C2. MOVING ON

Highlighting and annotating texts or images Recording a teacher voiceover

In the first clip we see Diane's use of a recorded version of on-screen text, where the teacher first played an audio file of herself reading out a personal safety scenario for children to discuss. This use of recording brings a different voice to the classroom, engages students and allows the teacher to focus on the students' reactions rather than on the act of reading.

Using the colour highlighter or annotating with the IWB pen can be particularly effective in drawing attention to particular aspects of a text, picture or other digital resource and in developing and recording interpretations of it. The second clip starts with the key parts of the text ("suggestions about what people think is really important") having been identified by the students and highlighted. Here, the students suggest words and phrases that may be useful in their coming group discussions about secrets. One student annotated around the text to represent her peer's understandings of the characters' feelings, with the teacher managing the discussion. We can see that students were stimulated to go beyond the printed text, generating and explaining their own ideas and illustrating empathy (e.g. "beaten", "confused").

My friend Sam asked to tell me something in each secret, and then showed me bruises on her armount and back. She said her Dad hits her quite often, he hits her Mum and sister too. Last night her with he hits her Mum and sister too. Last night her with he hits her Mum and sister too. Last night her with he hits her Mum and sister too. Last night her with he head, and now she can't see properly. Her sister says she must keep quiet and stay loyal to the family, because if she tells, her Dad will go to prison and the Beatan's family will be split up. But her head hurts, and she's scared to go home, and she needs to talk to someone. She says that she chose me because I am her best friend and I can be trusted to keep her secret.

Videos 10 and 11

Video 12 (Overall sequence)

See template: Notebook ideas - Recording sound See file: Screen & Sound Recording (ActivInspire).pdf

Focusing attention using the spotlight, magnifier or 'cover and reveal'

You could use the "blind" or "cover and reveal" feature to create suspense and then reveal parts of a text or prompt questions one by one to stimulate discussion.

You can also use the circular or rectangular spotlight feature to highlight selected parts of the screen.



Gas! GAS! Quick, boys! - An ecstasy of fumbling Fitting the clumsy helmets just in time,





See templates: Notebook ideas - Rub to reveal; ActivInspire ideas - Rub to reveal

Understanding a text: taking it apart

You might use images related to a poem or other text to stimulate a brainstorm of students' own ideas and record these by annotating the text. In this way an original text can evolve into a richer resource. This example shows a sequence of IWB slides used during a lesson on the poem "Education for Leisure" by Carol Ann Duffy. The originally projected text has 'disappeared' in the course of developing a dialogue exploring a character's feelings, the significance of an evocative image (second slide) for the poem's persona, and the ways in which the image and poem, plus other poems studied, reflect today's society. Capturing learners' interpretations is made easier through directly manipulating objects on the IWB, highlighting and annotating during discussion.





Depressed, loney society

Full of yobs + hooligans

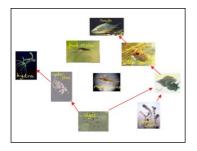
Achieved nothing - seach

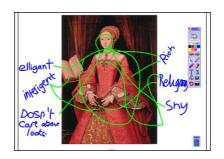
Fun destroying something

Drug / Alcohol

Getting students to build on each other's contributions; constructing knowledge together as a class

Students can be asked to come up in turn and move objects around to create a collective object that builds on previous contributions, as in this food chain example. Students each added a picture and a link in turn. Importantly they were asked to explain their reasoning.







In the second example, students used the pen in turn to record perceived characteristics of the young Queen Elizabeth I around a projected digital photograph of this historical portrait, as shown. The work explored whether the "Golden Age" of Elizabeth was truly golden! A second group of students subsequently interpreted their peers' thinking by drawing in links from their classmates' labels (written without comment) to features of the same portrait – they had to interpret someone else's thinking to do this. Finally, the teacher reflected with the class on the power of this collaborative **enquiry** and the scope of historical evidence offered by the paintings. Considering different perspectives and developing a more collective view of Elizabeth was powerful in altering their original individual conceptions although the teacher concluded that pictures only tell a partial story.

Video 3

In our third example of building in responsiveness to others' ideas, one student used the IWB underlining tool to identify key phrases in a historical text (an army doctor's 1914 diary), then the class were asked to explain his choices.

Video 5

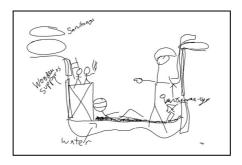
Finally, students might be presented with part of a picture and asked to add the missing elements in turn.

Note that in each of these examples, getting students to respond to others' ideas is built into the activity.

Drawing objects on the IWB together

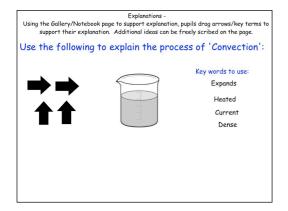
As in the previous examples, students are building on each other's ideas here, and also on their knowledge and experiences from previous lessons. This time they are creating a joint picture by each adding an element in turn – this is a nonverbal kind of dialogue that creates a class product. Here the diagram depicted an imaginative range of elements perceived by students to be typically present in a trench, and it succinctly portrayed more than was said while drawing. It contained elements arising from the pair/class dialogue of their previous two lessons on trench warfare, "building on their informed speculation from some of the things that they had seen" (teacher).

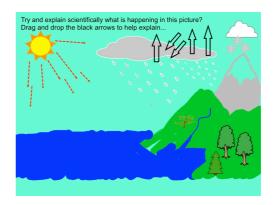
Video 13

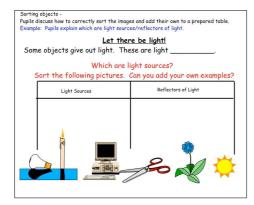


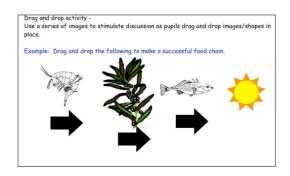
Drag and drop, argue and explain

In these four examples from science, students drag and drop or sort the given images to show their understanding of a scientific process, and are then required to explain their reasoning.









Drag and drop, argue and explain can also be used to sort theories or statements of fact, as in the mathematics example below: students place the statements in the chosen column and explain why they are true, false or "iffy" (uncertain). (See also "Square of truth" or "magic box/window" activity below)

| True | Iffy | False | Don't know |
|--|---|--|---|
| True A- The product of two numbers is a whole number is a whole number to a number multiplies it by 10 C- The square root of a number is smaller than the number itself D- The product of two odd numbers is odd E- Square numbers have an odd number of factors | Iffy F- When you square a number the answer is positive G- dividing by two then by 10 is the same as the opposite H- two fifths of a number is the same as dividing by 5 then multiplying by 2 I- Prime numbers are odd J- The sum of the digits of a multiple of 3 is divisible by 3 | False K- The sum of two numbers is greater than their difference L- Perfect squares have only 3 factors M- product of three whole numbers is never same as sum N- The product of a positive and a negative is negative | Don't know C- Dividing by a number less than one gives a larger number P- Multiplying two numbers gives an answer bigger than either C- sum of two odd numbers can sometimes be odd R- The cube of a number is bigger than square |

See templates: Notebook ideas – Sorting objects; Drag and drop; Explanations (a and b); True / false / iffy (a and b)

See templates: ActivInspire ideas - Sorting objects; Drag and drop

Students selecting their own words / pictures / scenarios from a given set and manipulating / discussing them in pairs/groups

In the first example each group of 4-5 selected a slightly different combination of images pertaining to personal safety issues, arranged them on the IWB as they desired and annotated them during discussion (generating advice "as a team working for Childline" and recording this on large sheets of paper). In the video clip one group talks through their ideas to the class, annotating the images; the teacher encourages other students to comment.

Video 15

One group outcome is shown. This can also be done with paper replicas at tables with one pair showing their work on the board afterwards, as in the second example from a science lesson (see Matched resources below).



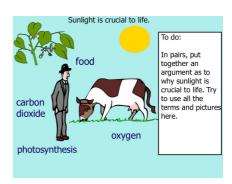


Image of "divided loyalties" mask is reproduced by kind permission of the originator Wendy Morrell.

See flipchart (for 1st example) in Reader Appendix B2.2

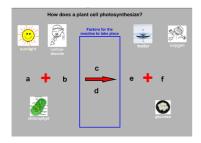
Matched resources: students arranging objects on the board and at their desks

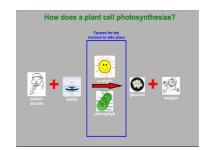
In this related, example the teacher introduced the equation of photosynthesis using colour pictorial images of its components and an equation template on the IWB. The class were given paper mini-diagrams that replicated the IWB images (matched resources) and asked to cut up and order them, justifying their arrangements; this generated quite a lot of discussion and reportedly motivated students to 'want to know the answer'. The teacher circulated, talking to small groups of students, questioning and challenging their thinking. One student then came up to the IWB and moved the elements around to complete the equation. Students verified their own diagrams against this model before sticking the correct version in their books.

Video 14

This clip illustrates how the teacher used the equation on the IWB as an object of reference for the whole class, plus the mini-diagrams to stimulate thinking and support stepwise knowledge building; he continued this process throughout the whole sequence of lessons.

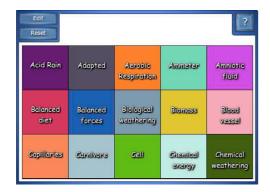
(For further diagram uses, see Clips 1.3, 2.3. 4.2, 5.1 on the T-MEDIA multimedia science resource at http://t-media.educ.cam.ac.uk.)





Discussing definitions: using hide-and-reveal tiles

Students can discuss the meaning of terms displayed on each tile, then clicking reveals the definitions underneath. They can add to or amend the definitions.

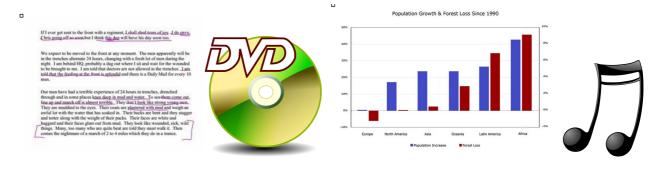


See templates: Notebook ideas - Tiles (a & b)

Using a wider variety of digital media: embedding audio and video for "multimodal" interaction

You can use the IWB to switch easily between media or to combine different kinds from the wide range available – embedding audio, video etc into flipcharts so they're immediately accessible. This "multimodal" use can help to stimulate dialogue, build up understanding over time and maintain engagement.

For example you might show a video to illustrate or analyse themes or texts. Apart from text, audio and video, digital resources include drawings, diagrams, still photographs, dynamic multimedia presentations, animations, simulations and models of dynamic processes, interactive diagrams or maps, databases, graphs, tables, hyperlinked webpages, mathematical representations, musical performances, etc.



Combining lots of resources is illustrated in the lessons on trench warfare taught by Lloyd where a class explored the open-ended question: "Can we imagine the experience of trench warfare?" The teacher employed a doctor's diary text, a poem, a YouTube video related to the poem, separate audio and video tracks of a single trench warfare film on DVD, a textbook trench diagram and wartime photographs; these conjured up different experiences and perspectives of life in the trenches.

Video 5 compilation

See template: Notebook ideas – Recording sound, Inserting video

See files: Screen & Sound Recording (ActivInspire).pdf [Templates folder] and Downloading,
Inserting, and Embedding Video into ActivInspire [http://tinyurl.com/videoPromethean]