

## How old is Hector?

Using this list of facts, work out how old Hector is.

- Lottie was four when Hector was born.
- Archie was six when Hector was born.
- Henry was ten when Hector was born.
- Last year Archie was  $\frac{4}{5}$  the age of Henry.
- Next year Hector will be  $\frac{1}{4}$  the age of Mum.
- Mum is above the age of 38 and below the age of 60.
- Last year Hector was  $\frac{1}{2}$  the age of Henry.

How old is Hector?



### Puzzle Pointer

Always look for the relevant information. The ages of Lottie and Archie are not going to help but the ages of Mum and Henry are critical. Begin by writing down the ages that are possible then cross out the ages that do not fit with the rest of the information provided.



## Answer

**Hector is 11 years old.**

To solve this you can start with Hector being  $\frac{1}{4}$  the age of Mum **next** year. We know that next year Mum must be an age divisible by 4. Her possible age **next** year is (40, 44, 48, 52, 56) so this year Mum must be 39, 43, 47, 51, 55 and Hector must be 9, 10, 11, 12, 13.

**Last** year Hector was  $\frac{1}{2}$  the age of Henry so Henry must be (16, 18, 20, 22, 24) **last** year so this year Henry must be (17, 19, 21, 23, 25). You know that Henry was 10 when Hector was born so there must be a difference of 10 years.

HECTOR	9	10	<b>11</b>	12	13
HENRY	17	19	<b>21</b>	23	25
Age difference	8 years	9 years	<b>10 years</b>	11 years	12 years