**Shape and Data Unit 3**

**Problem solving and reasoning questions**

Sort the names of your friends and family into this Carroll diagram.

Make sure you have at least two in each category.

|  |  |  |
| --- | --- | --- |
|  | More than 5 letters | 5 or less letters |
| Starts with a vowel |  |  |
| Starts with a consonant  |  |  |

Draw a Venn diagram with two overlapping sets.

Label one set *more than 4 sides* and label the other set *has at least one right angle*.

Draw at least two shapes in each space on your diagram, including **outside** both sets.

**Shape and Data Unit 3**

**Problem solving and reasoning: answers**

Sort the names of your friends and family into this Carroll diagram.

Make sure you have at least two in each category.

Some examples are below – you could brainstorm this with a group, or alternatively ask children to sort the names of the children in the class.

|  |  |  |
| --- | --- | --- |
|  | More than 5 letters | 5 or fewer letters |
| Starts with a vowel | AmeliaIngrid | ElvisAmy |
| Starts with a consonant  | SamiraSinead | HarryKofi |

Draw a Venn diagram with two overlapping sets.

Label one set *more than 4 sides* and label the other set *has at least one right angle*.

Draw at least two shapes in each space on your diagram, including **outside** both sets.

Check children’s drawings and ask them to explain their placements of shapes. Some children find it difficult to ‘juggle’ 2 different attributes, particularly a negative one. A square or right-angled triangle, for example, would be included in the set that has at least one right angle but not in the set with more than 4 sides. Shapes outside both sets have 3 or 4 sides and no right angles – e.g. scalene triangles or kites.