

# MATHS PGPS



# MATHS LESSONS AT PGPS

6 x 50 minute lessons are taught per week

4 x lessons explicitly focus on teaching 'Number and Algebra' content.

Mathematics Content Descriptions		
Number and Algebra	Measurement and Geometry	Statistics and Probability
Number and place value	Using units of measurement	Chance

2 x lessons explicitly focus on teaching 'Measurement and Geometry' or 'Statistics and Probability' content.

# STRUCTURE OF A MATHS LESSON

Number Fluency - (5-10 mins)

Launch – Including Learning Intention and Success Criteria. (10 mins)

Exploration - (25 - 30 mins)

Reflection - (5 -10 mins)

# NUMBER FLUENCY - EXPLAINED

Number Fluency at P.G.P.S refers to the start of every Numeracy lesson which tunes student's into maths concepts and learning.

It provides opportunities for students to experience multiple exposures of concepts and skills.

It can be done as a whole class or in small groups.

Sometimes it is related to the focus for the lesson, sometimes it isn't but it is always related to number.

The aim is for students to make connections, to be more efficient and accurate at recalling facts and to think and share ideas collaboratively.

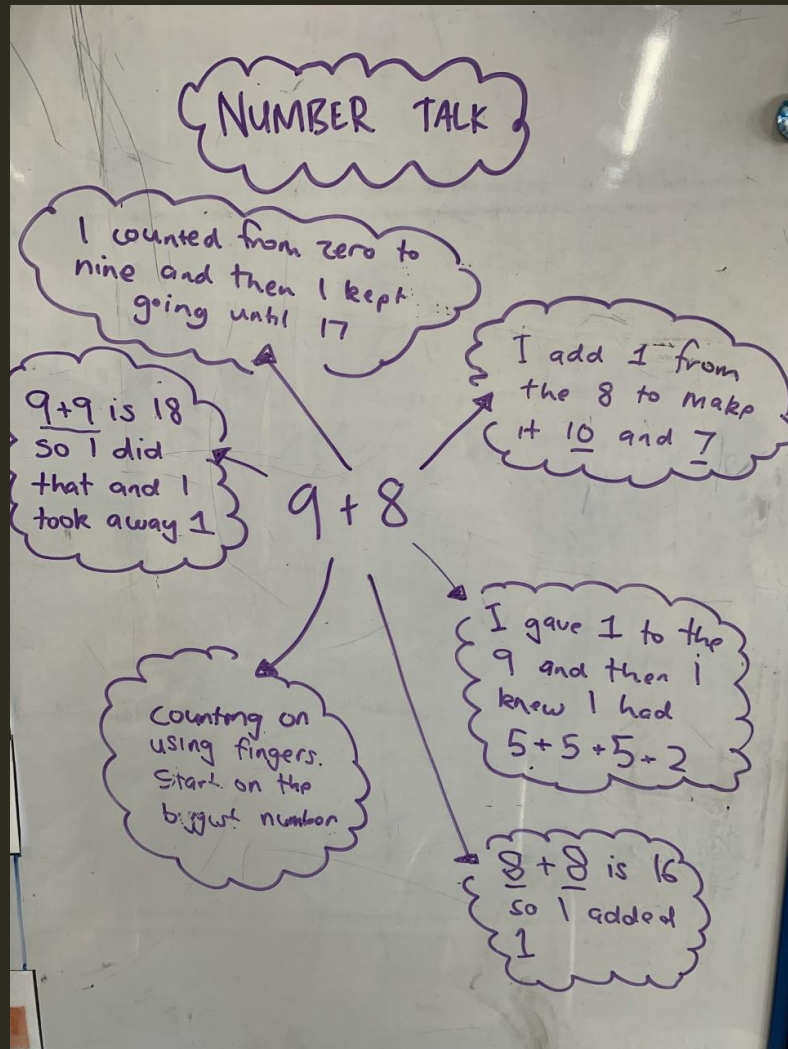
# NUMBER FLUENCY - EXAMPLES

## FLUENCY - WHICH ONE DOESN'T BELONG?

Why did you choose \_\_\_?

Is there another reason why \_\_\_ might not belong?

7	4
6	12



# LEARNING INTENTION & SUCCESS CRITERIA - EXPLAINED

The Learning Intention explains to students the purpose of the learning. It is the 'why?' of the lesson.

It is a description of what learners should know or be able to do by the end of the learning unit.

The Success Criteria helps the students and the teacher measure whether, and how well, learners have met the Learning Intention.

It helps students know how to be successful in the lesson and the learning they need to complete.

# LEARNING INTENTION & SUCCESS CRITERIA - EXAMPLE

Learning Intention: We are learning about addition and subtraction

Success Criteria: I can create number sentences using specific numbers.



# LAUNCH - EXPLAINED

In the Launch of a Maths lesson, the teacher is getting the students prepared to complete the learning in the Exploration part of the lesson.

It could include:

- Asking questions to find out what students already know about the topic
- Explaining important concepts, ideas or new vocabulary
- Modelling a skill
- Practising the task together before students explore it further in Exploration

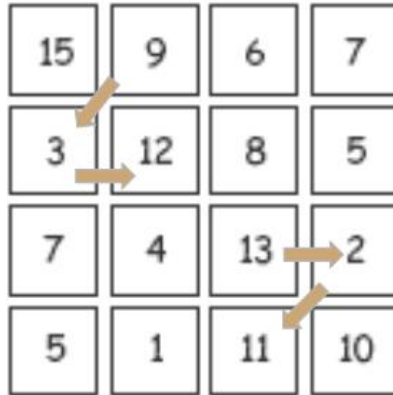




# LAUNCH — EXAMPLE

## Number boggle

15	9	6	7
3	12	8	5
7	4	13	2
5	1	11	10



EXAMPLE -  
 $9+3=12$   
 $13-2=11$

How many number sentences can you create using these numbers?

Challenge - Can you make number sentences with connecting numbers?

# EXPLORATION - EXPLAINED

In this part of the lesson students are trying to meet the Success Criteria.

They could do this in several different ways depending on the learning:

- Completing or exploring a task independently
- Working in a small group with other students (this could be like- or mixed-ability and with or without the teacher)
- Working with the teacher one-on-one to develop specific skills or understandings

The teacher could be working explicitly with students one-on-one or with a small group.

Sometimes there are also Education Support Staff members in the classroom to assist individual students or small groups.

# EXPLORATION - EXPLAINED CONT.

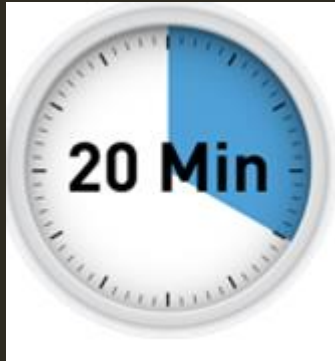
It is extremely important that learners at all levels are supported during the Exploration part of the lesson.

Extension questions or tasks are provided for students who need to be challenged further.

The teacher also provides support for students who may experience some difficulty with the task.

# EXPLORATION - EXAMPLE

YOUR TURN!



## Number boggle

15	9	6	7
3	12	8	5
7	4	13	2
5	1	11	10

Your turn - Use the boggle board to write as many number sentences as you can

Find this tricky? - Use counters to guide your count!

Need a challenge? Can you create a number sentence that involves 5 or more numbers?

# REFLECTION - EXPLAINED

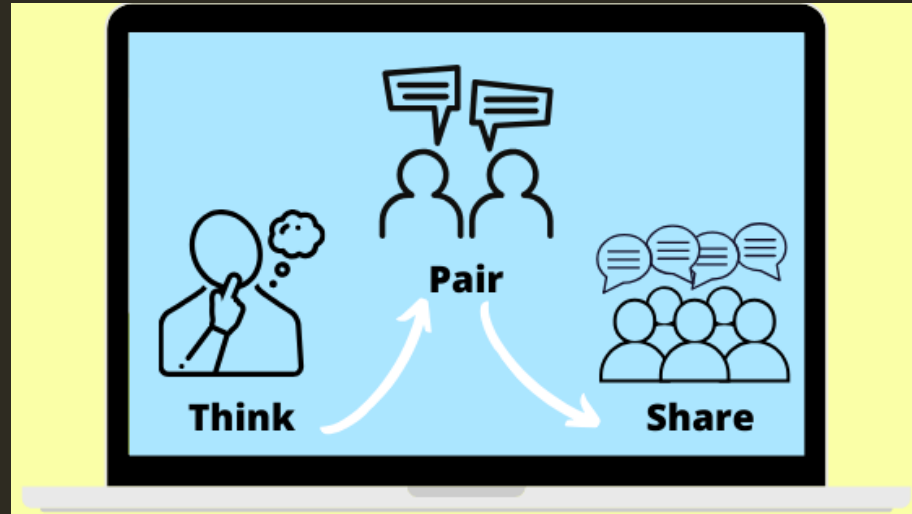
At the end of the lesson, it is important to reflect on the learning that has been explored.

This can involve:

- Correcting completed tasks and discussing answers as a whole class
- Asking questions such as “How did you get your answer?” or “Can you explain your thinking for us?” or “What makes you think that?” or “What strategies did you use?”
- Re-reading the Success Criteria and sharing if students think they were successful in that lesson (and if not, what can they try to improve on in the next Maths lesson)

It is about looking back at what has been achieved AND looking forward to the next learning steps you will explore.

# REFLECTION - EXAMPLE



Share a number sentence that you are proud of!