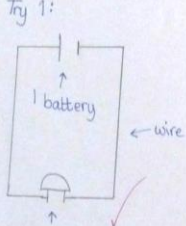
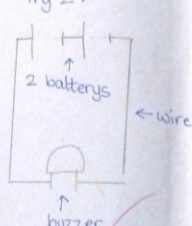
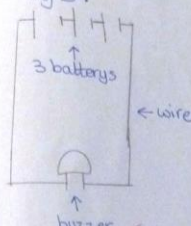


<b>Topic:</b> Electricity	<b>Year 6</b> Age 10-11	<b>Title:</b> Own circuit investigations
<b>Working Scientifically Focus</b> <b>Plan:</b> make predictions to set up further comparative and fair tests		<b>Conceptual Knowledge Focus</b> compare and give reasons for variations in how components function

Monday 4th May

L.L. Use test results to make a prediction to set up further comparative and fair tests.

What will happen to the buzzer if we apply more batteries?

Try 1:  Try 2:  Try 3: 

Prediction: We predict the more batteries the more sound.

Test: What will you change? To keep it fair we will: keep the number of buzzers, wires the same. We will use 4 wires, 3 batteries and 1 buzzer.

Measure: We will measure the sound.

Try 1	Try 2	Try 3
93.0	104.5	100.3
97.5	107.0	110.0
88.8	103.3	100.0
95.9	100.2	110.3
94.4	101.0	110.0
AVER AVERAGE		
93.52	103.2	109.2

Conclusion on back

**Example:** Children explored a range of equipment (different lengths and widths of wire, different sizes of cells, light bulbs, buzzers, motors, switches). From their exploratory investigations they made further predictions and raised questions to investigate independently (in 3s).

Children meeting the objective would be able to systematically explore the effect of different components. For example, the group above considered the effect of the number of cells on a buzzer, whilst the second group measured how the temperature was affected by a 'fan' attached to an increasing number of cells.

How will the temperature change in our fan?

Please try to redraw this circuit below using a square shape.

I predict that the number of batteries is 1-2 will increase/decrease if the speed of the fan or change.

To keep the test fair: we will keep the same motor, length of wire, motor we will change the amount of batteries.

What will you measure? The length of the tick and string are you sure? If you are finding out about temperature change, what will you measure?

Please think further about your prediction. If you use more batteries will the temperature increase or decrease? Can you use an 'or' phrase? The faster the speed the hotter the temperature.

Number of Batteries	Temperature
1	24°C
2	23.6°C
3	23°C
4	22.6°C
5	21.9°C

Conclusion: It cools it down because it gets faster.

Remember to use evidence in your conclusion.

Example from St Mary's Primary School, Poole