<table>
<thead>
<tr>
<th>Time</th>
<th>Summary</th>
<th>Teacher</th>
<th>Colleague</th>
<th>Researcher 1</th>
<th>Researcher 2</th>
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<tbody>
<tr>
<td>0:03:25-</td>
<td>Example: How would we work out how Dr B's car works?</td>
<td>Analogy drawn between the way a car works and a leaf. I have deliberately</td>
<td>Analogy model continued. Leads through analogy by questioning how does the</td>
<td>Analogy; authoritative interaction; assistive questioning to help pupils think logically about investigating the system</td>
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<td>0:06:50</td>
<td>Take it apart. Where would we start dismantling?</td>
<td>chosen to talk about a notorious member of staff here to engage pupils'</td>
<td>car work (humour as car belongs to specific teacher keeps attention). Now</td>
<td>Reveal item 3 on screen visually links discussion back to lesson activity.</td>
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<td></td>
<td>Sherry responds: Front - has engine in. T: But car needs</td>
<td>interest. Use of funnelling here to guide pupils to the notion of</td>
<td>today take apart the leaf to see how it works. Set the scene for lesson.</td>
<td>Orientates within knowledge framework; indicates limitation of analogy by</td>
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<td></td>
<td>petrol so somewhere else we should start from? P: Back.</td>
<td>following through from the petrol tank. Emphasis shifted over to the</td>
<td>Uses IWB to be more specific; draws attention to equation, minimises to</td>
<td>contrasting design complexity of car/leaf. Leaf detective slide gives limited</td>
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<td></td>
<td>P: Fuel tank. T: What system would we use? P: Follow</td>
<td>pupils to ‘be leaf detectives’ to ‘look for clues.’ Challenge laid</td>
<td>create space for the leaf to be enlarged to form the focus. How does the</td>
<td>info. Cartoon adds humour. (T gives more detail verbally). Direct link made between processes to be investigated and elements of</td>
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<td></td>
<td>pipes. T: To? To engine, through to exhaust, to find</td>
<td>down for pupils to use their skill to find out how the process of</td>
<td>leaf work? Look for clues. Cartoon focuses of task explained, poses</td>
<td>equation.</td>
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<td></td>
<td>out how car works. Today we'll take apart the leaf and</td>
<td>photosynthesis is actually enacted.</td>
<td>questions</td>
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<td>see how it works: we will be leaf detectives looking for</td>
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<td>clues: 3 activities relating back to photosynthesis</td>
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<td>equation – how does plant get water, CO₂, sunlight,</td>
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<td>what about chlorophyll, what does it do with sugar</td>
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<td>made, what happens to the oxygen? [Slide 2: cartoon of</td>
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<td>leaf detectives]</td>
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**Figure 1. Sample commentary grid (science)**
**Figure 2.** T-MEDIA Across Subjects CD – Interactive theme map

**Figure 3.** Hitchhiker image as stimulus for group and class discussion
Start by repeating something that somebody says to you that really irritates you and is part of the problem - perhaps a flashback to the past

‘One more sick-note Mister and you’re fired!’

Imagine someone has asked you a question about why you behave the way you do...repeat the question or start with the answer

‘The most unusual thing I ever stole? A snowman.

Figure 5. ‘Silent scaffolding’ for poem writing in English

Figure 6. ‘Interdependence’: Cumulative annotation in history
Duration data for use of IWB (summed across six lessons)

- Whole class teaching with IWB: 53%
- Whole class teaching; no direct IWB use: 8%
- Mixed mode activity: 8%
- Mixed no IWB: 2%
- Mixed IWB: 2%
- Individual work with reference to IWB: 11%
- Individual work with no reference to IWB: 14%
- Pair/small groupwork referring to IWB: 3%
- Pair/small groupwork not referring to IWB: 3%

The Interactive Whiteboard was used in every lesson - most often to support whole class teaching - from 82% of time in L6 to 22% in L7, where pupils were working on their collages.

On occasions, while pupils worked individually the IWB display provided 'silent scaffolding' (see Glossary), for example in L8 where pupils were writing their poems it was used in this mode for 28% of lesson time.

There was some whole class teaching without the IWB too. For example, in L3 this accounted for 26% of lesson time and included an episode where pupils performed a short drama sketch.

**Figure 7. English durations chart**

Duration data for use of IWB (data summed across six lessons)

- Whole class teaching with IWB: 63%
- Whole class teaching; no direct IWB use: 22%
- Mixed mode activity: 8%
- Mixed no IWB: 2%
- Mixed IWB: 2%
- Individual work with reference to IWB: 3%
- Individual work with no reference to IWB: 3%
- Pair/small groupwork referring to IWB: 5%
- Pair/small groupwork not referring to IWB: 5%

Overall, the greatest proportion of lesson time was spent in whole class teaching with the IWB; this ranged from 55% (Lesson 6) to 79% (Lesson 3).

A small proportion of time spent in pair/small group work in each lesson, often in preparation for contribution to whole class discussion, focused on the IWB. Length of time varied across lessons and ranged from 12% (Lesson 1) to 2% (Lesson 2).

Students also worked individually on occasions in all of the lessons, including researching information and writing notes. The proportion of lesson time spent on these activities ranged from 14% (Lesson 6) to 5% (Lesson 2).

**Figure 8. History durations chart**
Duration data for the use of IWB in Science (summed across 6 lessons)

Figure 9. Mathematics durations chart

Duration data for use of IWB in Science (summed across 6 lessons)

Figure 10. Science durations chart
Figure 11. T-MEDIA Science CD – video screen

Figure 12. Across Subjects CD – Interactive map of IWB features used