A three set Venn diagram

$1=\mathrm{red}=A \cap(B \cup C)^{\prime}$

3 = yellow $=B \cap(A \cup C)^{\prime}$

5 = purple $=A \cap B \cap C$

7 = burnt orange $=\mathrm{C}$ but not A or $\mathrm{B} C \cap(B \cup A)^{\prime}$

2 = green $=A \cap B \cap C^{\prime}$

4 = blue $=A \cap C \cap B^{\prime}$

6 = grey $=C \cap B \cap A^{\prime}$
$8=$ teal $=(A \cup B \cup C)^{\prime}$

$1=A \cap B^{\prime}$
$2=A \cap B$
$3=A^{\prime} \cap B$
$4=(A \cup B)^{\prime}$

Venn diagrams are a great help for visual students. If necessary, print this off and write in words what each region means. Take it slow and think about what the prime (') means. If A is the set children with an illness and $B$ is the set of children living in the country; then $A^{\prime}$ represents children that are not ill and $B^{\prime}$ represents children not living in the country.

