Support • Research • Innovate

GLOW

Enjoy • Participate • Achieve

Task

Purpose

Questions

-1

Find out what do they know already and how do they see it; recognising different representations and limitations

To identify what they do not yet know, and what they do know that can be used as a basis for what follows

Give/draw me (a hard/easy) example(s) …
What do you know about this?

0

What is the key idea they don't know yet?

1

One problem that has several possible ways to solve it with current knowledge

To use current knowledge and experience so what happens next can build on a shared basis

What can you see? What do you know? Is there another way?

2

Vary the problem in ways that draw attention to the key idea; controlling other aspects

To seek patterns and relationships; make conjectures; generalise, extend /adapt methods;

What's the same; What's different?
What changes and what stays the same?
If I change this, what will happen to that?
How do you know?
What if…?

3

Different problems that can be worked in the same way as the previous problems, using the 'new' generalisation/extension

To recognise when and how to use the 'new' idea and use it flexibly and fluently in various contexts and transformations

What do I see?
What do I know?
What's the same; what's different?
How do I know what to do?
What if …?
What happens when?

How do you know?

4

Coordinate altogether symbols, connections, puzzles, extensions, representations and transformations of the new idea. Special cases to show strengths and limitations.

To embed the new idea in multiple ways before using it as a basis for future learning

Now I know this, what else do I know?
How does this connect to other ideas?
What it is/what it is not?
When it works/ does not work
How do you know?