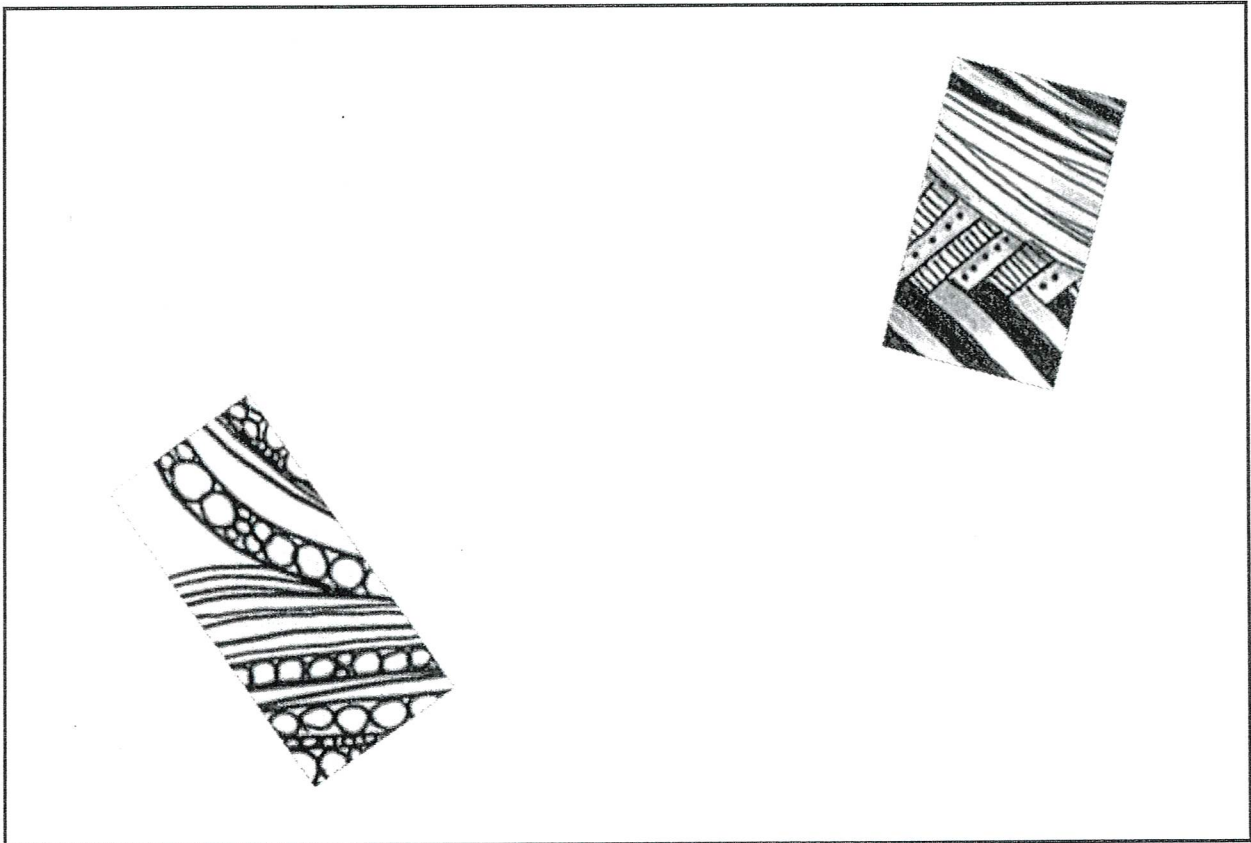


Choose one of the two options below...

Option 1: Pattern extension

Extend the patterns below to create an abstract design that fills the box.

Vary the scale and thickness of shapes and lines for good effect. Add colour to your design if you wish. Consider leaving some parts black and white to create a juxtaposition of monochromatic and coloured elements.

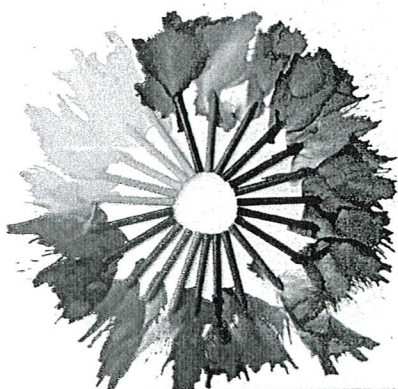
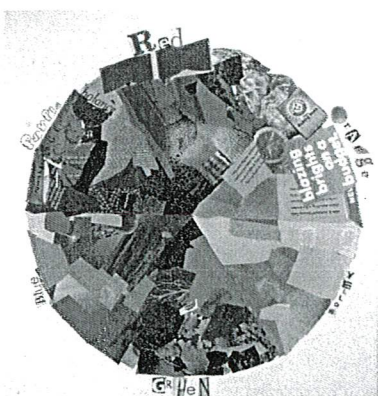
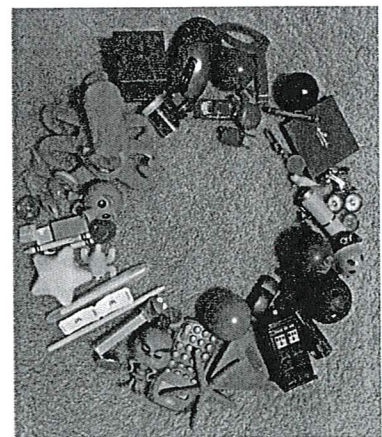


Option 2: Create your own colour wheel.

You could do this by...

- collecting and arranging objects and emailing a photograph to your teacher
- collaging papers in different tones of colours
- drawing and colouring your own colour wheel
- using digital software to create an outcome

Try to be as creative and original as you can.
Your work can be two or three dimensional.



A database is a **persistent organised store of data**. To see what these words mean, imagine a database storing information for a social network:

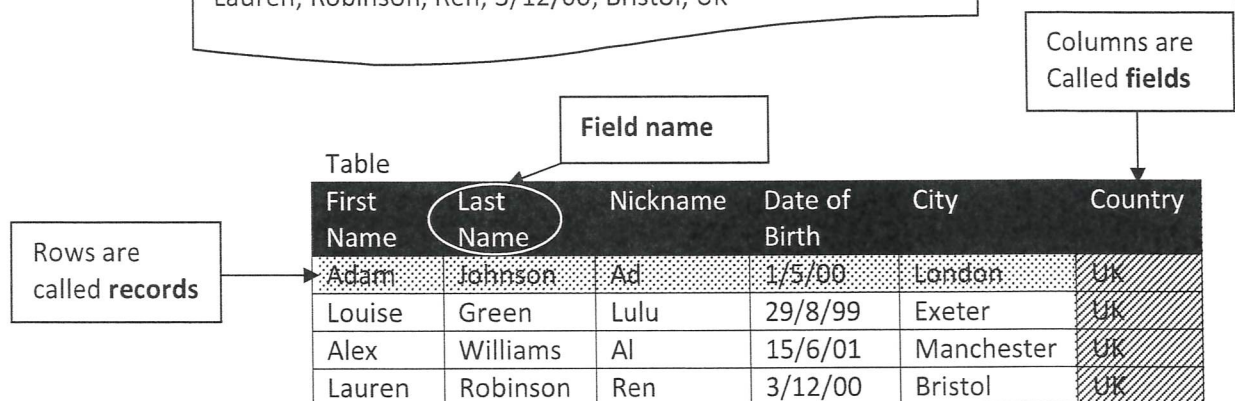
First Name	Last Name	Nickname	Date of Birth	City	Country
Adam	Johnson	Ad	1/5/00	London	UK
Louise	Green	Lulu	29/8/99	Exeter	UK
Alex	Williams	Al	15/6/01	Manchester	UK
Lauren	Robinson	Ren	3/12/00	Bristol	UK

The data has not just been stored as text in a file, it has been organised into a table structure. It is **persistent**, which means that the data will still be stored if the computer is turned off or there is a failure of some kind.

The most simple databases do not use specialist software. They might be a spreadsheet storing data – like the example above. They could also use a file that uses a new line to separate each row and a comma to separate each data item. This is known as a **CSV** (Comma-separated values) file. These types of databases are known as **flat file databases**.

Example of a flat file Database stored in CSV format

```
First Name, Last Name, Nickname, Date of Birth, City, Country
Adam, Johnson, Ad, 1/5/00, London, UK
Louise, Green, Lulu, 29/8/99, Exeter, UK
Alex, Williams, Al, 15/6/01, Manchester, UK
Lauren, Robinson, Ren, 3/12/00, Bristol, UK
```



Some simple database operations can be carried out with flat file databases such as follows:

To delete a record:

1. Find the record
2. Delete the row
3. Move all records beneath up by one

To add a record:

1. Find location to add record
2. Move all records beneath down by one
3. Add record

If though we had a social network with millions of users it would take a huge amount of time to do this sort of processing. For this reason more specialist database software is used.

1. Complete the blank labels for parts of a database table:

First Name	Last Name	Nickname	Date of Birth	City	Country
Adam	Johnson	Ad	1/5/00	London	UK
Louise	Green	Lulu	29/8/99	Exeter	UK
Alex	Williams	Al	15/6/01	Manchester	UK
Lauren	Robinson	Ren	3/12/00	Bristol	UK

2. Match the words on the left to their definitions on the right.

CSV	The data is kept even if the computer is turned off
Persistent	The name given to a column/field
Flat File Database	Comma Separated Values
Field name	A file with no structural information stored in a single file
Database	Persistent organised store of data

3. Which of the following can be used to store a flat file database? (tick two).

- A spreadsheet
- A wordprocessor
- DTP software
- A CSV file

4. The following questions refer to the following database table:

First Name	Last Name	Nickname	Date of Birth	City	Country
Adam	Johnson	Ad	1/5/00	London	UK
Louise	Green	Lulu	29/8/99	Exeter	UK
Alex	Williams	Al	15/6/01	Manchester	UK
Lauren	Robinson	Ren	3/12/00	Bristol	UK

- a) How many records are in the table? _____
- b) How many fields are in the table? _____
- c) What is Louise Green's date of birth? _____
- d) Which user(s) live in London? _____

5. For the user Louise Green in the table above, complete the entry in a CSV file.
 Louise, Green, Lulu, 29/8/99, _____

6. Complete the paragraph with the words given underneath.

A _____ is made up of rows called _____ and columns called _____. Each field has a fieldname as its title.

fields **table** **records**

7. Complete the operation to delete a record from a flat file database:

- 1. Find the record _____
- 3. Move all records beneath up by one _____

8. Complete the operation to add a record to a flat file database:

- 1. Find location to add record _____
- 2. _____
- 3. Add record _____