

Using the interactive investigative skills presentation

Please read these notes before using the presentation. We tried to show all three pages on the one screen but this meant that the text was too small and so some sideways scrolling is unavoidable.

The presentation aims to show how ideas are developed during an investigation. It allows teachers and children to write onto moveable 'Post-it' notes that can then be dragged from one section to the next.

The processes of planning, obtaining evidence and considering evidence are linked.

The screenshot shows a digital interface titled "Interactive planning poster". It is divided into three main sections: "Planning", "Obtaining evidence", and "Considering evidence". The "Planning" section includes fields for "We could change" (yellow boxes), "We could measure or observe" (green boxes), "Our question is", "We will change", "We will measure", "We will keep the same", "What do we think will happen?", and "Why will this happen?". The "Obtaining evidence" section includes fields for "Change", "Measure or observe", "How it was changed", and "What happened". A scroll bar at the bottom allows navigation between these sections. A "Print" button is located in the top right corner.

Yellow and green 'Post-it' notes. Click onto the box and type text to show conditions that could be changed or measured.

'Post-it' notes are dragged to boxes showing what is changed and what will be measured.

To make amendments to typed text, first highlight the text to be replaced and then re-type the new text.

When shown using Powerpoint, the backspace button does not delete text.

Scroll bar moves pages sideways from Planning to Obtaining evidence and Considering evidence.

Method for using the presentation

It is advisable to run through the presentation first to make sure it is suitable for the investigation being undertaken.

Introduce the activity, which involves planning an investigation into a particular topic.

Ask the children what conditions could be changed to investigate the topic. This could be quite broad and there are only four that can be included onto the presentation. It may be best to consider all of the possibilities suggested and choose the most appropriate four to include on the presentations.

To put the conditions that could be changed onto the presentation, simply click the mouse inside one of the yellow 'Post-it' notes and type the text. Do not go past the end of the box as this text will not be visible. Correct errors by highlighting the incorrect text and re-typing.

Repeat the process to list factors that could be measured or observed. Say to the pupils "If we change one of these things" (the conditions already identified), "What can we measure or observe to see if it's made a difference?"

Up to now, the topic has been looked at in a broad context. Once this process is complete, it is then necessary to focus onto a definite question to answer. This is then typed in the box just below the 'Post-it' notes.

Choose one condition to change and one to measure or observe. Move these 'Post-its' in the appropriate places on the planning poster.

- To move the 'Post-it' notes.
1. Click mouse onto bottom part of note and hold mouse button down.
 2. Drag the note to the required position.
 3. Release mouse button to drop the note in place.
 4. If the note still 'sticks' to the mouse pointer, release and click the mouse button once in place.

Interactive planning poster

Position page in centre of window and press Print below
Choose page 1 from the Print box. Print

Type into the spaces. Click and drag the yellow and green layers to show how the different factors move through planning, measuring, results and analysis.
Scroll side to side using the slider at the bottom to see the different pages.

Planning		Obtaining evidence	
We could change	We could measure or observe	Change	Measure or observe
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Our question	Type your question in here	How it was changed	What happened
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
We will change	We will measure	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
We will keep the same:		<input type="text"/>	<input type="text"/>
<input type="text"/>		<input type="text"/>	<input type="text"/>
What do we think will happen?	Why will this happen?	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Ask the pupils, "What do we need to keep the same to make it a fair test or comparison?" They are likely to identify each of the remaining conditions on the left side. Move the appropriate notes down into the section labelled, "We will keep the same."

The notes can be easily replaced in their original positions, and you can exemplify the fair test/comparison stage again, by deciding on a different factor to test. This helps more of the pupils to realise that one factor only is changed, and the rest kept constant.

Once the condition under investigation have been chosen, it needs to be moved from the Planning page onto the Obtaining evidence page.

Click and drag the 'change' note over to the 'change' section on the evidence page. This may take a couple of stages.

Move the notes into the boxes on the Obtaining evidence page (see above).

The screenshot shows a web-based interface titled "Interactive planning poster". At the top right, it says "Position page in centre of window and press Print below" and "Choose page 1 from the Print box." with a "Print" button. Below this is a set of instructions: "Type into the spaces. Click and drag the yellow and green layers to show how the different factors move through planning, measuring, results and analysis." and "Scroll side to side using the slider at the bottom to see the different pages." The interface is divided into two main panels: "Planning" on the left and "Obtaining evidence" on the right. The "Planning" panel has sections for "We could change", "We could measure or observe", "Our question is", "We will change", "We will measure", "We will keep the same", "What do we think will happen?", and "Why will this happen?". The "Obtaining evidence" panel has sections for "Change", "Measure or observe", "How it was changed", and "What happened". A yellow arrow points from a yellow box in the "Change" section of the "Obtaining evidence" panel to a yellow box in the "We could change" section of the "Planning" panel. A green arrow points from a green box in the "Measure or observe" section of the "Obtaining evidence" panel to a green box in the "We could measure or observe" section of the "Planning" panel. A vertical slider is visible on the right side of the interface.

It is now possible to obtain actual results and put them into the evidence page. Use the 'How' column, to show how the condition was changed. Use the 'What happened' column to show the result.

For example, in an investigation looking at the time it takes to filter dirty water using different materials the result would look like those shown below.

Change	Measure or observe
Filter material	Time to filter 100cm ³ water

How	What happened
Filter paper	45 seconds
Cotton wool	22 seconds
Fishing net	6 seconds
Kitchen towel	38 seconds

The final stage is to drag and reposition the 'change' and 'measure' notes onto the graph axis on the Considering evidence page.

First scroll the pages sideways so that both the Obtaining evidence and Considering evidence pages are visible. Reposition the notes as before. Unfortunately there is currently no way to draw the actual results onto the presentation. Some interactive whiteboards may allow you to pause the presentation and draw onto the board independently.

You can also evaluate the results by looking at the pattern of results, was it predicted and how could it be improved.

Printing the pages

Pages can be printed at any time.

1. Use the scroll bar to position the pages that you want to print in full view in the screen.
2. Press the print button.
3. In the print box that appears, select 'Pages' and 'page 1.'
4. Select the Print button to start printing.