



Welcome to the evolution of print.

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# printing specifications & artwork setup guide

this guide is designed for readers with basic knowledge of  
adobe indesign, illustrator and photoshop  
who want to setup the artwork properly for printing  
also include tutorial for canva user

## 1. printing specifications

- 1.1 standard sizes guide
- 1.2 getting started - choosing the right application

## 2. artwork setup guides (indesign)

- 2.1 bleed
- 2.2 borders
- 2.3 margin
- 2.4 brochure setup

## 3. book layout

- 3.1 perfect bind cover and spine
- 3.2 perfect bind text pages layout
- 3.3 saddle stitch cover and text

## 4. faq in artwork

- 4.1 vector & raster graphics
- 4.2 overprint issue
- 4.3 spot colour / pantone
- 4.4 special effect
- 4.5 special font used
- 4.6 missing links from indesign
- 4.7 large file size
- 4.8 variable data printing VDP

## 5. creating a press ready PDF

## 6. canva tutorial

- 6.1 artwork template & size
- 6.2 set margin
- 6.3 create bleed
- 6.4 create pdf for print

## 1. printing specifications

for all business cards, flyers/cards & brochures products

- 3mm bleed, acceptable margin & border (for more details, please see section 2)
- press ready PDF with crop marks and bleed (for more details, please see section 5)

for perfect bind book

- 3mm bleed, acceptable margin & border (for more details, please see section 2)
- press ready PDF with crop marks and bleed (for more details, please see section 5)
- supply outside cover and inside cover as a single PDF according to this order  
p1 outside cover with spine - p2 inside cover (for more details, please see section 3.1)
- supply text as a single PDF with individual pages and not spreads (for more details, please see section 3.2).

for saddle stitch book

- 3mm bleed, acceptable margin & border (for more details, please see section 2)
- press ready PDF with crop marks and bleed (for more details, please see section 5)
- supply cover & text as a single PDF with individual pages and not spreads (for more details, please see section 3.3).

### 1.1 standard sizes guide

BC - 90x55mm  
DL - 210x99mm  
A6 - 148x105mm  
A5 - 210x148mm  
A4 - 297x210mm  
A3 - 420x297mm

wide format

A2 - 594x420mm  
A1 - 841x594mm  
A0 - 1189x841mm

brochure

for roll fold, any panel to be folded in should be at least 2mm shorter, not apply to z-fold

4pp DL (short edge fold) - finish size DL, flat size 420x99mm  
4pp DL (long edge fold) - finish size DL, flat size 198x210mm  
6pp DL (long edge fold) - finish size DL, flat size 297x210mm - panel size 97-100-100  
8pp DL (long edge fold) - finish size DL, flat size 394x210mm - panel size 96-98-100-100  
4pp A6 (long edge fold) - finish size A6, flat size 210x148mm  
4pp A6 (short edge fold) - finish size A6, flat size 296x105mm  
6pp A6 (long edge fold) - finish size A6, flat size 313x148mm - panel size 103-105-105  
8pp A6 (long edge fold) - finish size A6, flat size 414x148mm - panel size 101-103-105-105  
4pp A5 (long edge fold) - finish size A5, flat size 296x210mm  
4pp A5 (short edge fold) - finish size A5, flat size 420x148mm  
6pp A5 (long edge fold) - finish size 210x143, flat size 427x210mm - panel size 141-143-143  
4pp A4 (long edge fold) - finish size A4, flat size 420x297mm

for example of margin setup of a 6ppDL brochure, please see section 2.4

## 1.2 getting started - choosing the right application

choosing the right application is very important in creating artwork for printing, just like using the right tool to do the right job, you don't want to use a little butter knife to cut a tree. Here are some tips to help you decide which application to use in creating artwork in different situations. Sometimes you might need to use a few different applications to create the artwork

microsoft office (word, powerpoint)

they are not artwork layout programs, they don't embed essential printing elements to create a proper artwork for printing such as

1. logo / vector has to be converted to jpg or png which will affect the resolution
2. no bleed and crop marks setting
3. transparency are made up from pixels

adobe photoshop (raster based application)

1. good for handling images and photos, adding special effect and adjusting colour
2. not good for dealing with text (pixelated text) and layout (hard to align)

adobe illustrator (vector based application)

1. good for creating logo, icons and vector based artworks
2. good for layout single page flyer / business card
3. not good for multiple pages layout / books

adobe indesign (vector based application)

1. good for layout of books / flyers / business cards
2. good for setup master to format consistent elements throughout the document
3. good for handling variable data printing with excel database
4. good for combining elements from pdf, illustrator and photoshop to create the final artwork
5. not as good for creating icons and logos compared with illustrator

*example:*

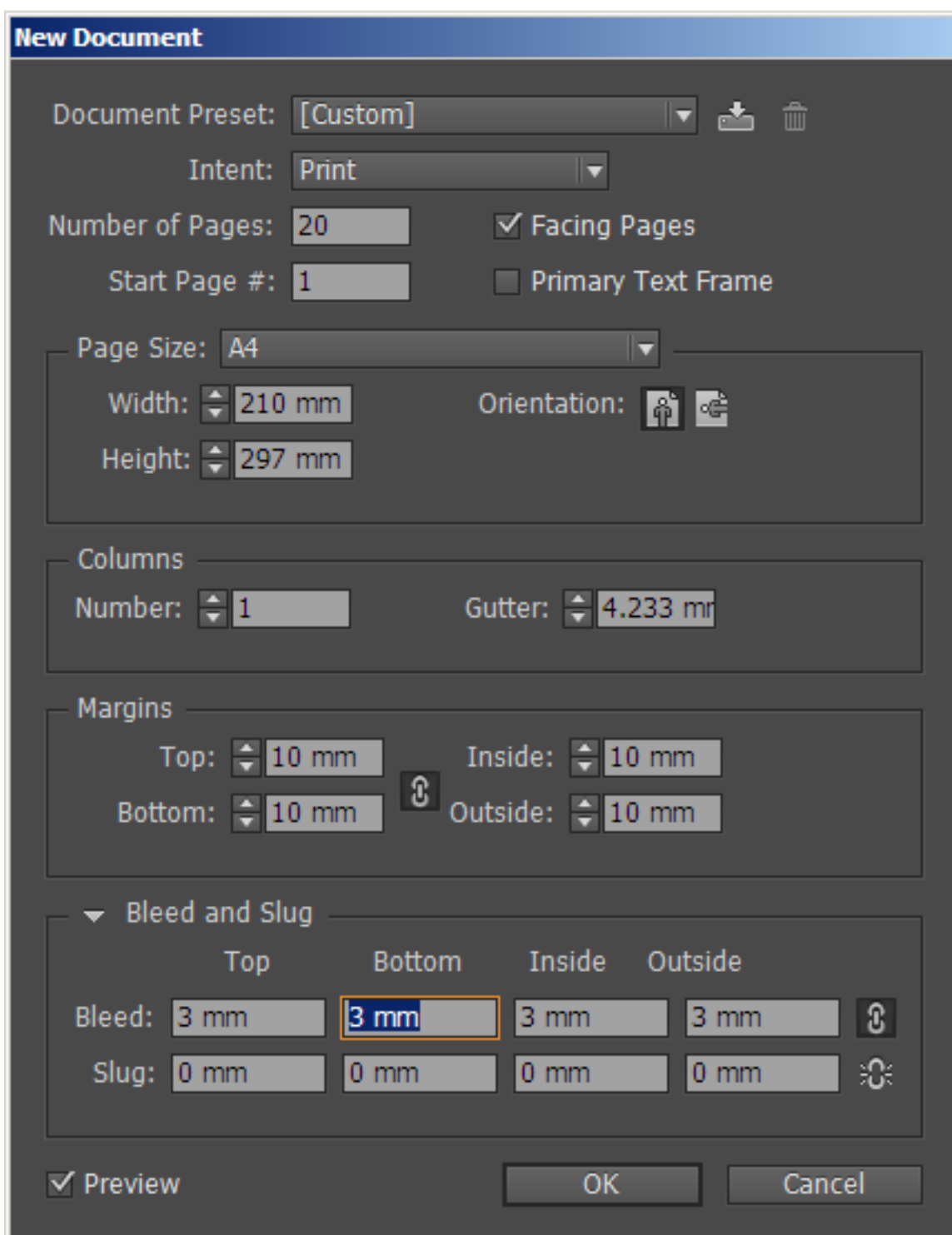
*if I am going to work on a DL flyer artwork, I will create the background image in photoshop, logos and icons in illustrator, then text and layout in either illustrator or indesign to create the final print ready artwork*

## 2. artwork setup guides (indesign)

creating document in indesign

It is essential to get it right from the start, with proper page size, margins and bleed setting, it can make your life much easier down the track! With 3, 5 or 10mm margins depending on artwork requirements and 3mm bleed, you can create your artwork with full bleed (borderless) and all the text will be in a safe position without being cut off

for saddle stitch book, the number of pages must be in a multiple of 4, outside cover and inside cover must be included as a single PDF according to this order p1 front cover - p2 inside front cover - content pages (multiple of 4) - inside back cover - back cover. If cover is printed outside only, please keep the inside cover pages as blank in the PDF, more details can be found in section 3.3



above is an example of Page Size: A4 with 10mm Margins & 3mm Bleed

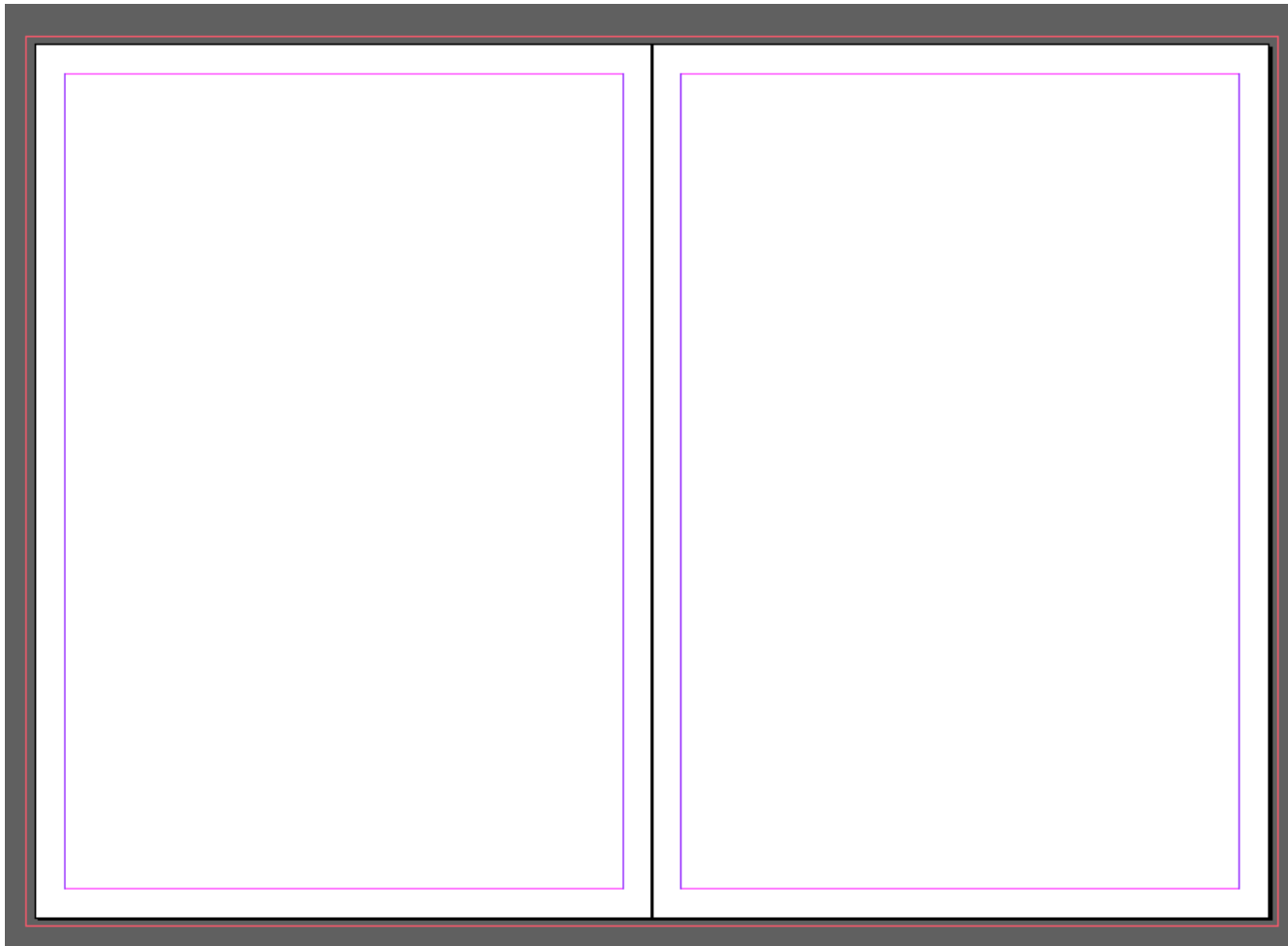
## 2. artwork setup guides

guides definitions

*red line - 3mm bleed box*

*black line - actual document finish size*

*purple line - 10mm margin box (books) 3mm margin (BC/flyer/brochure)*



*the red 3mm bleed box for background and images - meant to be trimmed off in the finished book*

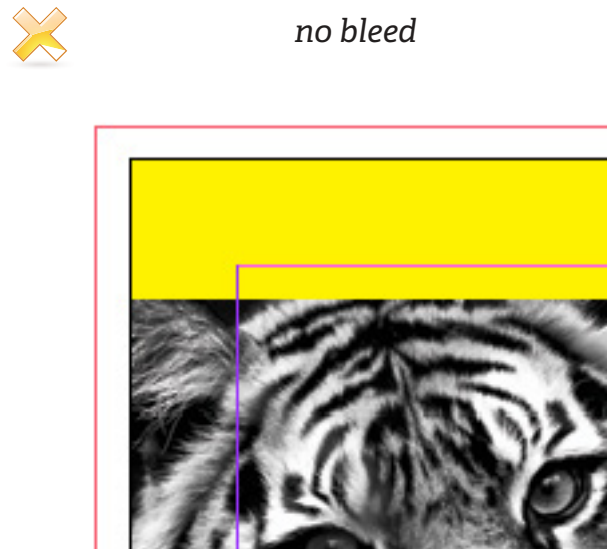
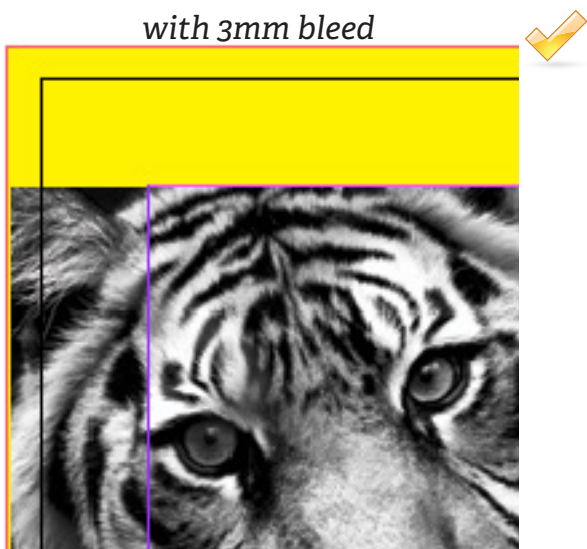
*the black line is the document size box, which indicates where the book should be trimmed to*

*the purple margin is for important information, text and logos - it keeps all the important text and logos inside so that they won't be trimmed off or hidden by the spine*

## 2. artwork setup guides

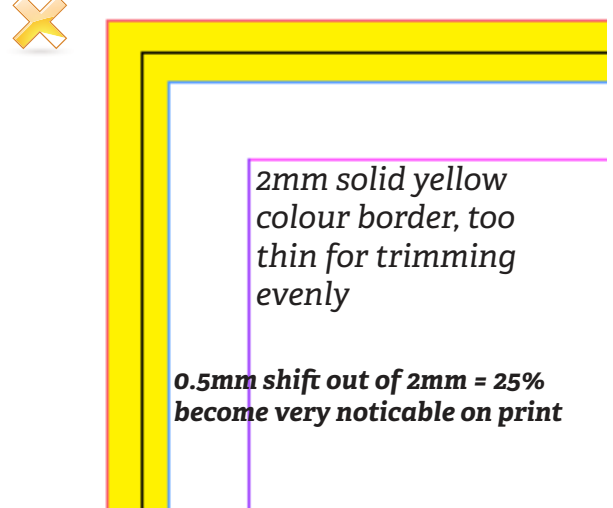
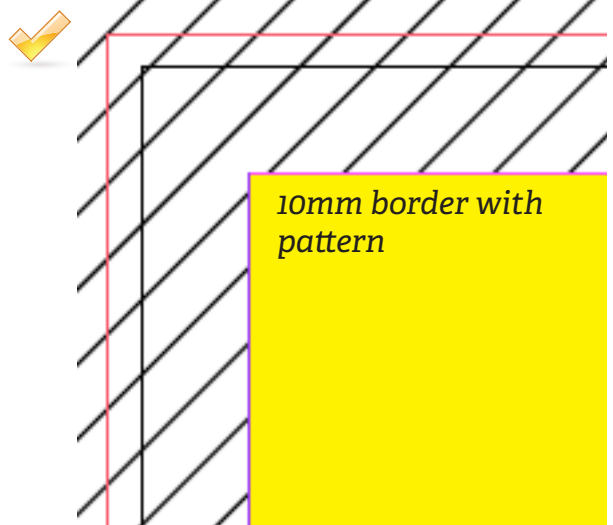
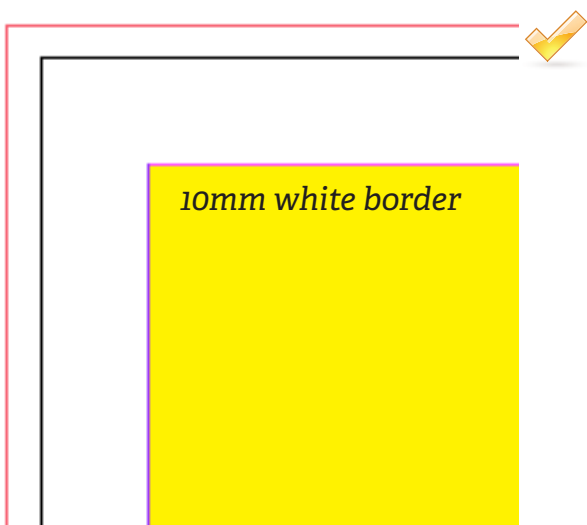
### 2.1 bleed

3mm bleed - background and image should be extended to the red bleed box so that the artwork will be full bleed after trimming



### 2.2 border

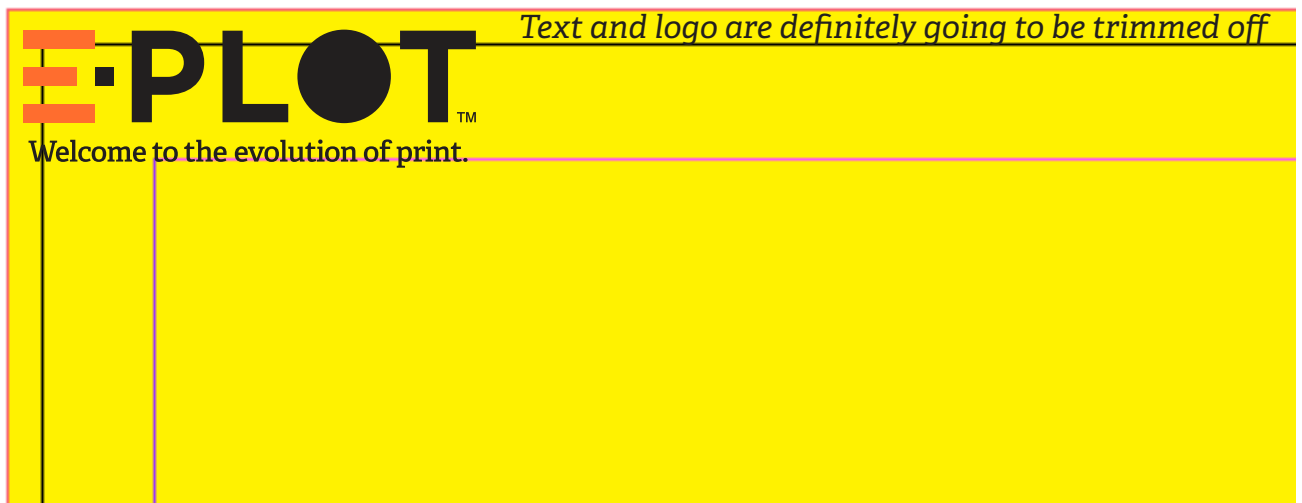
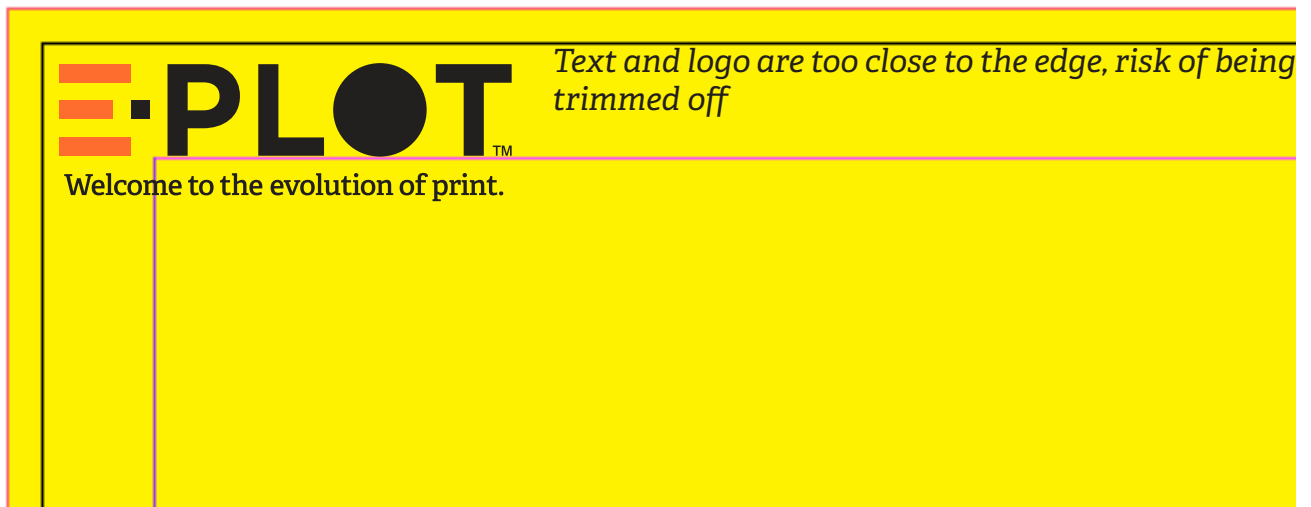
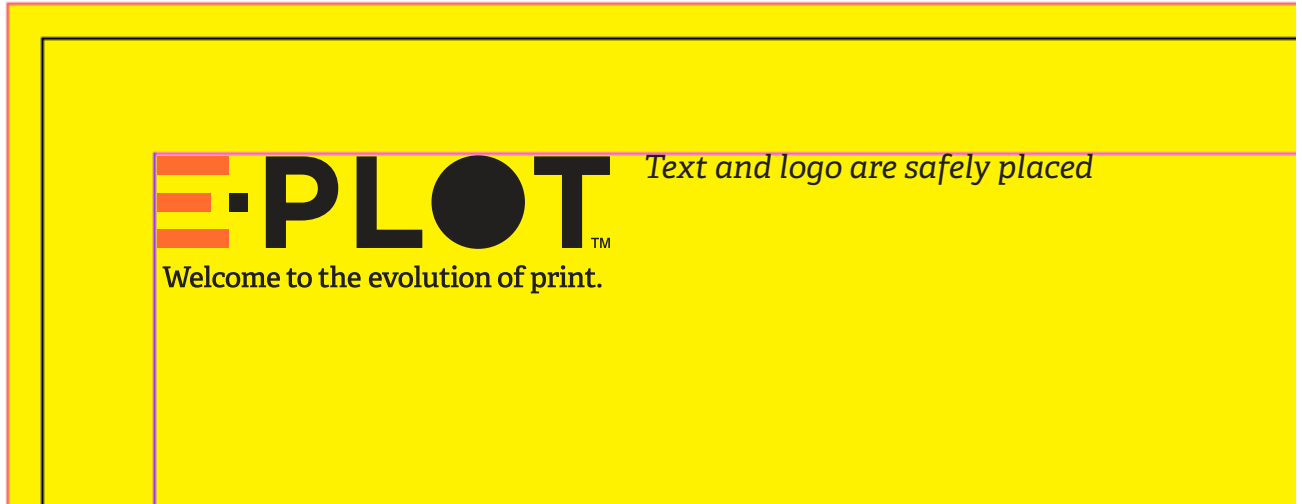
If there is a border in any form, please allow at least 5 - 10mm margin so it won't look uneven after the artwork is trimmed. If it is a solid colour or patterned border, please extend to the red bleed box. 0.5mm shift out of 2mm is 25%, 0.5mm shift out of 10mm is 5%.



## 2. artwork setup guides

### 2.3 margin

Important text and logo should be kept inside the purple margin box to avoid being trimmed off

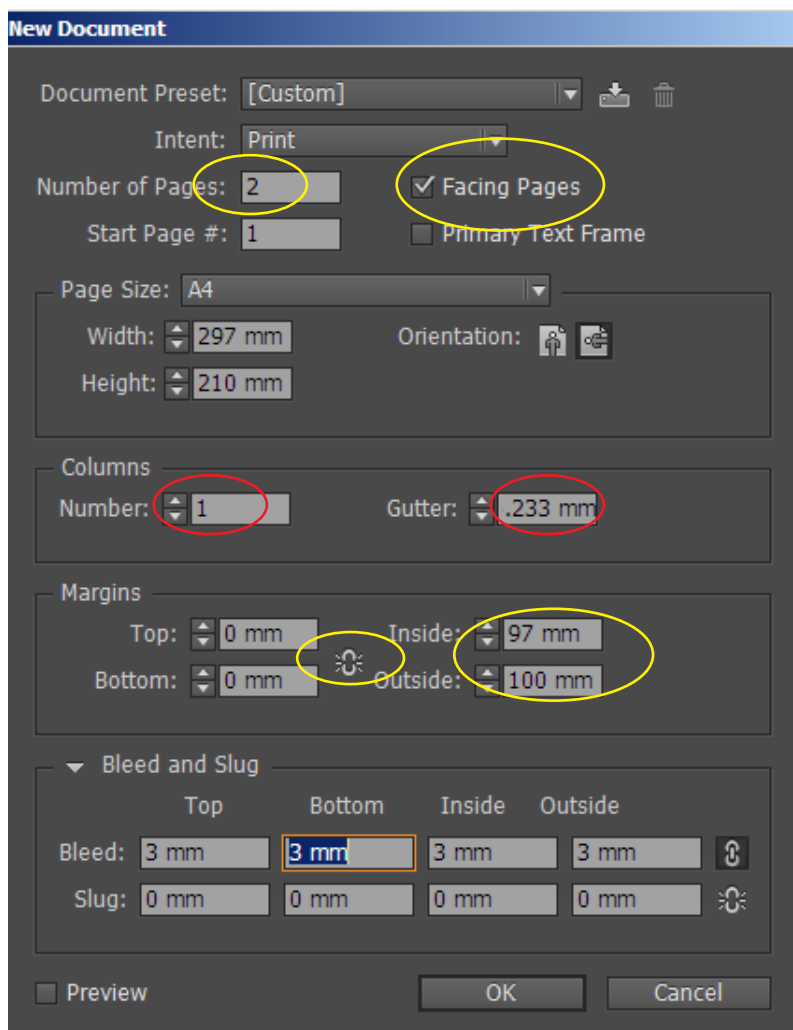


## 2. artwork setup guides

### 2.4 brochure setup

here is an example of a roll fold 6ppDL setup, artwork size is 297x210mm, panel size 97-100-100, you can choose facing pages so that the margin on the page 2 will be flipped, unlink the margins and type in the custom inside and outside margins

if it is a z fold job, set columns as 3 with gutter and margins as 0, then the panels will be equally divided



	back panel after fold	front panel after fold
97	100	100

100	100	97
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### 3. book layout

#### 3.1 perfect bind cover and spine

different paper stocks have different thickness which measured by ums. Even on the same weight in gsm, uncoated stock is generally thicker than coated stock, so please consult with our team on the spine thickness of the specific stock which you are going to print the text on

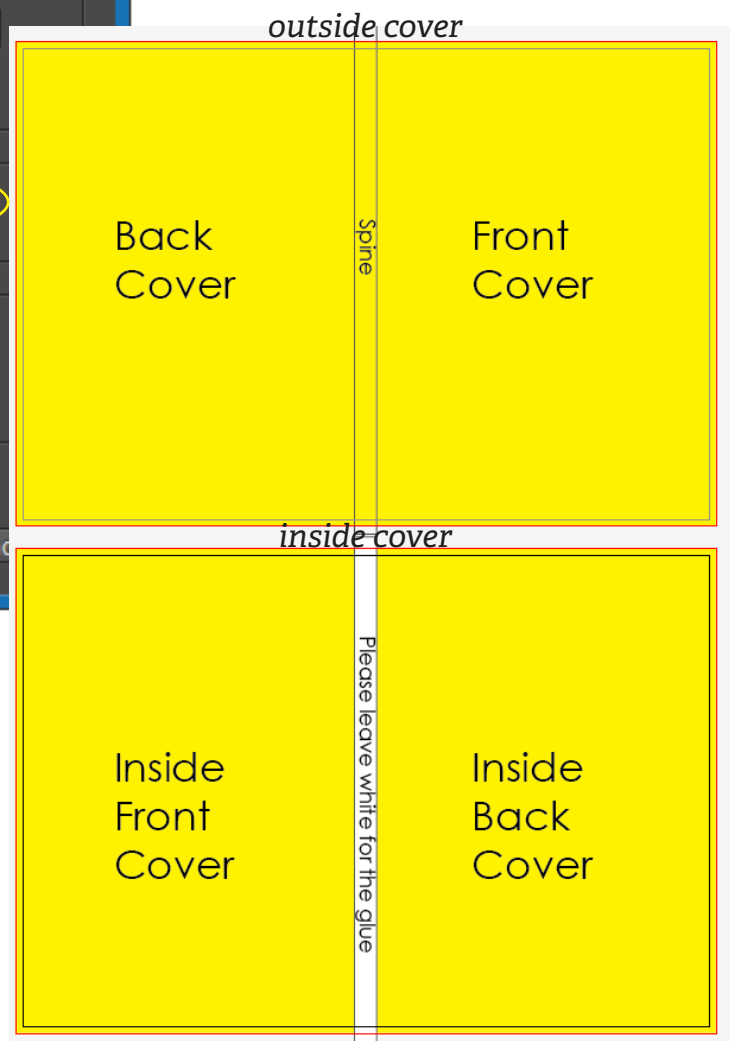
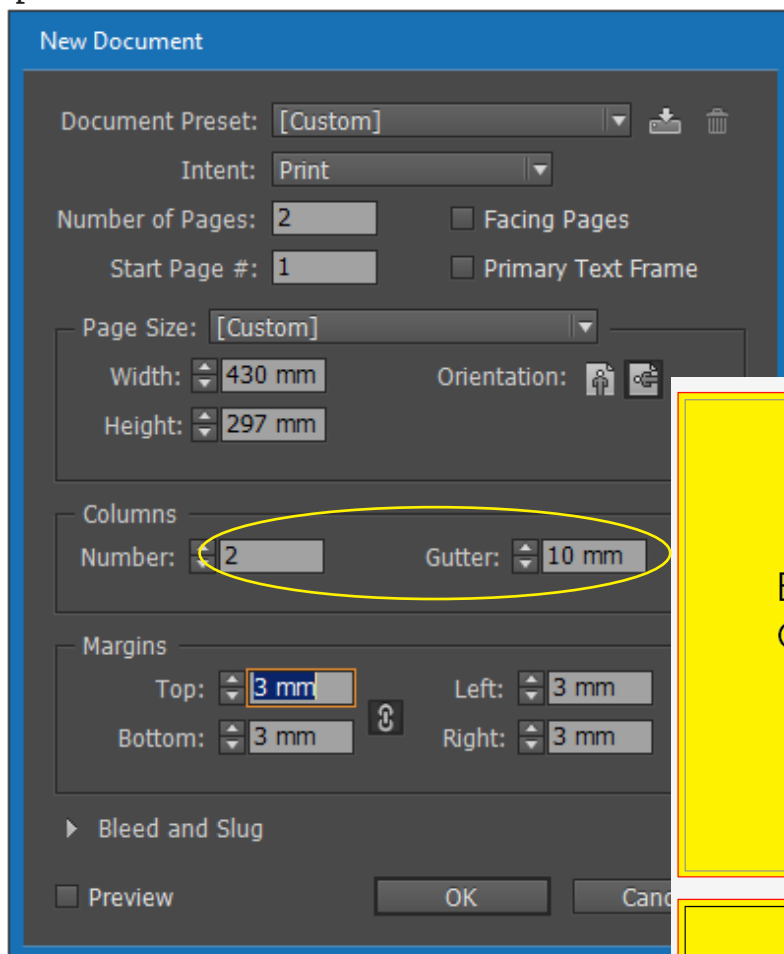
after getting the spine thickness (say 10mm), then you can create your own cover artwork

A4 Portrait =  $210+210+10 = 430 \times 297 \text{mm}$

A5 Portrait =  $148+148+10 = 306 \times 210 \text{mm}$

A5 Landscape =  $210+210+10 = 430 \times 148 \text{mm}$

for any book artworks, if there is a 50 pages pdf printed with 4 page cover. by default p.1 is front cover; p.2 is inside front cover; p.49 is inside back cover; p.50 is outside back cover unless specified otherwise

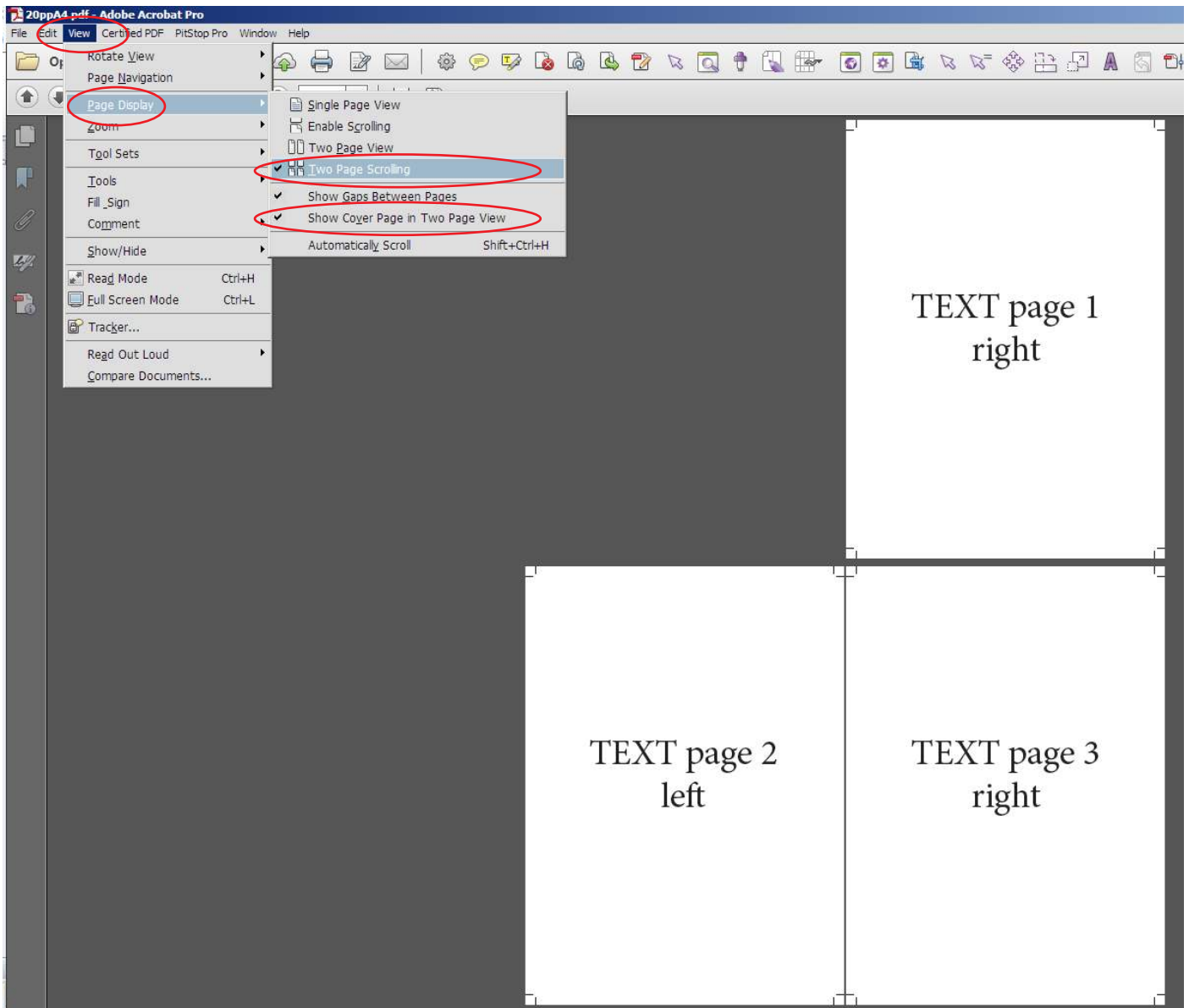


### 3. book layout

#### 3.2 perfect bind text pages layout

from indesign, you can setup different masters and assign to pages for some common features like common background and page numbering

page 1 is always on the right hand side of the book. Even if you design the book in spread view, when generating a pdf for printing, always output as single page document. To ensure the spread is output in the correct order, you can check the pdf in the two page view

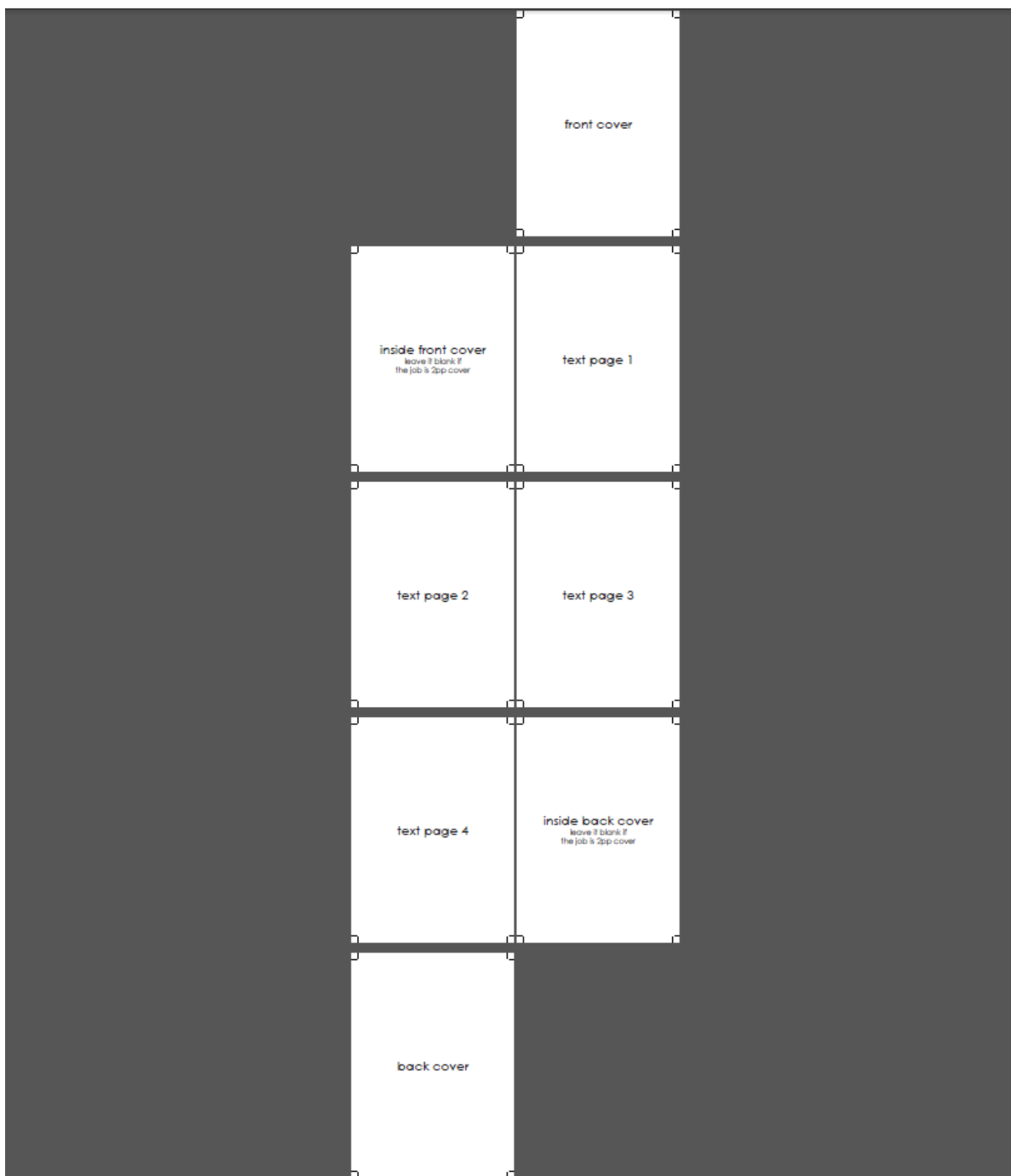


### 3. book layout

#### 3.3 saddle stitch cover and text

for saddle stitch book setup, since one sheet of paper is equal to 4 printed pages (pp), it has to be in a multiple of 4 pages, even if the cover is printed outside only, a blank page has to be present when you set up the artwork

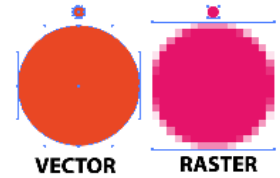
when submitting the artwork for printing, cover and text should be send together in a single pdf, below is an example of a 8pp saddle stitch artwork



## 4. faq in artwork

### 4.1 vector & raster graphics

vector graphic (illustrator / indesign)



is made up from lines and curves known as paths to create an image, are rooted in mathematical theory, which can be sized and scaled repeatedly and limitlessly without losing resolution. Because the files are only identified by mathematical descriptions, files are often much smaller than those of the raster counterparts

raster images (photoshop)

is composed of millions of tiny squares called pixels, if you zoom in enough, you will be able to see the square outlines of each pixel, especially on the edges. Higher dpi (dots per inch) settings (eg 300dpi) will contribute to larger files because software must keep track of and be able to render each pixel for the required resolution. With a lower dpi setting (eg 75dpi) pixelation will occur and the image will become blurry. The minimum dpi set for printing with acceptable print quality is 150 to 200dpi of actual size



### 4.2 overprint issue

overprint refers to the process of printing one colour on top of another in reprographics, it is usually used in knock out trapping issue or special effect like use of white ink or sandwich printing. However, overprinting of a vector graphic sometimes will contribute to an unexpected print result

for example, white text not printed on a background. if the overprint is on for the white text, the printer will interpret this as printing the background colour first and then printing the white text (which is no colour value). The printer does the job as specified from the artwork but the result is not what you wanted

to turn off overprint setting:

overprint fill and stroke can be switch on and off from

(indesign) window>output>attribute

(illustrator) window>attribute



### 4.3 spot colour / pantone

spot colour is a standardized color reproduction system. Different manufacturers in different locations can all refer to the Pantone system to make sure colours match the same standard by mixing different ink in a specific formula. It is usually used for company logos and corporate colours to ensure all the printed materials match the same colour

However, with the advance capabilities of digital printing, mixing pantone colour is no longer competitive, it would be more expensive just to mix the ink then printing the whole job in CMYK

there are various pantone books in the market. The most commonly used one is pantone solid coated, as every equipment in the printing industry is trying to match that standard. All the production grade printers have their own pantone matching system built-in to mix the 4 colours of CMYK to produce the best colour match of pantone book

## **4. faq in artwork**

### **4.4 special effects**

when creating special effects to an artwork, it is advised to use illustrator for vector graphics and photoshop for raster graphics

### **4.5 special fonts used**

if you are using a special font which is downloaded from various font websites, it is likely the font will not be printed or even displayed correctly with a computer without the font installed. Please outline the special font by type>create outline

NOTE: always save a backup copy before outline font in case you need to make any changes later on.

### **4.6 missing links from indesign**

missing links from indesign will result in low resolution print, as indesign will only output thumbnail quality pdf if the links are missing. It usually happens when you have updated or moved the source file to a different location. Please make sure all the links are updated before generating pdf for printing

### **4.7 large file size**

indesign is a layout application, it is designed for putting together links from ai, pdf, psd, jpg and text with formatting to making up a book. However, it stores the source in their original format and size, and if there are too many links and the sources are not controlled properly, it will use up the computer's memory and everything will become very slow. Here are some suggestions to optimise the efficiency without losing the print quality.

- a. setup the source to 1:1 size and a maximum of 300dpi from photoshop for raster image  
Rendering images are usually large in size, it contains more information than required when you place them into the little frame in indesign
- b. rasterize complex architectural renderings in illustrator or photoshop to images  
architectural rendering sometimes contains million of lines and they take quite a lot of memory, it is better convert them to images first before placing them into indesign
- c. choose press quality when generating PDF, it compress excess information to optimise artwork size and print quality

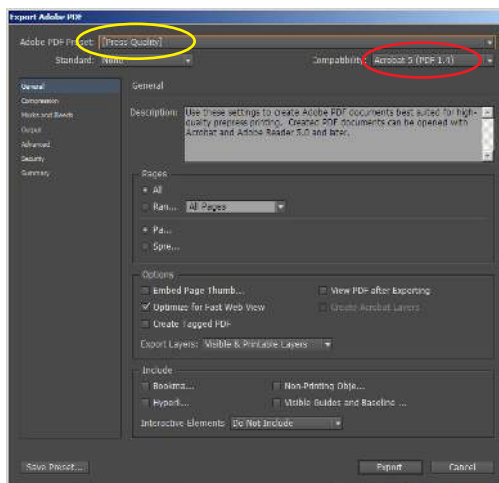
### **4.8 variable data printing VDP**

when creating artwork for VDP, there are a few essential materials that need to be submitted separately. We can even vary different background/images according to the excel

1. complete sample in pdf format
2. excel database in csv format with all variable data (spacing and case must be exact)
3. all the background/images to be varied (all the same variables must set as exactly same size)
4. note: if background/images need to be variable, the entries in csv must be matching with the file name

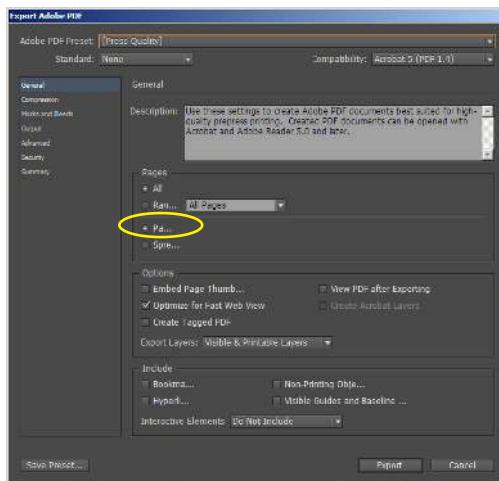
## 5. creating a press ready PDF - save as (illustrator) export (indesign)

producing a press ready PDF for printing can save you money, time and headache, it can eliminate the prepress work done on your artwork which may result in distortion of the original artwork. A press ready PDF also increases the efficiency of your print job

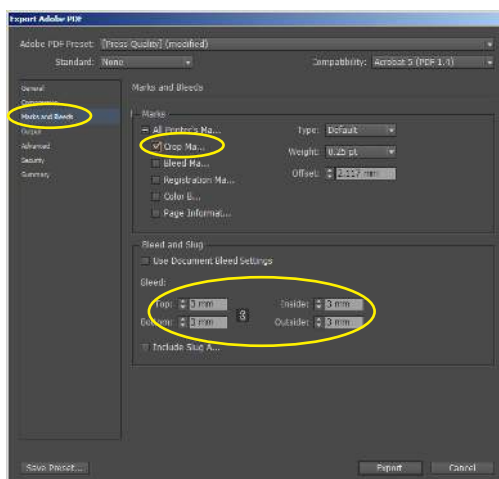


step 1:  
select press quality in adobe PDF preset, it will reduce excess image resolution to printing standard and produce pdf with optimum file size

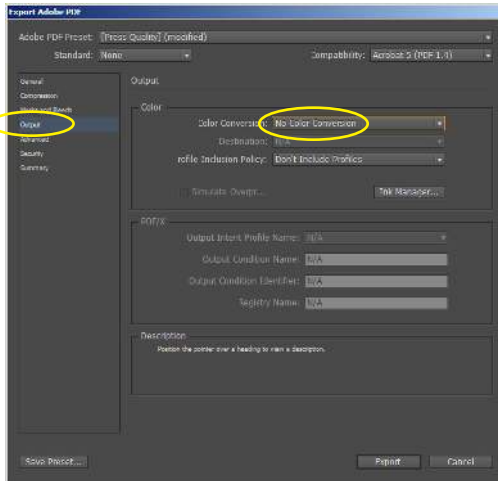
note: if your artwork has complex special effects, we strongly advise to choose Compatibility: Acrobat 4 (PDF 1.3)



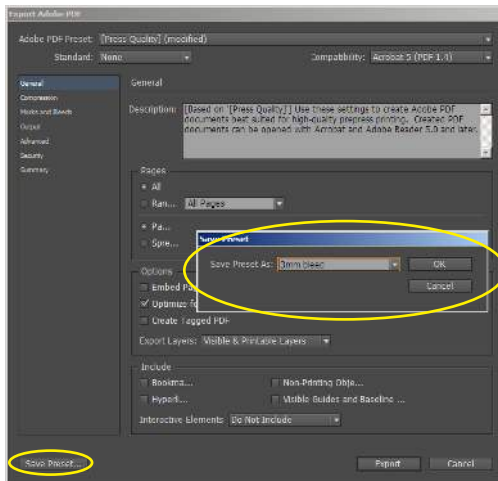
step 2:  
under pages  
make sure pages is selected instead of spread



step 3:  
under marks and bleed section  
tick crop marks and type "3mm" in bleed settings for all (top, bottom, inside & outside)



step 4:  
under output section  
choose no color conversion so that you  
don't include any color profile in the  
pdf and result in a different color to  
the original design



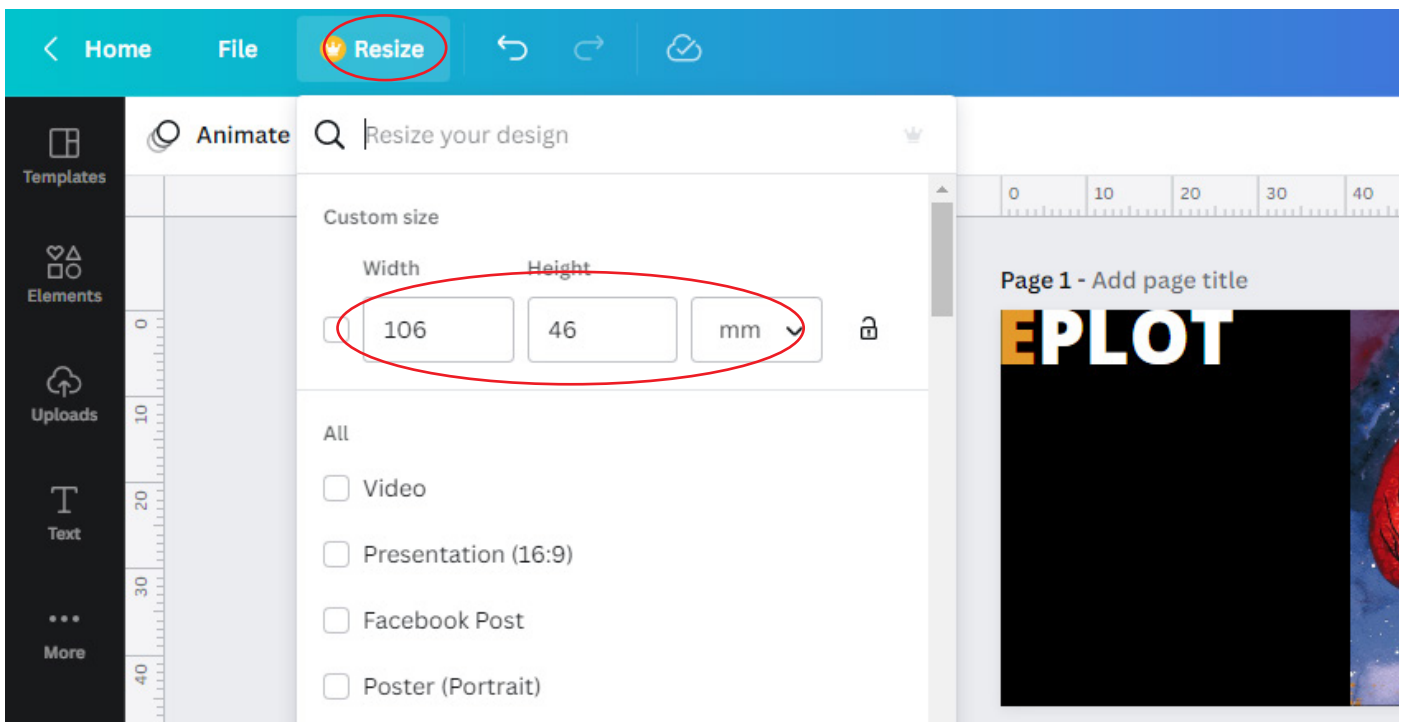
step 5:  
you can save preset from the bottom  
left hand corner for future use

## 6. canva tutorial

the concept is pretty much the same for canva, you have to sort out artwork size, margin and bleed for the design, then design the artwork and finally generate the pdf for printing

### 6.1 artwork template & size

there are millions of templates in canva, some are free while some need to sign up for canva pro, whichever way you do, you need to make sure you are working on the correct size. Always check if you are setting up the correct size (in mm) for the job, please refer to 1.1 standard sizes guide. You can either pick the right size or change to a custom size if you sign up to canva pro

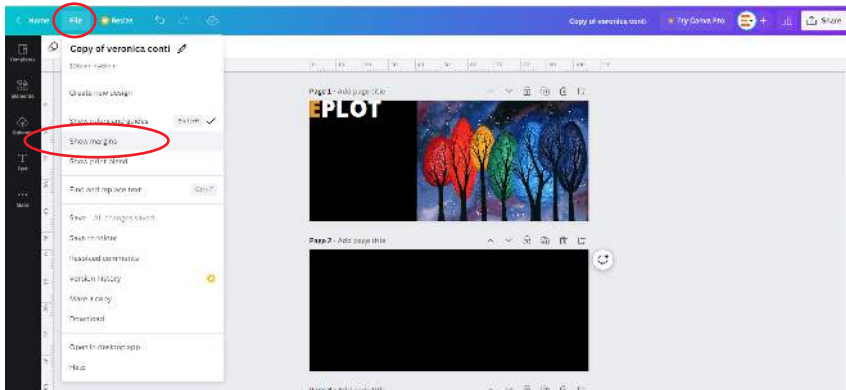




## 6.2 set margin

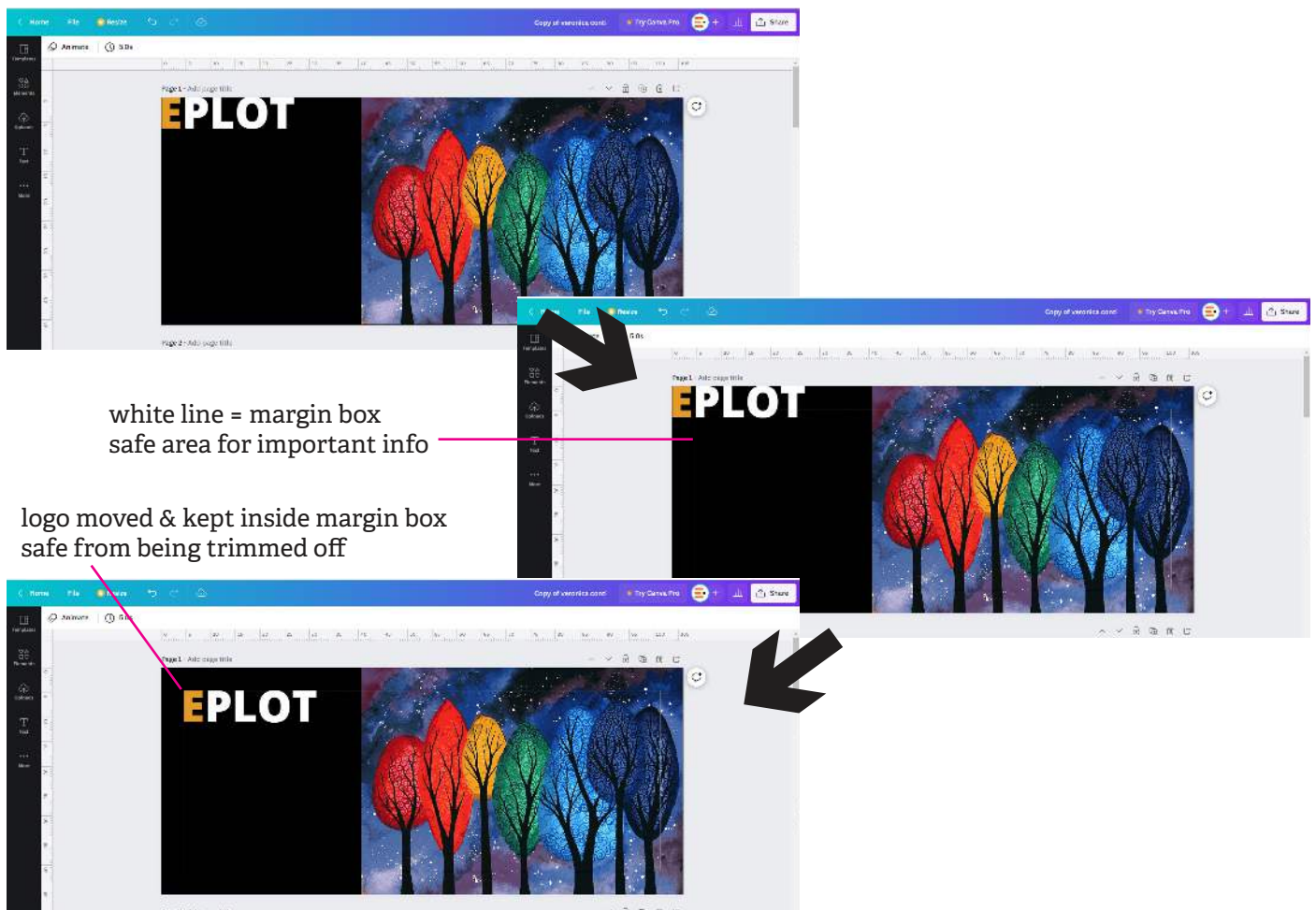
before actually design anything, it is always a good habit to set margin first, it can prevent you to put any import content or text too close to the edge which risking to be trimmed off, please refer the explanation of margin in 2.3 margin

### activate margin



### margin activated

white margin line (which will not get printed) showed as guideline - important text and images should stay within the margin box



white line = margin box  
safe area for important info

logo moved & kept inside margin box  
safe from being trimmed off

### 6.3 create bleed

after setup margin, we have to activate bleed, you need to extend the background and images that you want to print and trim right on the edge, please refer the explanation of bleed in 2.2 bleed

#### show print bleed



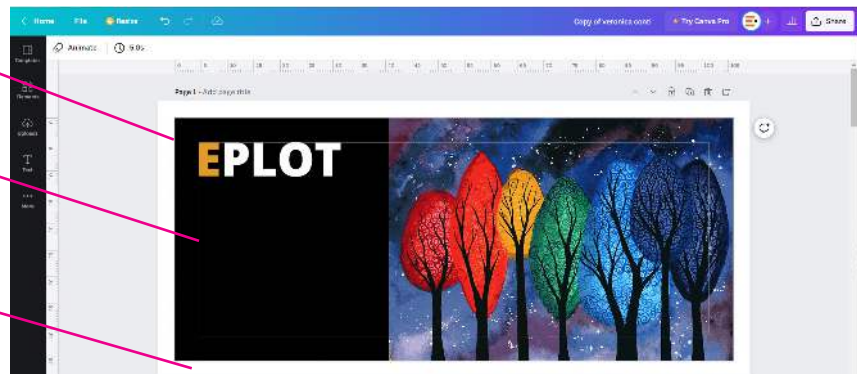
#### activated show print bleed

additional white line outside margin is trim box, which indicate the final trim on print, white area outside the trim box to be filled with extended background / extended image that intended to be trimmed off, if there is a head right in the middle of the trim box, unfortunately, half of the head will be trimmed off

outer white line = trim box  
show where the trim is

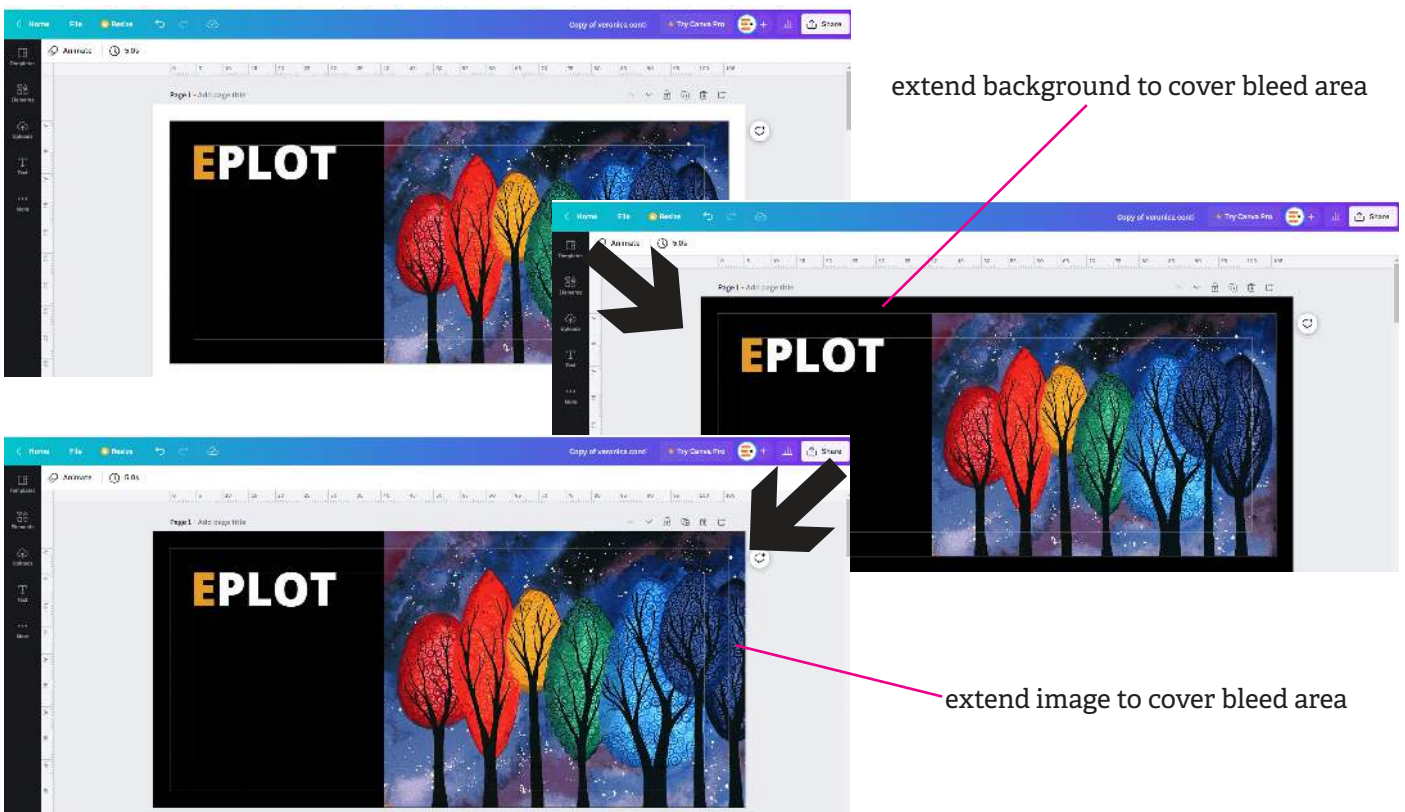
inner white line = margin box  
safe area for important info

bleed area, extend background and images to cover the area, meant to be trimmed off so the finished card print right to the edge



#### bleed creation

All white area has been filled with background and extended image



extend background to cover bleed area

extend image to cover bleed area

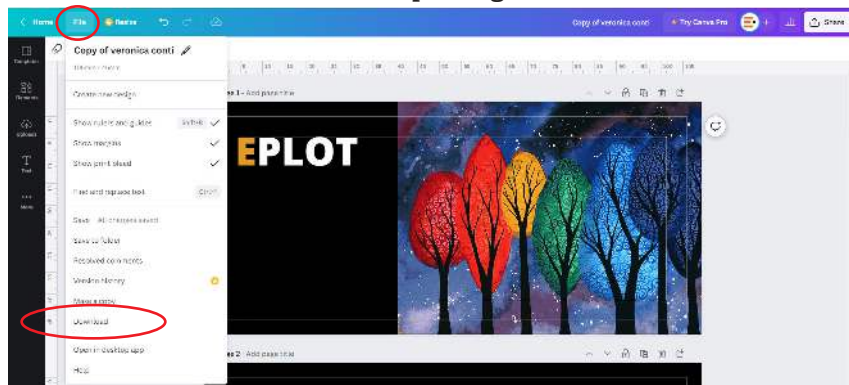


## 6.4 create pdf for print

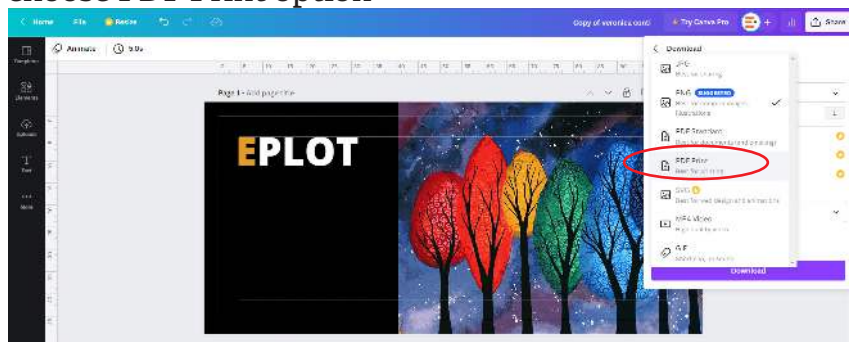
once you have sort out margin, bleed and design, it is time to create pdf for print, instead of using the term “export” in adobe software, canva name it as “download”

### export to PDF for print (download)

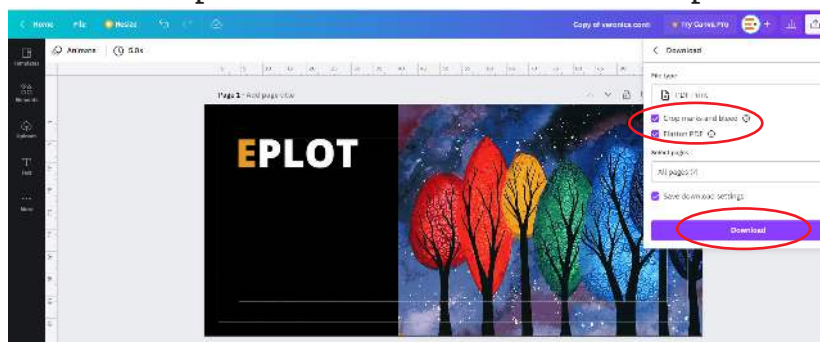
download is the command for exporting in canva



### choose PDF Print option



tick both crop marks and bleed & flatten PDF options and hit download to save the pdf for print



*\*\*\*prepress will sometimes request a pdf without flattening if any adjustment required, in that case, please untick flattening and download pdf again upon requested*

### Print ready pdf created

with correct size, bleed, trim marks and proper margin



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Welcome to the evolution of print.