



Step 1 – Set up your workspace

1. Create a new document 12x12inch 300dpi
2. On a new layer create a square 6x6 inches. (use the rectangular marquee tool) M
 - a. Fill it with grey at approx. 20% opacity
 - b. Rotate it to make a diamond.
 - c. Centre it.
3. Drag in your icons onto your document.

Step 2 – Create a pattern tile

1. On a new layer arrange your icons to create your pattern inside the diamond. It can go slightly over the edges.

Step 3 – Smart Objects

1. Hide or delete your guide – it's no longer required
2. Group your pattern tile layers
3. Right-click the group & select “**Convert to Smart Object**”
4. Double click to open, view & edit the pattern tile group (you can do this anytime throughout the process).
5. Create a duplicate of the smart object, rename it to **bottom middle**, then select **Filter --> Other --> Offset**
6. Enter 0 for horizontal and enter a positive (+) number for vertical to align the tile vertically down the page. It should sit just under the main tile. If working with a 12x12 inch page, this is usually around +2500px. Use the slider to get it in a position you like and make sure it's an **even** number. **Write this number down (V = xxxx).**

7. Duplicate the last layer
 - a. rename it to **top middle**
 - b. double click on the offset
 - c. change the vertical to negative (eg. --2500) to place it at the top of the page
8. Duplicate the **bottom middle** layer
 - a. rename it to **bottom right**
 - b. double click on the offset
 - c. Enter a number in the vertical field that is half of the number you write down in step 6.
 - d. Use the slider to adjust the horizontal number and to move the tile to the right-hand corner. **Write this number down (H = xxxx).**
9. Duplicate the **bottom middle** layer
 - a. Rename it to **bottom left**
 - b. Double click on the offset
 - c. Change the horizontal number to a negative
10. Duplicate the **bottom left** layer
 - a. Rename it to **top left**
 - b. Double click on the offset
 - c. Change the vertical number to a negative
11. Duplicate the **bottom right** layer
 - a. Rename it to **top right**
 - b. Double click on the offset
 - c. Change the vertical number to a negative
12. Duplicate the **Middle** layer
 - a. Rename it to **Middle Right**
 - b. Select **Filter --> Offset**
 - c. Change the Horizontal number to the horizontal number you wrote down in step 8d and times it by 2. So if you wrote down 1455, you would enter 2910 in the horizontal field
 - d. Enter 0 in the Vertical field.
13. Duplicate the **Middle** layer again
 - a. Rename it to **Middle Left**
 - b. Select **Filter --> Offset**
 - c. Change the horizontal number to a negative to move to the left side of the page
14. Use the middle layer/smart object to adjust any layers or fill in gaps (double-click to edit)

Step 4 – Extracting a Repeat Pattern Tile

1. Group all your smart object layers and rename to “**original**”
2. Duplicate the group then hide the original group
3. Merge the new group and keep selected
4. Click on the Rectangular Marquee Tool
5. Select Fixed Size
6. Double the horizontal number you wrote down and enter it in the width field
7. Enter the vertical number you wrote down in the height field
8. Click on your design & move it to a position you are happy with
9. Go to Edit --> Define pattern and give it a name.
10. Copy the area by going to Edit --> Copy (or cmd C)
11. Create a new document. File --> New and use the dimensions it has defaulted to
12. Paste the repeat area in by going to Edit --> Paste (or cmd v)
13. Save this as a jpg
14. (or any other file format you require). This is your repeating pattern file.
15. Save original file