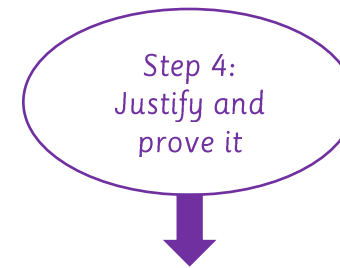
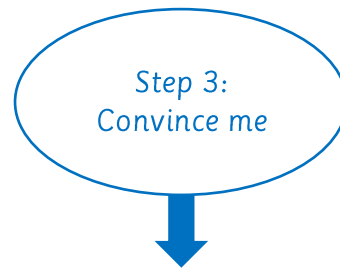
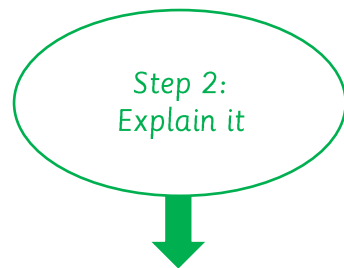
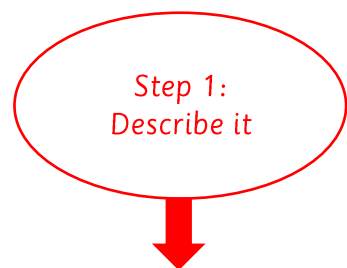


Progression in Mathematical Reasoning



<p>Children can orally tell you what they did to solve a problem.</p>	<p>Children begin to offer some reasons for what they did. They might represent their idea in another way such as drawing and labelling it to help them explain.</p>	<p>Children work more systematically and make relevant links between mathematical knowledge that support their answer.</p>	<p>Children produce a correct argument that is based on generalisations and they can generate other examples to support their argument.</p>
<ul style="list-style-type: none"> • First I... then... and... • The pattern looks like... • I solved the problem by... • The strategy I used was... • I know the problem is asking me to... because... 	<ul style="list-style-type: none"> • I noticed... so I... • I know that... therefore... • I decided to... because... • The answer is... because... • I think... because... • I could show this by... 	<ul style="list-style-type: none"> • It must be true because... • It could be because... • It can't be because... • If __ is true, then... • Another strategy I could have used is... • This is similar/different to... • The most efficient strategy would be... 	<ul style="list-style-type: none"> • I can prove that... because I can show... • If __ is true, then... is also true because... • Therefore... • This is always true, because... • Another example of this is...

Questions to encourage mathematical talk and reasoning:

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> • How did you get...? • What strategy did you use? • Why did you...? • How did you know which operation to use? | <ul style="list-style-type: none"> • Which key words helped you? • Why is __ true? • How did you do that? • How can you be sure that...? | <ul style="list-style-type: none"> • Is there another possible solution? • Is this always true? • Can you show me another way? • Can you explain how...? |
|--|--|--|

