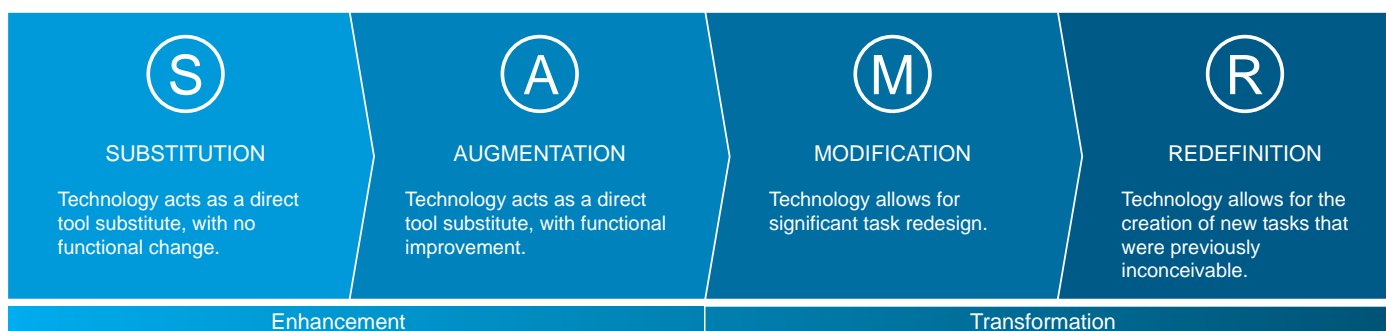# Teaching with LearnPads

Year 4

one tablet/child

INTRODUCTION

This book has been created to help teachers in Malta and Gozo use LearnPad tablets effectively in the classroom. Our aim is for it to be a useful document that teachers can pick up and refer to often, with a wealth of ideas and resources to support schools as they begin their journey on the One Tablet Per Child project.

The teaching ideas have been planned and designed by experienced teachers. They focus on using the tablet as a tool in the classroom to facilitate learning and improve digital literacy. We believe that technology should be used in context in the classroom and should be accessible to all, so we've also included a range of suggestions for differentiating your teaching for all students.

The planned activities have been carefully chosen to foster creativity and collaboration, guiding pupils and teachers through the process of embedding technology in their approach to learning. We recognise that this process requires support and scaffolding. We've referred to the SAMR model, which explains the different levels of embedding technology in education:

S	A	M	R
SUBSTITUTION	**AUGMENTATION**	**MODIFICATION**	**REDEFINITION**
Technology acts as a direct tool substitute, with no functional change.	Technology acts as a direct tool substitute, with functional improvement.	Technology allows for significant task redesign.	Technology allows for the creation of new tasks that were previously inconceivable.
Enhancement		Transformation	

Each section's cover page has teaching ideas that link to the four stages of the SAMR model. On these pages you'll also find a QR Key – scan this using your LearnPad Workbook to load a customised Lesson Profile, containing all the Apps and links you'll need for that section.

The LearnPad system is designed to make communication and feedback as easy as possible. Work can be viewed in real time by the teacher, or 'Handed In' wirelessly to ClassCloud. Teachers can send specific files or messages to students, and complete this feedback cycle – crucial for improving progress. Our ClassView technology also allows for seamless collaborative working in the classroom. Screens of all pupils' devices can be displayed simultaneously on the teacher's screen, creating a group workspace – or a single device can be shared full-screen, offering valuable prompts for discussion or peer-assessment.

We hope that this book will provide opportunities for you to open up creativity, collaboration and communication in your classroom, giving you the confidence to make the best use of these powerful tools. As education professional ourselves, we understand that a teacher's time is precious – that's why we've worked hard to make sure these lessons ideas are useful and practical. We're here to help make sure that your experience with Avantis technology is enjoyable and rewarding. Please get in touch if you have any feedback or queries.

Avantis Malta Education Team

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In the following section, you'll find differentiated activity ideas linked to all the Year 4 Outcomes for The Four Operations.

Scan the QR key to the right to launch the lesson profile on your LearnPad and explore the resources and tools we've chosen for this curriculum area.

S

SUBSTITUTION

Use the Number Grid template in WorkSpace to show how to subtract 10 by jumping up a row, then move along one for 9 or 11.

A

AUGMENTATION

Investigate: is it always, sometimes or never true that adding numbers a different order makes the same total? Why? Record findings using camera and WorkSpace.

M

MODIFICATION

Create and record a song or poem to teach younger children the rules of rounding.

R

REDEFINITION

Teacher Hands Out spreadsheet or document with column addition and subtraction problems to complete and Hand In; pupils can also demonstrate their understanding by screenshotting a finished problem and annotating in WorkSpace to show thinking.

Enhancement

Transformation

Outcome	Which App?	Practical Ideas for Pupils	Differentiation	
			Extra Support	Extra Challenge
I can add 100 or 1,000 to any whole number.	LEARNPAD	Quick-fire oral questions to start a lesson. Pupils write their answer in WorkSpace; teacher can view responses for instant assessment.	Provide arrow cards or other place value manipulatives to support concrete understanding.	Generalise: what will happen when you add 10,000 or 100,000? Why?
I can understand that I can add numbers in any order and get the same result.	LEARNPAD	Investigate: is it always, sometimes or never true that adding numbers a different order makes the same total? Why? Record findings using camera and WorkSpace.	Provide initial sets of numbers to try, in order to encourage a systematic approach.	Is this also the case for subtraction? Why not?
I can work out a small difference by counting up from the smaller to the larger number.	LEARNPAD	Use line tool to draw a blank number line and demonstrate finding the difference – perhaps teach a younger pupil.	Use manipulatives such as cubes to support; e.g. to find difference between 8 and 12, make two towers and place alongside one another.	Extend by using number facts to find larger differences; e.g. between 87 and 102 – 87 to 90 is 3, 90 to 100 is 10, 100 to 102 is 2; add these 'jumps' to find difference of 15.
I can understand that subtraction is the inverse of addition and vice versa. I can also state and write a subtraction statement corresponding to a given addition statement and vice versa; e.g. if 4 + 3 = 7 then 7 - 3 = 4 and vice versa.	📷	Create a video demonstrating and explaining this principle, using practical resources (cubes, Cuisenaire rods etc.).	Work in mixed-ability pairs or threes.	
I can add/subtract 9 or 11 by adding/ subtracting 10 and then adjusting by 1.	LEARNPAD	Change background and choose Template. Select Number Grid and use this to show how to subtract 10 by jumping up a row, then move along one for 9 or 11.	Ensure solid concrete understanding by using manipulatives or Number Pieces resource.	Generalise to larger numbers: now that you know how to add/subtract 9 or 11, what else do you know?

I can use column addition and subtraction with up to three-digit numbers.		Teacher Hands Out spreadsheet or document with column addition and subtraction problems to complete and Hand In; pupils can also demonstrate their understanding by screenshotting a finished problem and annotating in WorkSpace to show thinking.	Use manipulatives or Number Pieces to consolidate understanding of place value/carrying digits.	Create missing number problems for a partner to solve by column addition or subtraction.
I can work through situations involving addition and subtraction with two-digit numbers.		Practise skills by playing Deep Sea Duel – using mathematical thinking to be the first to reach the target number. Using numbers or calculations given by the teacher, record a 'number story' – placing the calculation in a context – and challenge a partner to solve the problem.	Work with the teacher first, who models playing Deep Sea Duel (via ClassView) and 'tells their thinking' as they do so.	Use Broken Calculator to extend mathematical thinking when adding and subtracting.
I can derive all pairs of 100 in multiples of 5 and 10. I can derive all number pairs that total 100. I can derive all pairs of multiples of 50 with a total of 1000. I can derive all pairs of multiples of 100 with a total of 1000.		Create a revision guide – how to find these pairs systematically.	Use manipulatives or Number Frames resource to ensure a solid understanding of pairs that make 5 or 10, then generalise to larger numbers.	What do these facts tell you about corresponding subtraction or division calculations?
I can understand that multiplication is multiple groups or repeated addition.		Use Number Frames to create an array to demonstrate this principle and practise with a range of multiplication calculations.	Also use counters or other manipulatives and practise counting in repeated groups.	Tackle missing number multiplication calculations; e.g. 4 x ? = 24.
I can understand that I can multiply numbers in any order and get the same result.		Investigate: is it always, sometimes or never true that multiplying numbers in a different order makes the same product? Why? Record findings using camera and WorkSpace.	Provide initial sets of numbers to try, in order to encourage a systematic approach.	Is this also the case for division? Why not?

I can understand division as equal sharing.		Nrich.maths.org activity: Lots of Lollies (see resource in Skills Practice category). May wish to use Number Frames or Number Line to clarify thinking.	Work in near-ability pairs, using manipulatives if necessary and choosing how to present work (can edit original document if necessary).	
I can understand division as equal grouping or repeated subtraction.		Help the teacher – how many ways can she place her class of 30 pupils into equal groups? Choose how to record and share your findings.	Work in mixed ability pairs.	
I can understand that division is the inverse of multiplication. I can also state and write a division statement corresponding to a given multiplication statement; i.e. 2, 3, 4, 5 and 10 multiplication facts, and vice versa; e.g. if 4 × 3 = 12 then 12 ÷ 3 = 4 and vice versa.		Create an animation to demonstrate relationship between multiplication and division using arrays (with counters or blocks) and by writing corresponding number statements.	Work in mixed-ability pairs.	
I can mentally multiply an integer by multiples of 10 and 100.		Quick-fire oral questions to start a lesson. Pupils write their answer in WorkSpace; teacher can view responses for instant assessment.	Use manipulatives such as place value arrow cards to support understanding.	Challenge yourself: how would the product be changed if you multiplied by 1000? What about by 20 instead of 10?
I can recognise unit fractions such as ½ and ¼ and use them to find fractions of shapes and numbers. I can also understand the relationship between fractions such as ½ and ¼ and division; e.g. ½ means 1 ÷ 2 and vice versa.		Change Background and choose Template and Fraction Wall. Label fractions to demonstrate equivalence.	Use alongside Cuisenaire rods to embed concept.	Begin to use this to add simple fractions.

I can double whole numbers up to 500.		Quick-fire oral questions to start a lesson. Pupils write their answer in WorkSpace; teacher can view responses for instant assessment.	Use manipulatives or resources such as Number Pieces to support.	How would you go about halving odd numbers?
I can halve even numbers up to 500.				
I can understand halving as the inverse of doubling.		Create a poster, presentation or video to show that halving and doubling are inverse operations.	Work in mixed-ability pairs.	
I can find remainders after division, restricted to dividends up to 100 and divisors up to 10.		Use Number Frames to divide numbers and find remainders.	Use practical resources first to consolidate understanding of equal groups/left over.	Extend by working with a partner: one thinks of a number, the other asks questions about its divisors and remainders to deduce it.
I can work through simple one-step situations using addition, subtraction, multiplication and/or division. I can also give a rough estimate of the answer of such situations and I can check the reasonableness of the answer.		Create a class project that requires real-life application of all four operations; (e.g. planning a school trip including costings, how many buses, time spent on each activity, how many snacks to bring).	Work in mixed ability groups to create a portfolio and presentation; vote on which group's strategy 'wins' and use it to plan the real field trip.	
I can round any whole two-digit number to the nearest ten and any three-digit number to the nearest hundred.		Create and record a song or poem to teach younger children the rules of rounding.	Work in a group with the teacher to scaffold ideas and check understanding.	Generalise: how would you apply these rules when rounding larger numbers?

I can find fractions of shapes and simple whole numbers.		Change background and choose Template. Select a shape and use line tool to create fractions and label them, justifying selections to make sure the parts are equal.	Use paper shapes and fold first to embed concrete understanding; teacher to check pupils are confident with idea of equal parts.	Apply this in a real-life context, such as planning a picnic where you've brought a cake/pizza and a set number of sandwiches; what fraction of the pizza will each person get? How many sandwiches?
I can read and interpret scales involving whole numbers.		Collect examples of scales in the school environment and at home; create a poster explaining how they are used.	Check pupils' understanding of intervals on scales before project.	Begin to use scales involving halves and quarters.

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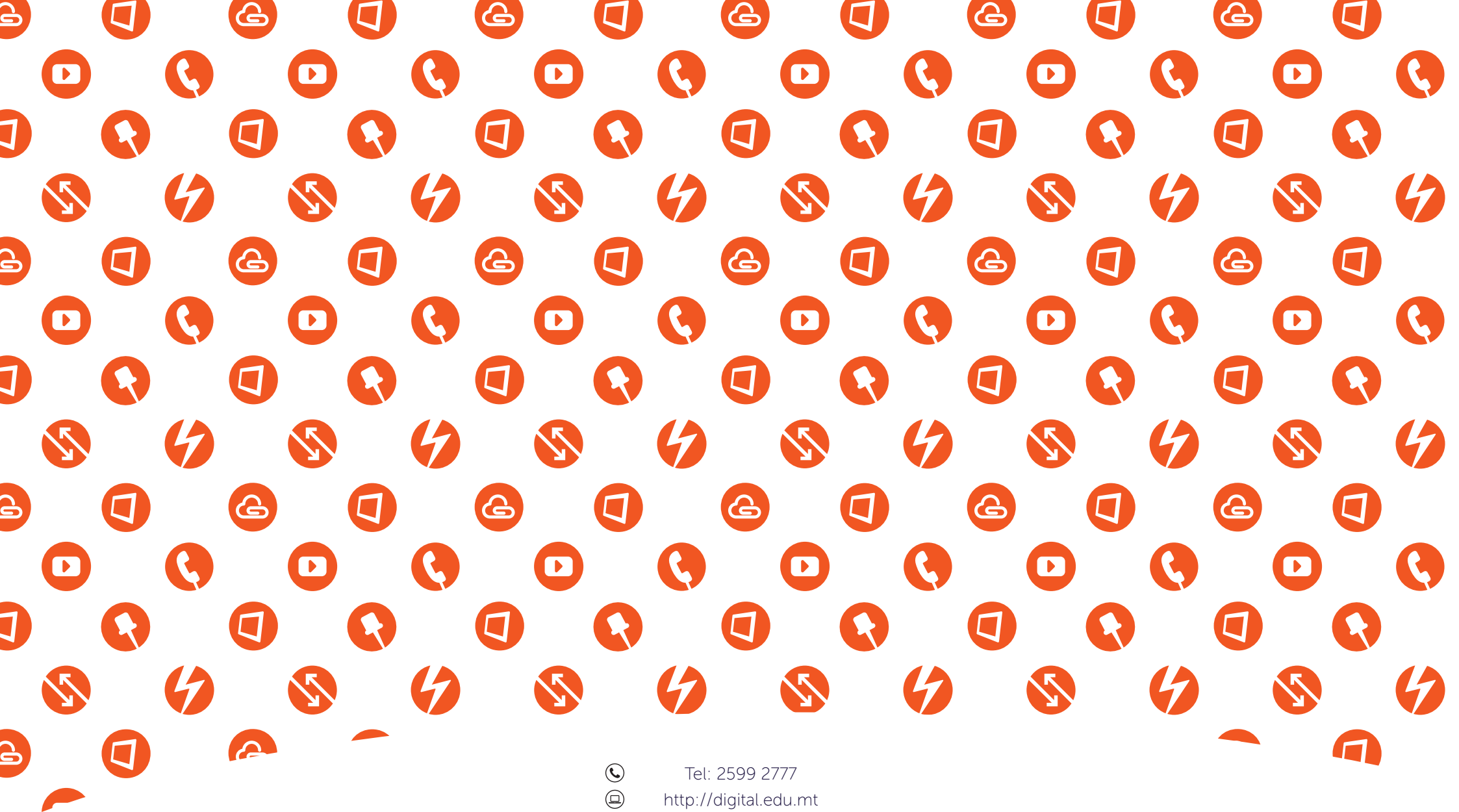
If you require any assistance, please contact us.