**Differences between thinking and reasoning**

**Thoughts from Tower Hamlets day 3**

Thinking – exploring concept individually; Reasoning – Explaining your thinking to others with examples

You could think many things and it could take different rates, however when reasoning you must dig deeper and explain/justify your thoughts

Thinking happens more naturally/less organised; Reasoning is more purposeful and requires more effort.

Thinking – random and impulsive, less organised ideas; Reasoning – organised thinking, using thinking to clarify/move forward

Reasoning is to justify your thinking by making connections to previous learning ‘knowns’; Thinking is less structured and ideas can have less focus on explaining using knowledge and understanding to back up your ideas

Thinking can be ideas/possibilities/thoughts; Reasoning is the justification behind those thoughts/ideas.

Thinking is problem solving. Reasoning is validating the problem solving with known facts, knowledge and understanding.

Thinking can be just a passing thought however reasoning in my understanding is the reason or justification behind those thoughts.

Reasoning – to make connections, to give an explanation with evidence. Not make a definitive choice and give justification. Thinking – generate ideas, thoughts, possibilities.

Thinking – open ended, no end point, unstructured, no specific path of thought. Reasoning – convincing, proving, explaining a certain viewpoint. What if… A specific focus. Reasoning involves thinking. Thinking may not involve reasoning.

Thinking – children tackling the task to find a solution/answer. Reasoning – children explaining why, ow, what if, steps to the solution, difficulties

Reasoning is a deeper level of thinking – delving in and asking further questions e.g. why? How? When? What next?

Thinking is the ideas that can be applied. Reasoning is the understanding of

Reasoning is explaining your thinking. It’s acknowledging and understanding your processes and thoughts.

Being able to communicate the thinking to others. Understanding what you are thinking and knowing your processes.

Thinking is knowing a process. Reasoning requires a process/understanding/explanation of one’s thinking/problem solving.

Reasoning is bringing many ideas and knowledge together. Thinking is more linear with fewer neural connections.

Thinking – surface level. Reasoning – using knowledge from other maths areas, linking knowledge, explain, give reasons

Reasoning gives a reason for your thinking

Justification…. Because

Reasoning takes logical structure -> justification. Thinking is less linear. It often takes different directions/tangents.

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| **Thinking** | **Reasoning** |
| Individual | Explaining your thinking to others with examples |
| Happens more naturally/less organised/less structured, open ended, no specific path | More purposeful and requires more effort |
| Random and impulsive | Organised thinking |
| Ideas/possibilities/thoughts | The justification behind those thoughts/ideas, making connections |
| Thinking may not involve reasoning | Reasoning involves thinking |
|  | Deeper level of thinking – delving in and asking further questions e.g. why? How? When? What next? |