Independent Task
To develop strategies to plan and solve problems

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OAK NATIONAL ACADEMY

## To start

Work out the answer to each of these calculations.


## Moving on

Can you work out how many blocks would be needed to make the first 6 dogs in the sequence?

| Dog number | Total Cubes |
| :---: | :---: |
| 1 | 9 |
| 2 | 12 |
| 3 |  |
| 4 |  |
| 5 |  |

What is the rule of this sequence? What happens to the total cubes value each time? Explain in a sentence:
$\qquad$

## Main task

Can you work out how many blocks would be needed to make the next 8 dogs in the sequence? Also include the body sections!

| Dog <br> number | Body | Legs | Tail | Ears | Nose | Head | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 8 | 12 | 1 | 1 | 1 | 1 | 24 |
| 7 |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |

## Challenge

How many cubes for dog 100?

| Dog <br> number | Body | Legs | Tail | Ears | Nose | Head | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 8 | 12 | 1 | 1 | 1 | 1 | 24 |
| 7 | 9 | 14 | 1 | 1 | 1 | 1 | 27 |

## Remember:

To work out the body we use the formula:
DOG NUMBER + 2

To work out the legs we use the formula:
DOG NUMBER x 2

