

## **Blank Levels for Maths**

### **What are Blank Levels?**

The Blank Language Scheme, also known as the Language of Learning model, was devised by Blank, Rose and Berlin (1978). The model separates language development into four levels, showing how children progress from concrete to abstract understanding of language. This framework can be used across the curriculum to assess and support the development of verbal reasoning skills.

### **Why use Blank Levels in maths?**

For some pupils, language comprehension can present a barrier to accessing maths lessons. Students may have difficulty remembering maths vocabulary, understanding complex sentence structures in written or verbal maths problems, or explaining their reasoning. The Blank Level framework enables teachers to assess a student's understanding of spoken language and then put appropriate support in place.

Examples of language support include:

- adapting spoken instructions so that the pupil understands what they are being asked to do
- reframing written questions so the pupil can access the task
- posing questions at the relevant Blank level to develop verbal reasoning skills and monitoring progress in comprehension over time
- using visuals to support vocabulary development
- pre-teaching new vocabulary

### **Blank Level One: Vocabulary Development (naming)**

Single word level – naming and understanding (e.g. pointing)

*In maths, language/question types might include:*

- Point to the triangle
- Name this shape
- Find another one like this (show a shape)

### **Blank Level Two: Concept development, phrases, early question words (describing)**

Here mathematical concepts could include those relating to shape, size, quantity, space/position, time, number.

Use early question words which do not require a full sentence response, such as what? where? who?

Any equipment/resources referred to must be on the table with the pupil; this is still the concrete stage of language development.

*In maths, language/question types might include:*

- Which is the longest piece of string?
- What goes with 3 to make 10?
- Which is the biggest bear?
- Which is the heaviest bear?
- Find the even number

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- What are you doing? (simple response)
- What is different about....?
- Where is the ....?
- Show me the red triangle (choosing from square, circle, triangle)
- Which number comes first?

### Blank Level Three: Understanding and using sentences (re-telling)

This is the sentence level of understanding and response, using different types of concrete sentences, e.g. instructions; description; questions.

Focus on lengthening sentences.

'How' questions can be introduced.

*In maths, language/question types might include:*

- Put the red cube next to the cuboid (instructions)
- Find me something that is not round (negatives)
- How are the prism and pyramid the same? (comparison)
- Tell me the order of your day (sequencing)
- Can you explain how you found your answer? (summary)
- What will you do next? (prediction – based on concrete experience)

### Blank Level Four: Verbal reasoning, inference, social understanding (justifying)

Here the student is encouraged to thinking beyond the stated information.

The focus is on using language to solve problems.

'Why?' questions requiring inference are introduced.

*In maths, language/question types might include:*

- What made the pattern look this way? (cause)
- How could you check your answer is correct? (problem-solving)
- How do you know that the answer is an even number? (inference)
- What happens if you change the numbers? (effect)
- Why will the numbers in the pattern increase? (justify a prediction)
- How will the teacher feel about your work? (viewpoint)

### Useful References and Links

Blank, M., Rose, S.A. & Berlin L.J. (1978). *The Language of Learning: The Preschool Years*. Grune & Stratton.

McLachlan, H. & Elks, L. (2012). *Language Builders*. Elklan. [www.elklan.co.uk](http://www.elklan.co.uk)

[Blank-level-2.pdf \(childspeechbedfordshire.nhs.uk\)](#)

[Online videos available e.g. Blank levels of Language \(Blank, Rose and Berlin\)](#)

#### **SEND OAP Toolkit resources**

Further information om Blank levels available here: [How to Guide - Blank Levels 2 \(detailed\)](#)

Further maths 'How to' guides are available here: [Cognition and Learning: Maths](#)