

## Racing riddles

*Children discuss the positions of four dogs in a set of four races using the information given. They attempt to use mathematical reasoning to answer questions and complete a table of results.*

## Skills practised:

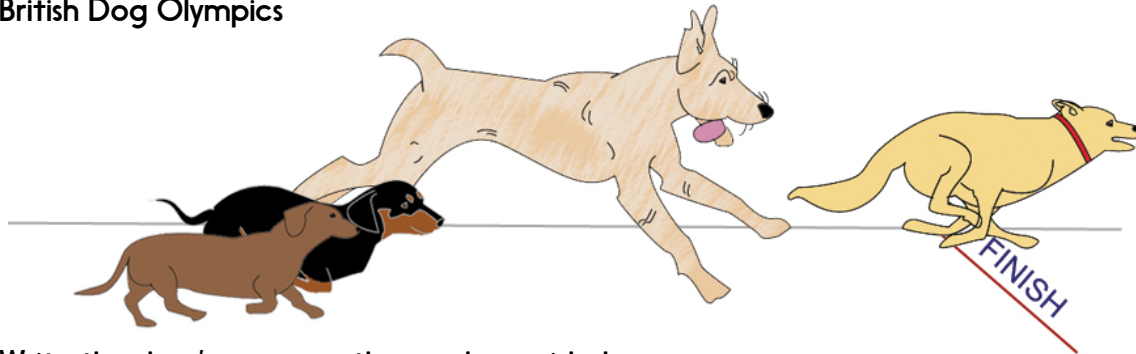
- Understanding and using ordinal numbers

*Conjecture: We can complete a table of results using given information and mathematical reasoning.*

### What to do:

*Children work individually or in pairs. Provide children with four cards each to write the dogs names on.*

British Dog Olympics



1. Write the dogs' names on the cards provided.
2. In the Dog Olympics, the same dogs always seem to come in the top four.

Their names are Albi, Bubs, Cash and Dibs.

- Dogs get 1 point for being 4<sup>th</sup>
- Dogs get 10 points for being 2<sup>nd</sup>
- Dogs get 5 points for being 3<sup>rd</sup>
- Dogs get 20 points for being 1<sup>st</sup>

3. They all ran four races in the Olympics.

Here are their points:

Albi	Bubs	Cash	Dibs
41	51	40	12

4. Write the dogs in order as to who came 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> in the Olympic
5. Now see if you can work out how to complete the following table:

Race number	Albi	Bubs	Cash	Dibs
1				4 <sup>th</sup>
2	4 <sup>th</sup>			
3		1 <sup>st</sup>		
4			2 <sup>nd</sup>	3 <sup>rd</sup>

6. Now, you and a friend work out answers to the following questions:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Which was the only dog who never came 4<sup>th</sup>?</li> <li>• How many times did Dibs come 4<sup>th</sup>?</li> <li>• If Cash came 3<sup>rd</sup> twice, how many times did he come 1<sup>st</sup>?</li> </ul> | <ul style="list-style-type: none"> <li>• How many times did Bubs come 1<sup>st</sup> in a race?</li> <li>• How many times did Albi come 2<sup>nd</sup>?</li> <li>• What other position did Dibs manage to get in his races?</li> </ul> |
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### Aims:

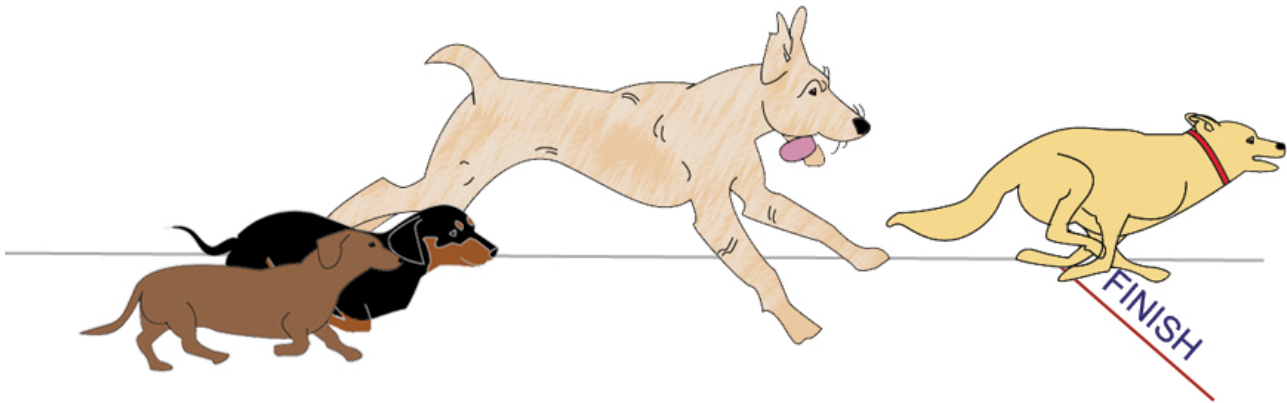
- To use trial and improvement effectively
- To draw on their knowledge of addition patterns
- To use logical reasoning to work out the results of the different races

### Minimum number of calculations expected

N/A

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## British Dog Olympics



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- Dogs get 1 point for being 4<sup>th</sup>
- Dogs get 5 points for being 3<sup>rd</sup>
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- Dogs get 20 points for being 1<sup>st</sup>

- They all ran four races in the Olympics. Here are their points:

Albi	Bubs	Cash	Dibs
41	51	40	12

- Write the dogs in order as to who came 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> in the Olympics.
- Using the cards to help see if you can work out how to complete the following table:

Race number	Albi	Bubs	Cash	Dibs
1				4 <sup>th</sup>
2	4 <sup>th</sup>			
3		1 <sup>st</sup>		
4			2 <sup>nd</sup>	3 <sup>rd</sup>

- With a friend work out answers to the following questions:
  - Which was the only dog who never came 4<sup>th</sup>?
  - How many times did Bubs come 1<sup>st</sup> in a race?
  - How many times did Cash come first?
  - How many times did Dibs come 4<sup>th</sup>?
  - What other position did Dibs manage to get in his races?
  - How many times did Albi come 2<sup>nd</sup>?