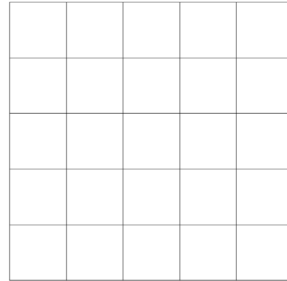
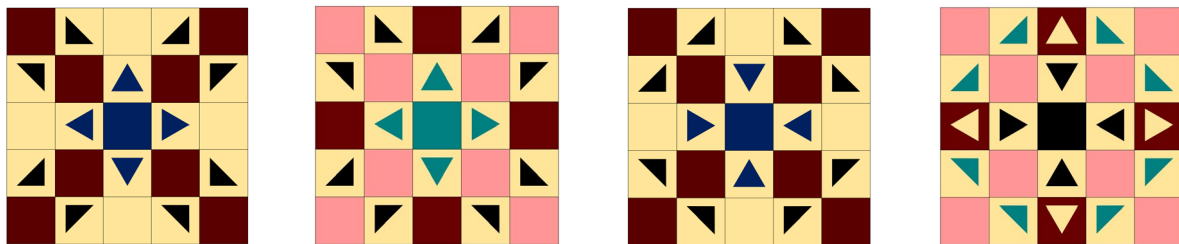


Maths Reasoning Event – Autumn 1
Native American Art and Maths

Shepherds Class explored different the many different ways that traditional Native American Patterns can be created using various grids on a word document.



For example, each individual square within a 5 x 5 grid can be coloured quite efficiently using the fill-in function to produce interesting ethnic designs.



There is quite an extensive paint pallet from which to choose suitable Native American colours. However, every possible colour or hue has an "RGB code". All the colours in the visible spectrum can be synthesised by combining just the right amounts of red, green and blue. The amount of each of these primary colours can vary within the range 0-255. A zero for red simply means no red, whereas 255 means the maximum amount of red.

R=255, G=150, B=150 represents salmon pink.

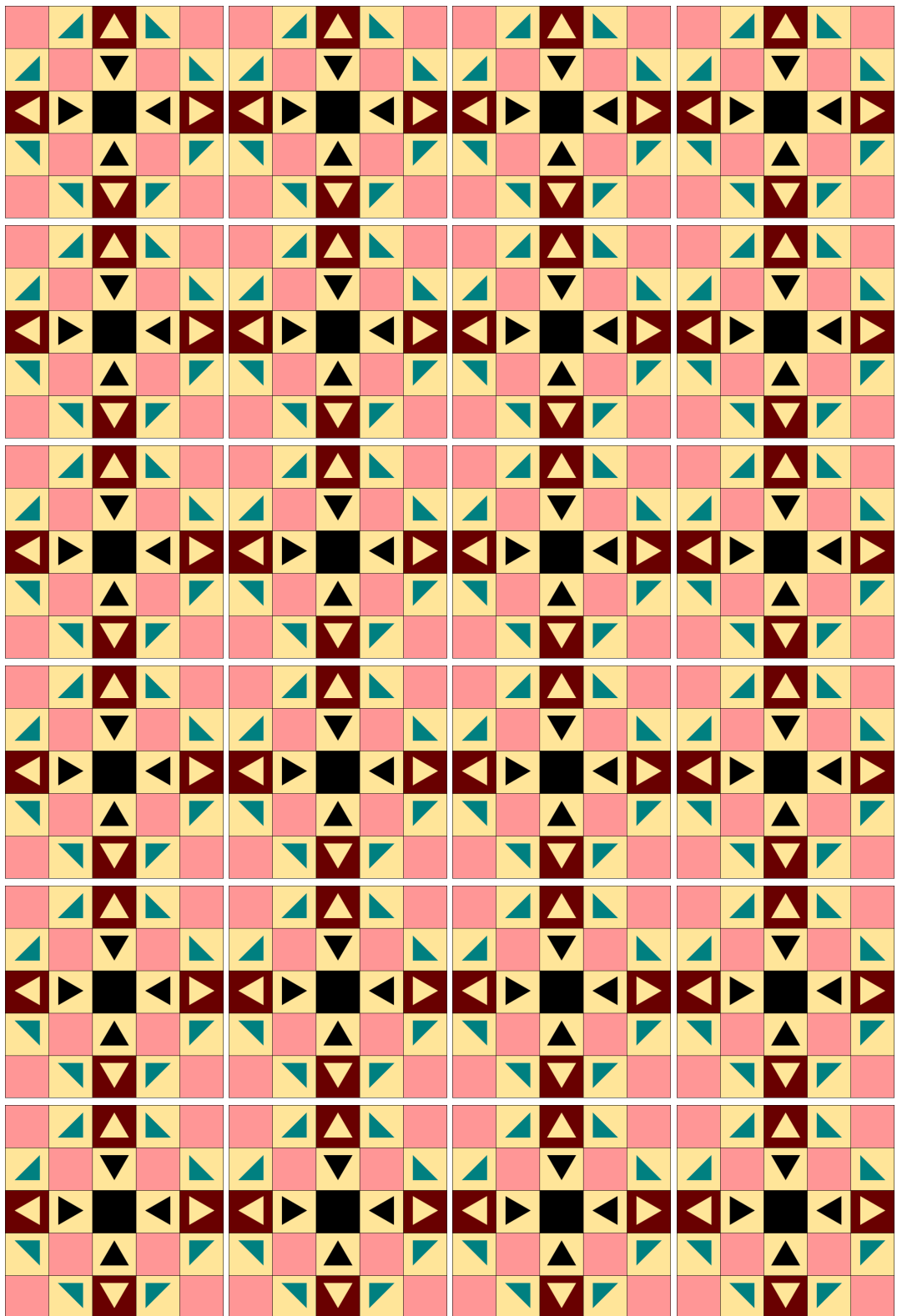
R=105, G=0, B=0 represents a deep burgundy.

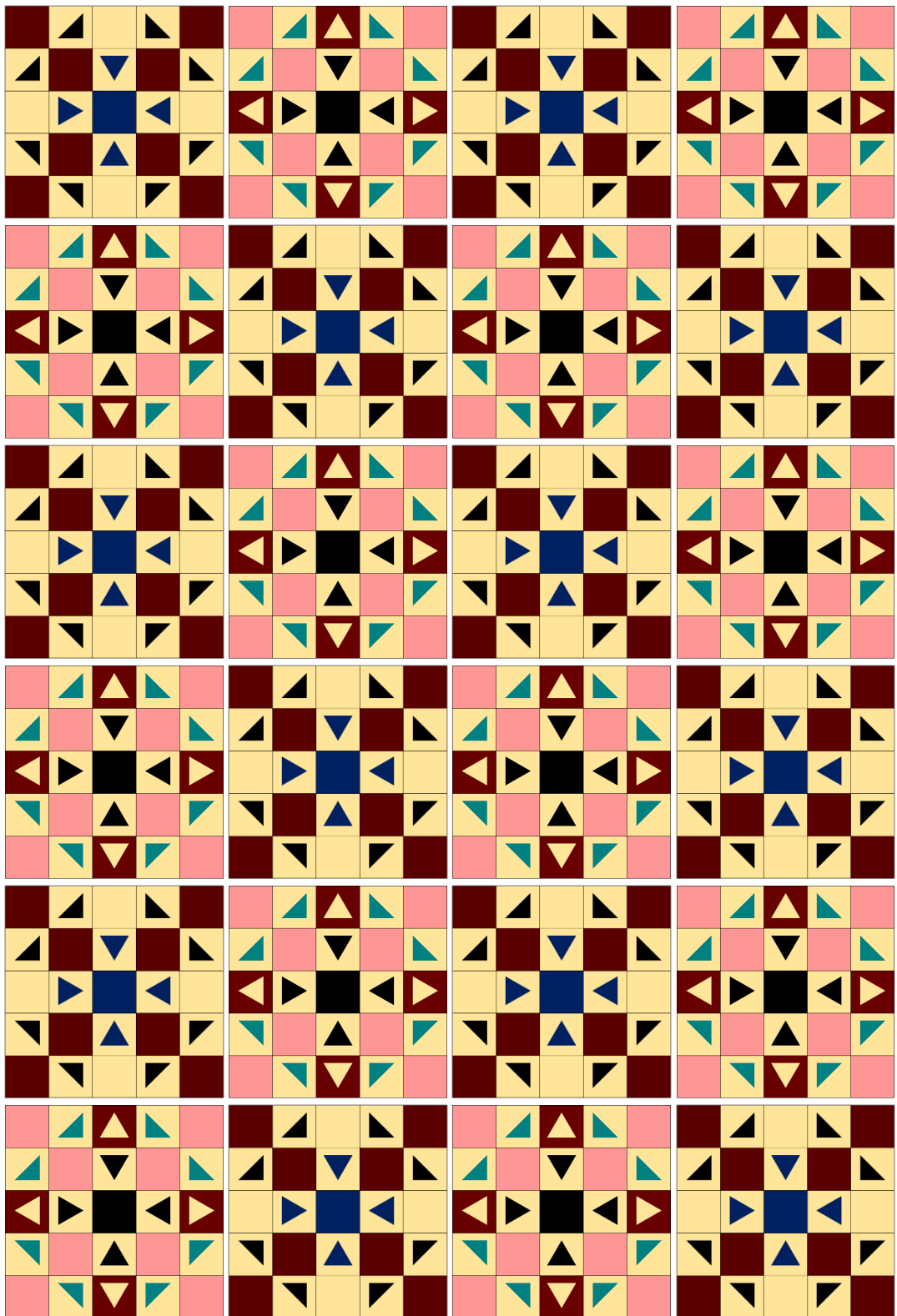
R=0, G=128, B=128 gives a really nice teal colour.

R=0, G=0, B=0 represents black...the absence of colour.

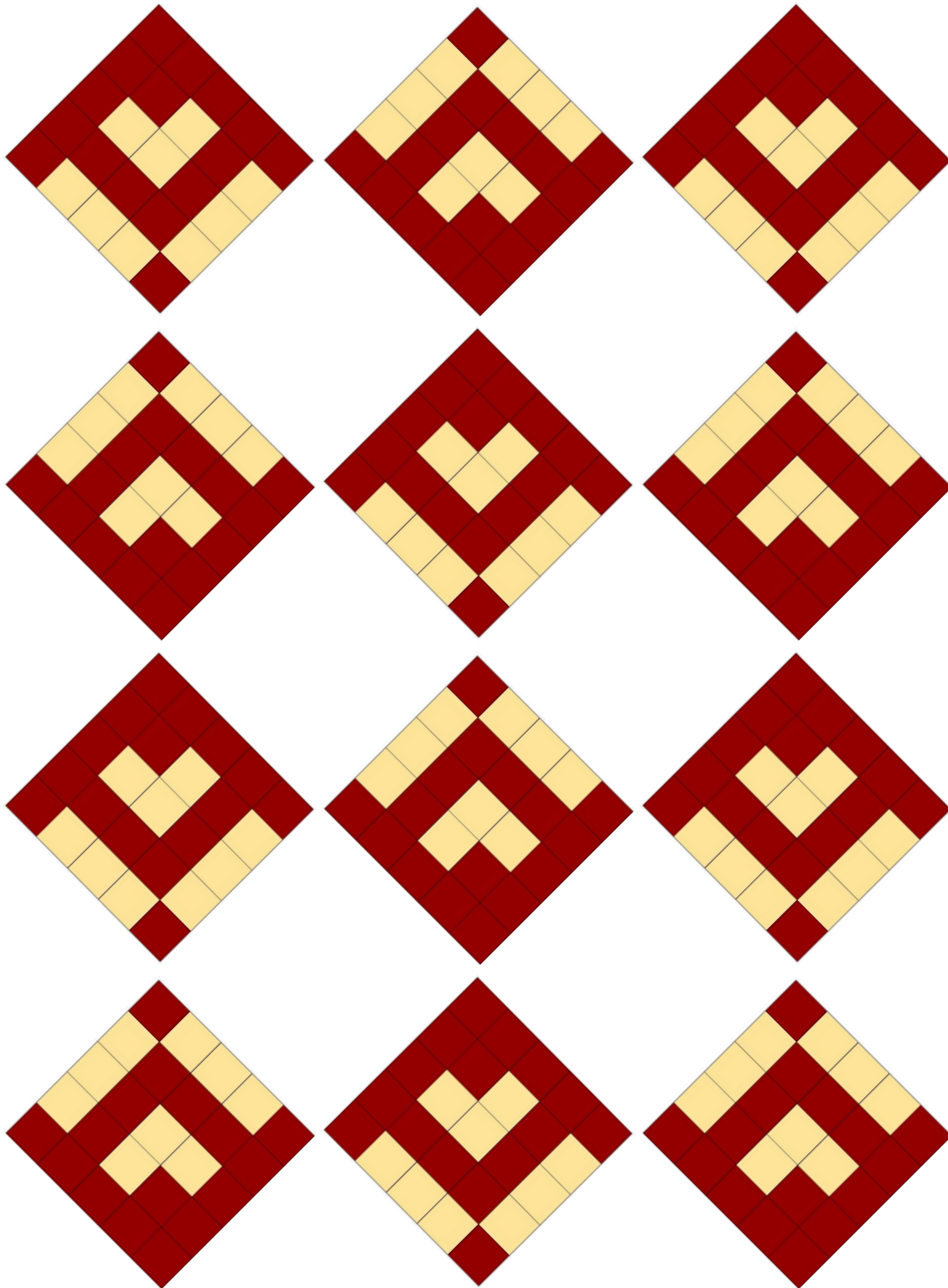
Shepherds pupils experimented with the RGB codes to good effect.

Using the snipping tool, a screen capture of the pattern can be saved (as a JPEG image) and then copied onto a word document. It can then be resized and duplicated to produce a repeating Native American Quilt design...

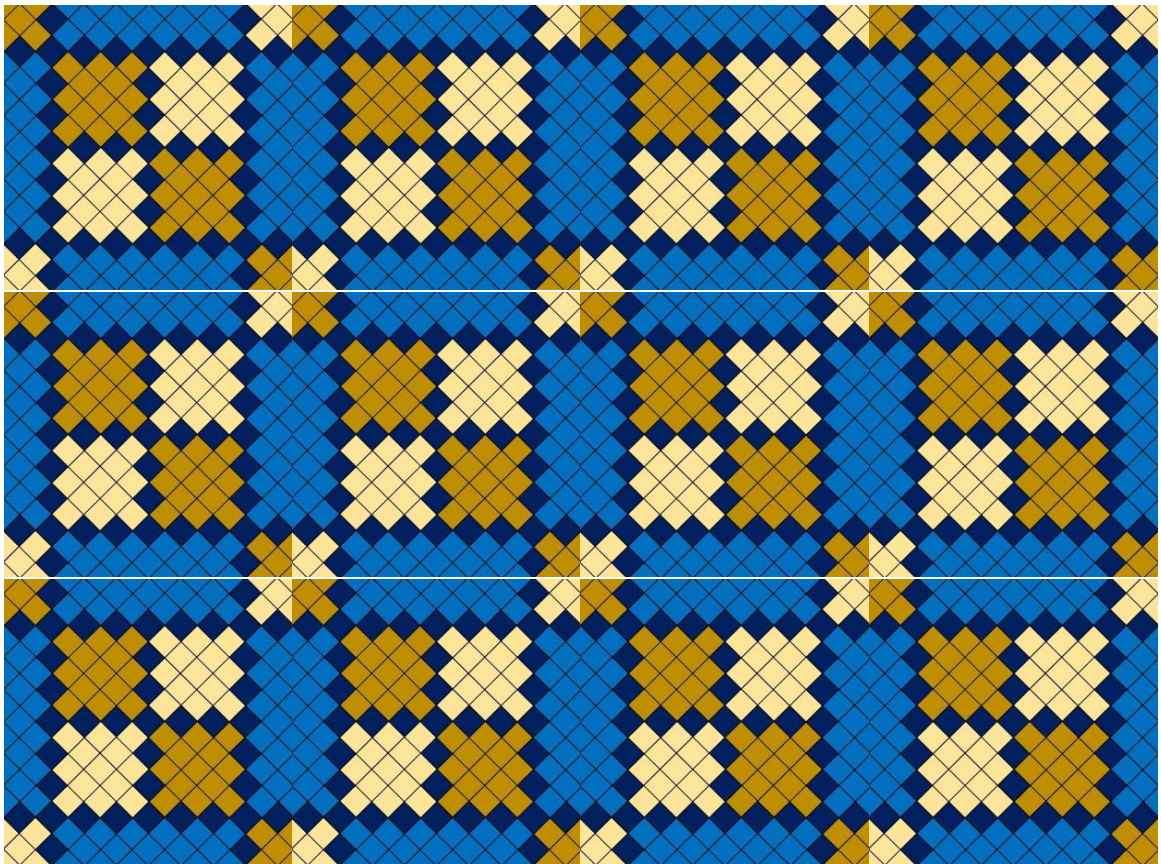
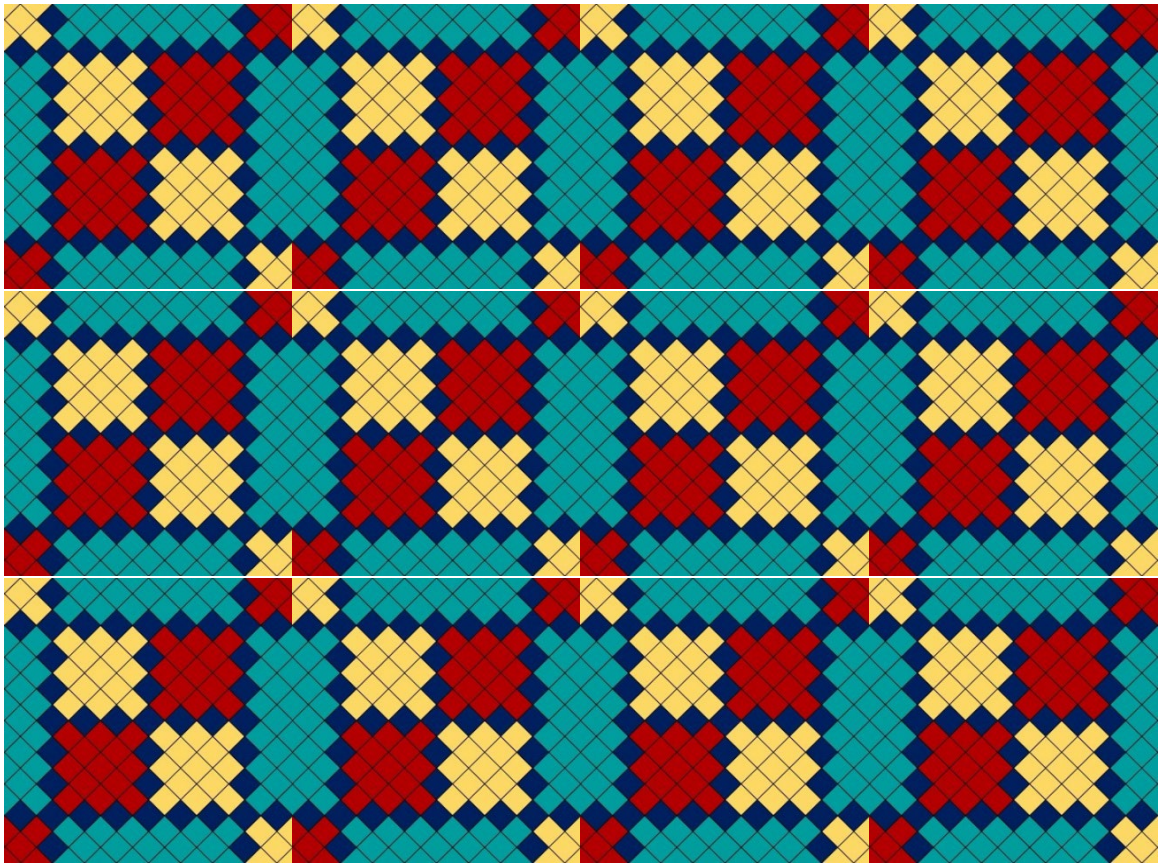




It is also relatively easy to rotate a chosen pattern, by 45° , for example, then repeat it.

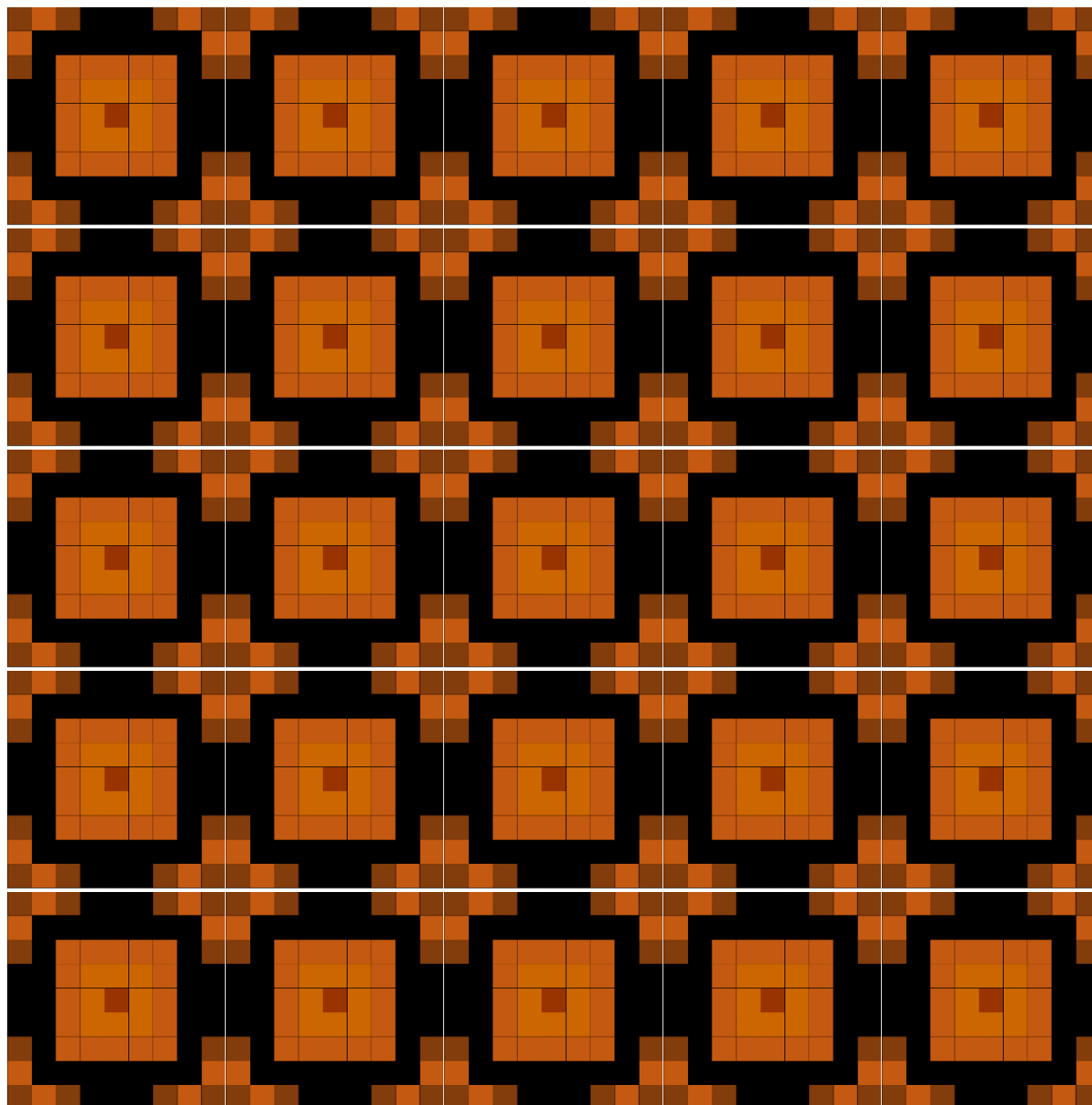


And, with larger grids, more complicated designs can be created...

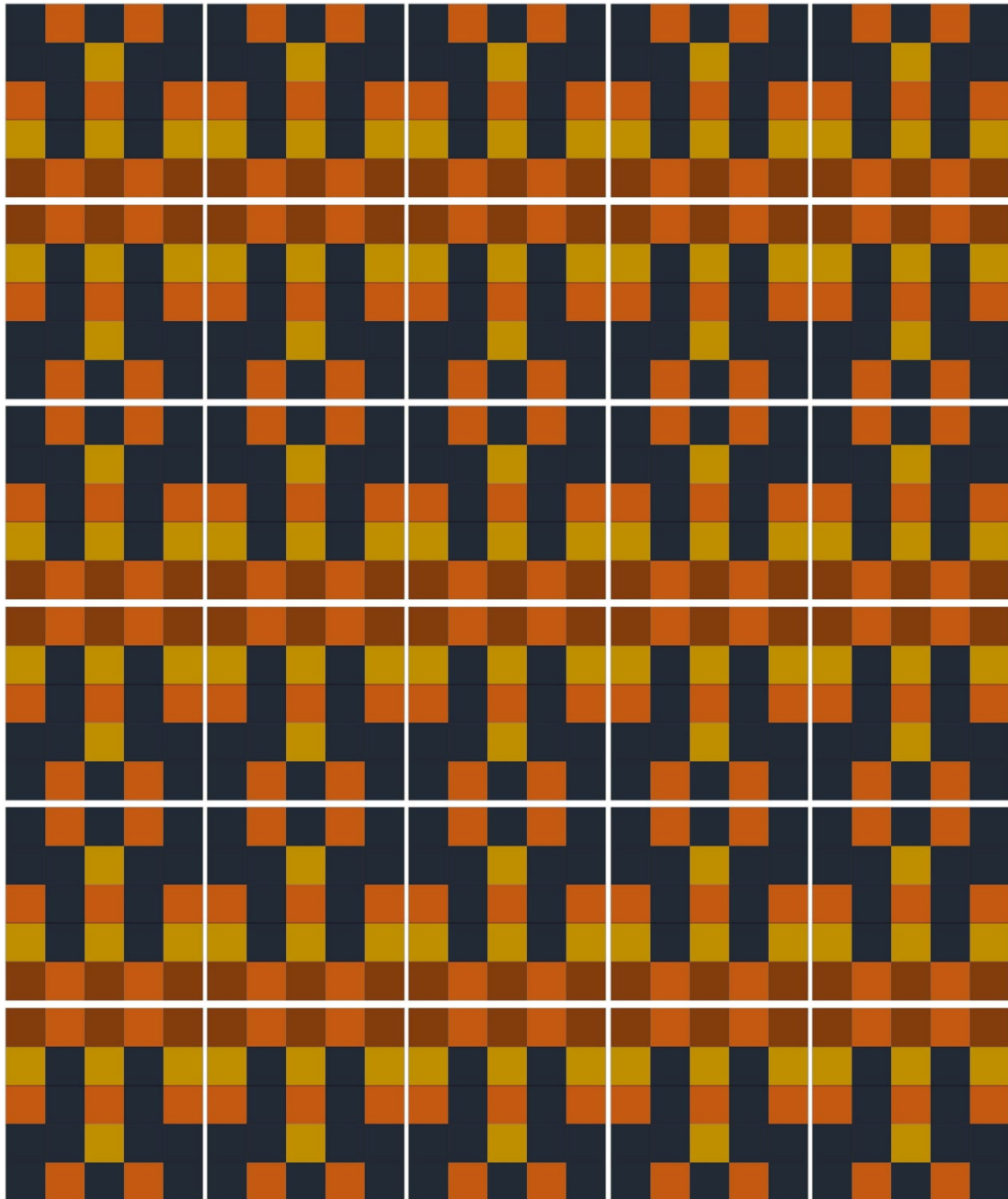


Here are some examples of pupil's work...

9 x 9 Native American Design 01
by Ava



5 x 5 Native American Design by Luca



9 x 9 Native American Design by Rory

