symbols (called sorts in mechanical systems and glyphs in digital systems) are retrieved and ordered according to a language's orthography for visual display. Typesetting requires one or more fonts (which are widely but erroneously confused with and substituted for typefaces). One significant effect of typesetting was that authorship of works could be spotted more easily, making it difficult for copiers who have not gained permission. ...



Typesetting is the composition of text by means of arranging physical type or its digital equivalents. Stored letters and other symbols (called sorts in mechanical systems and glyphs in digital systems) are retrieved and ordered according to a language's orthography for visual display. Typesetting requires one or more fonts (which are widely ...



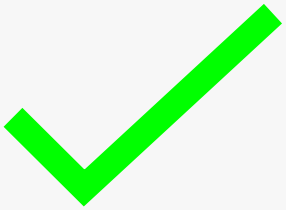
Typesetting is the composition of text by means of arranging physical type or its digital equivalents. Stored letters and other symbols ...

Set longer pieces of text left-aligned or justified, but avoid justified text in narrow columns.

You can center very short pieces of text to emphasise it, like you often see it done with quotes.

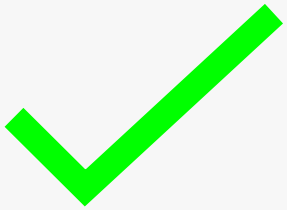
Left-aligned

Typesetting is the composition of text by means of arranging physical type or its digital equivalents. Stored letters and other symbols (called sorts in mechanical systems and glyphs in digital systems) are retrieved and ordered according to a language's orthography for visual display. Typesetting requires one or more fonts (which are widely but erroneously confused with typefaces).



Justified

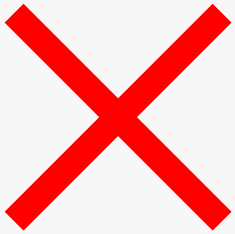
Typesetting is the composition of text by means of arranging physical type or its digital equivalents. Stored letters and other symbols (called sorts in mechanical systems and glyphs in digital systems) are retrieved and ordered according to a language's orthography for visual display. Typesetting requires one or more fonts (which are widely but erroneously confused with typefaces).



narrow columns

Centred

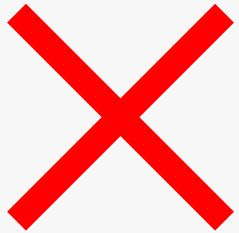
Typesetting is the composition of text by means of arranging physical type or its digital equivalents. Stored letters and other symbols (called sorts in mechanical systems and glyphs in digital systems) are retrieved and ordered according to a language's orthography for visual display. Typesetting requires one or more fonts (which are widely but erroneously confused with typefaces).



short texts

Right-aligned

Typesetting is the composition of text by means of arranging physical type or its digital equivalents. Stored letters and other symbols (called sorts in mechanical systems and glyphs in digital systems) are retrieved and ordered according to a language's orthography for visual display. Typesetting requires one or more fonts (which are widely but erroneously confused with typefaces).

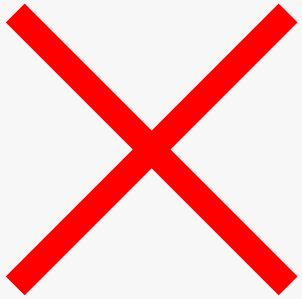


USE A SIMPLE TYPEFACE

Do not use eccentric typefaces.

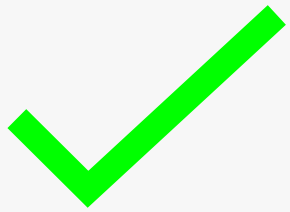
Do not use eccentric typefaces.

Gabriola, **Hawthorn,**
Courier New, *Segoe Script*,
SYNCO, **Comic Sans**,
...



Simple, boring typefaces are often the most clear and readable ones. So, just use a simple, pre-installed font.

Arial, Times,
Garamond, Helvetica,
Georgia, **San Francisco**,
...



ADJUST ACCORDING TO SIZES

The effective image resolution should be over 150 dpi.

500 × 375 px

185 dpi

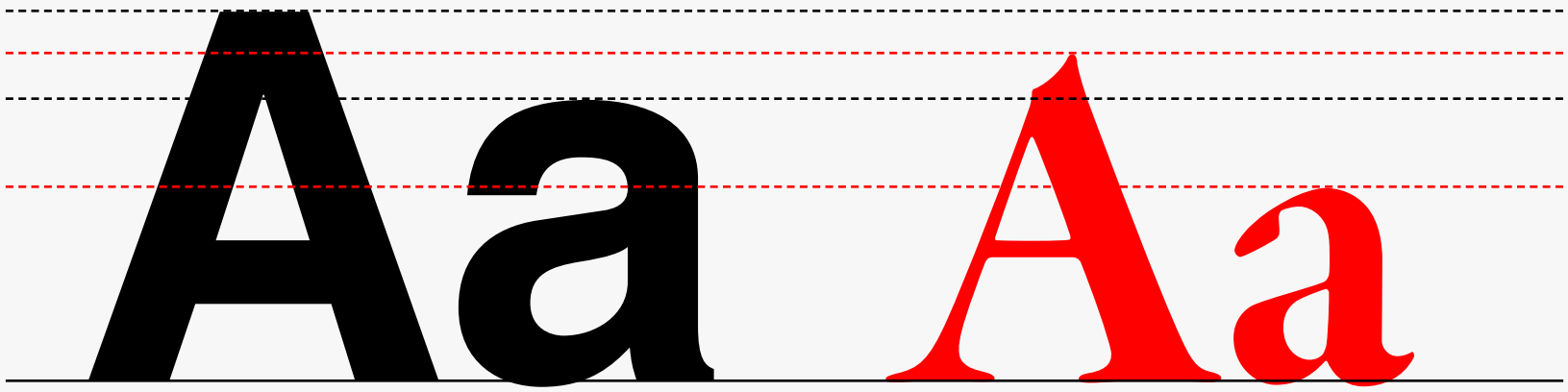
500 × 375 px

71 dpi

Side note

If the software you are using for poster design cannot tell you the effective dpi, then you use the wrong software.

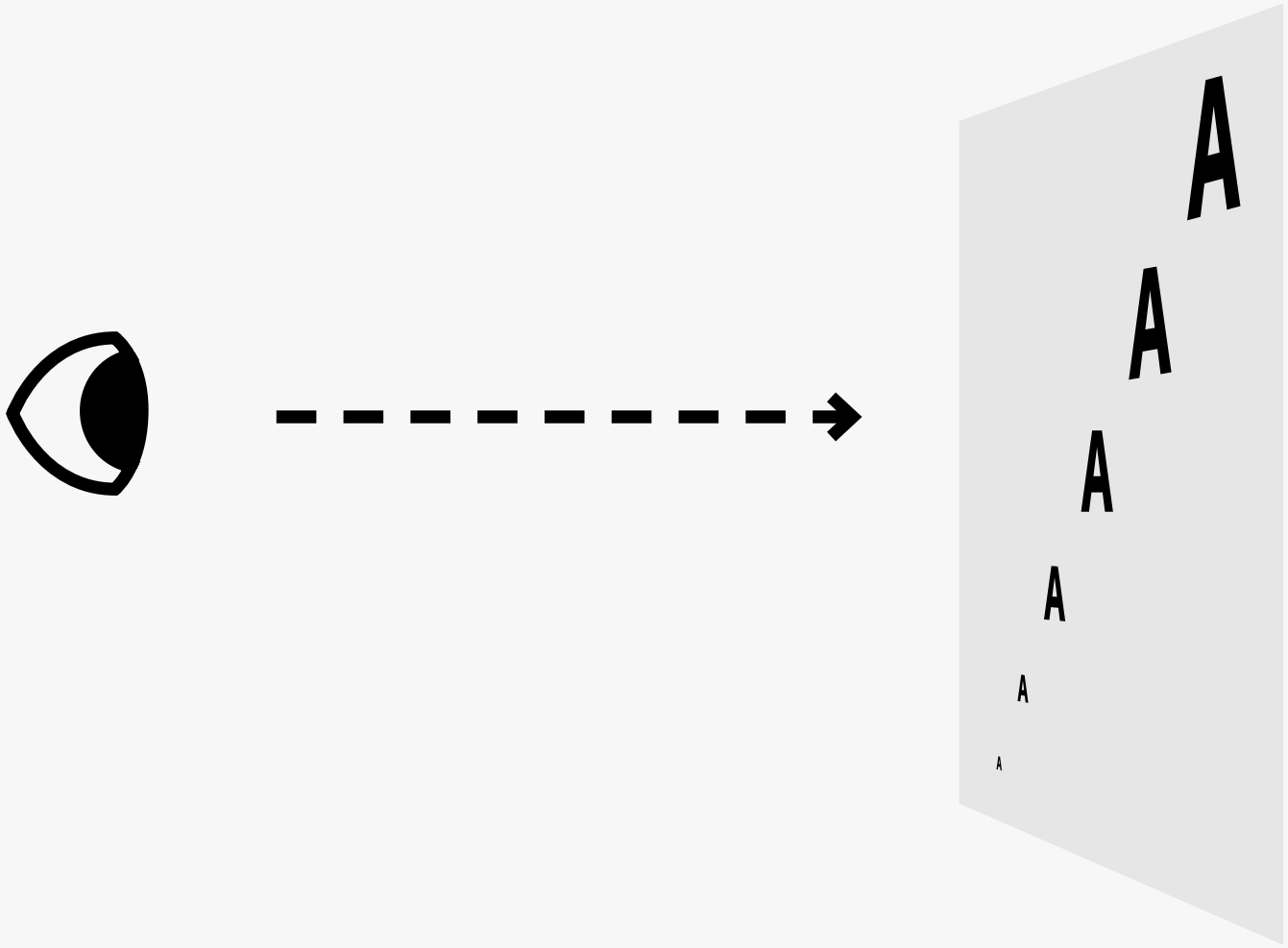
Pt-sizes do only loosely relate to the actual font size and are therefore not completely reliable.



200 Pt, Helvetica, Bold

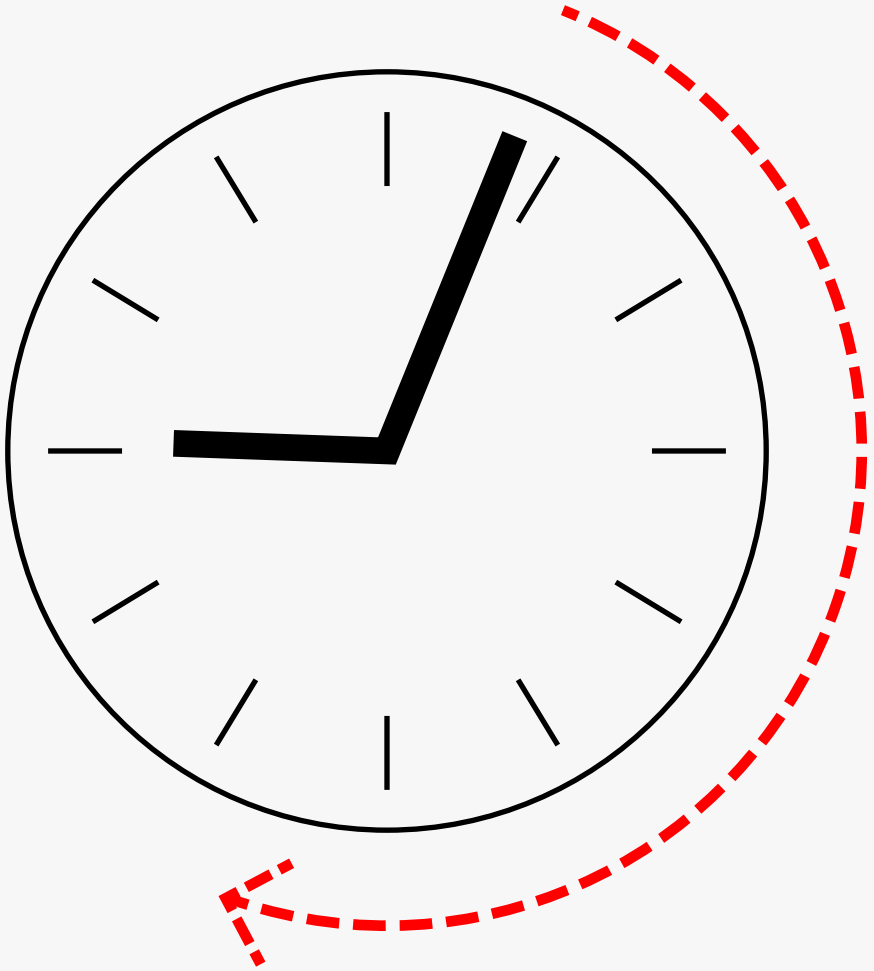
200 Pt, Garamond, Bold Display

When in doubt, print it and evaluate the sizes from a typical reading distance.

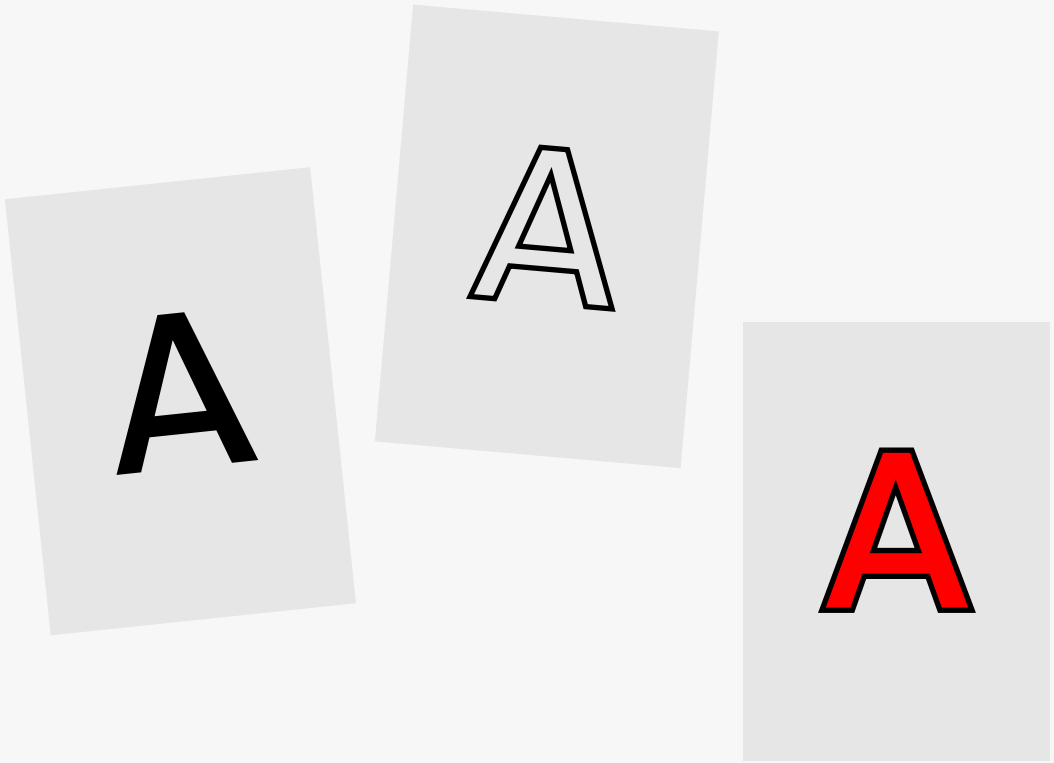


TAKE TIME → MAKE VARIANTS → COMPARE

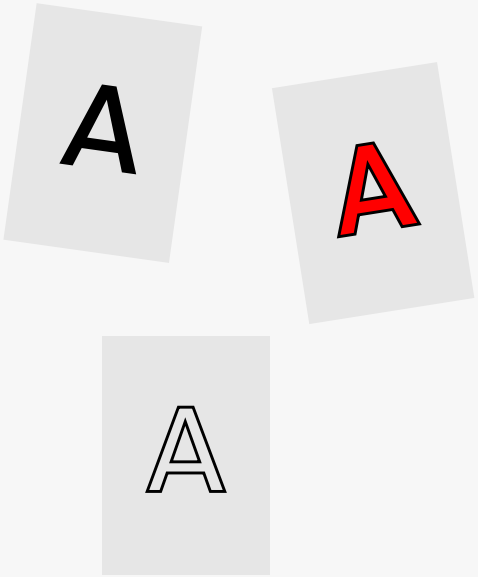
Take your time to design and properly evaluate your sketches.



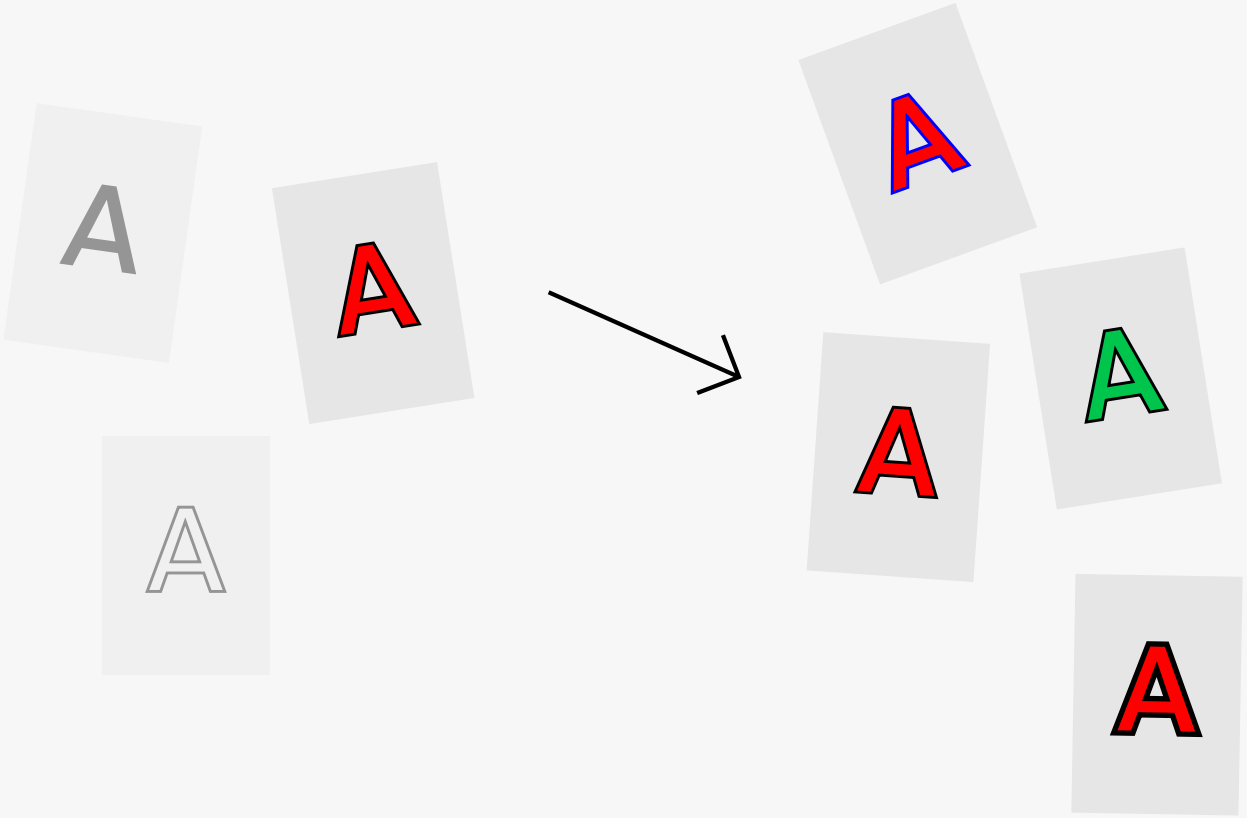
Design by creating variants.



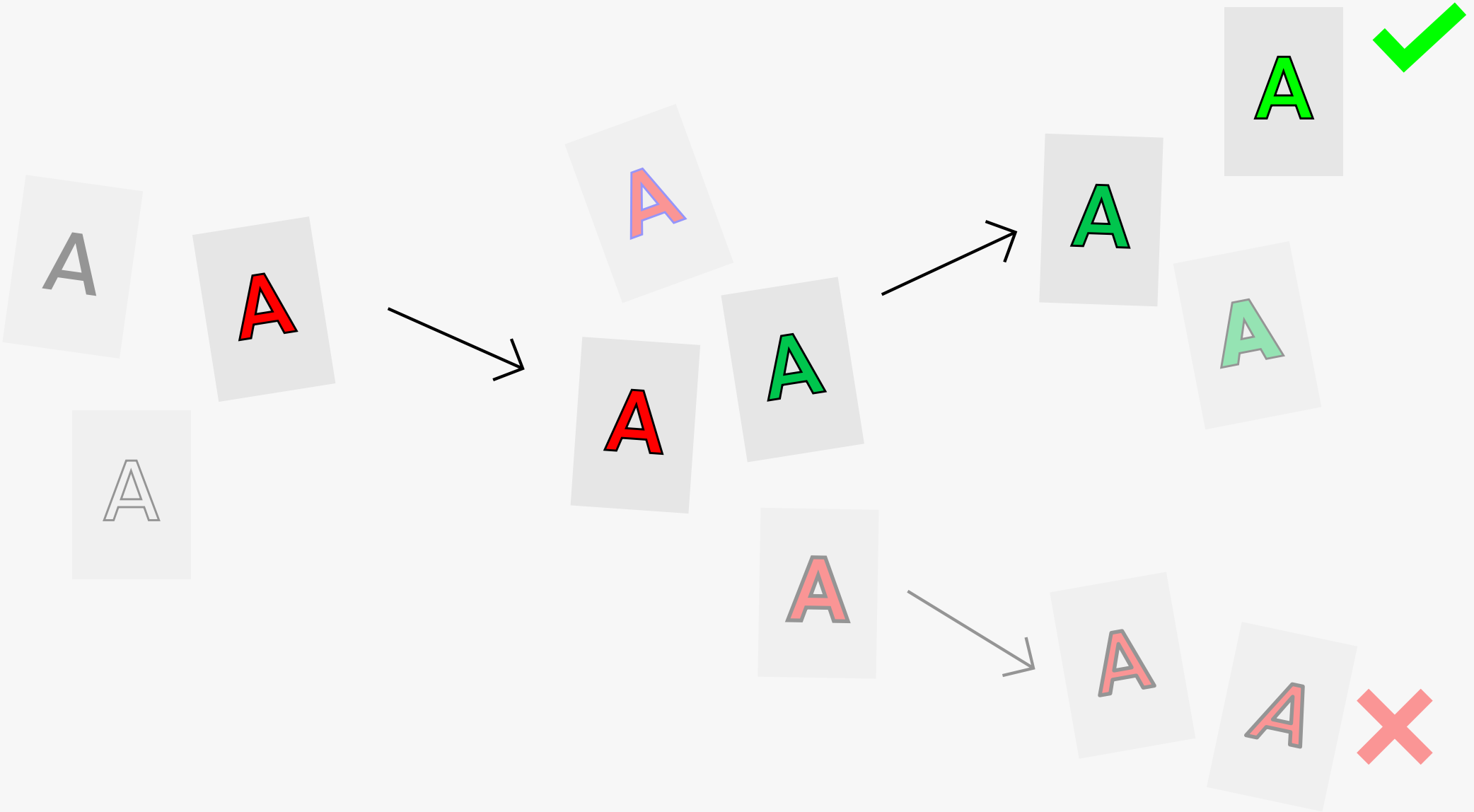
Use our advice to compare and evaluate variants you designed ...



... and continue creating variants based on the most promising design ...



... until you reach a good end result.



That’s it!

Need help with your project?

Let’s talk!

Looking for more insights?

Subscribe

NGUYEN GOBBER
TYRNAUER GASSE 8 / 15
A-1100 VIENNA

NGUYENGOBBER.COM
MAIL@NGUYENGOBBER.COM
+43 (0) 680 141 7665