1 Strategies for helping pupils to become more aware of Key Processes

1. Using a poster or handout

Make a poster showing the generic list of Key Processes and display this on the classroom wall. Refer to this habitually, while pupils work on unstructured problems, so that they become more aware that your goals for the lesson are for them to become more able to *represent, reason, interpret, evaluate* and *communicate*.

2. Creating task-specific hints

Before the lesson, prepare some task-specific hints that apply the generic processes to the particular problem in hand. When pupils are stuck, give them the appropriate hint either on paper or orally. For example, you could ask: *"Can you use a table or graph to organise this data?"; "What is fixed and what can you change in this problem?"; "What patterns can you see in this data?".*

3. Asking pupils to assess provided samples of work

After students have worked on a task, present them with some prepared, sample responses from other students. These solutions provide alternative strategies students may not have considered and may also contain errors. Ask pupils to pretend they are examiners. The students rank order these solutions, along with their own response, giving explanations as to why they think one response is better than another.

4. Using prepared 'progression steps'

Students evaluate sample responses as in (3) above, but this time you also provide them with *prepared progression steps* that highlight the key processes. Students use these to evaluate the work. End the lesson by sharing what has been learned from this process.

5. Asking pupils to assess each other's work.

After tackling a Bowland task in pairs, pupils exchange their work. Each pair of pupils is given the work of another pair. Pupils make suggestions for ways of improving each solution and stick these on the work using "sticky" notes. These comments are passed back to the originators, who must then produce a final, improved version based on the comments received. This is a more challenging strategy for the teacher than (3), as the issues that arise will be less predictable.

6. Pupils interview each other about the processes they have used.

When pupils have finished working on a task, ask them to get into pairs. Each member of a pair interviews his or her partner about their approach and the processes they have used while working on the task. The teacher may provide some pre-prepared questions to assist in this. After noting down the replies, pupils change roles. Suitable questions might be:

- What approach did you take?
- Which processes did you use (from a provided list)?
- How could this work be improved?
- What could you have done differently?
- Is there still something you are confused by?