

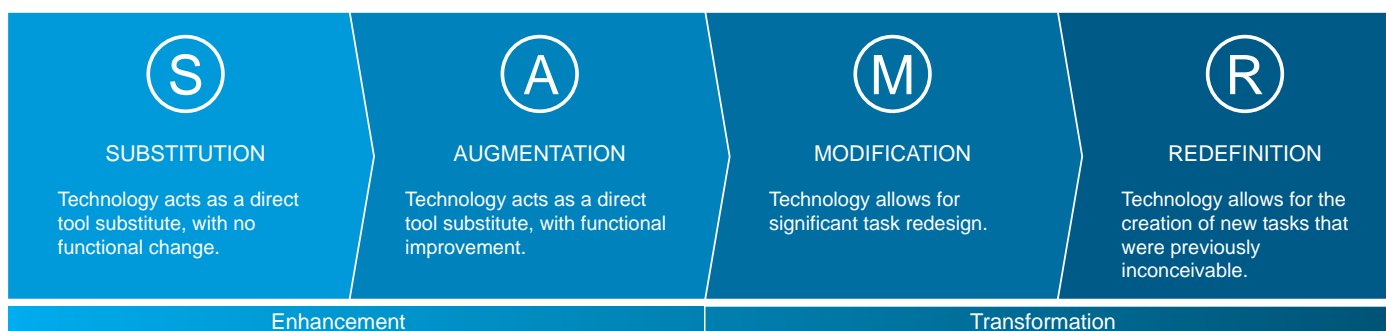


INTRODUCTION

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:



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.



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

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

Open Blank Grids file in LearnPad Office Suite and use to play a game of Battleship in pairs; each player places a shape, letter or picture to be their 'battleships'.

A

AUGMENTATION

Use the Venn Diagram background in WorkSpace to take photos of shapes and sort them by their properties.

M

MODIFICATION

Use SketchBook MobileX symmetry mode to draw a square – how many ways can you do it? Then switch out of symmetry mode to add the lines of symmetry to the image.







R








REDEFINITION






Add a photo to WorkSpace from the camera. Take a photo of a symmetrical object. Use eraser to cover half the photo, then send image to another pupil using ClassCloud for them to draw the other half.

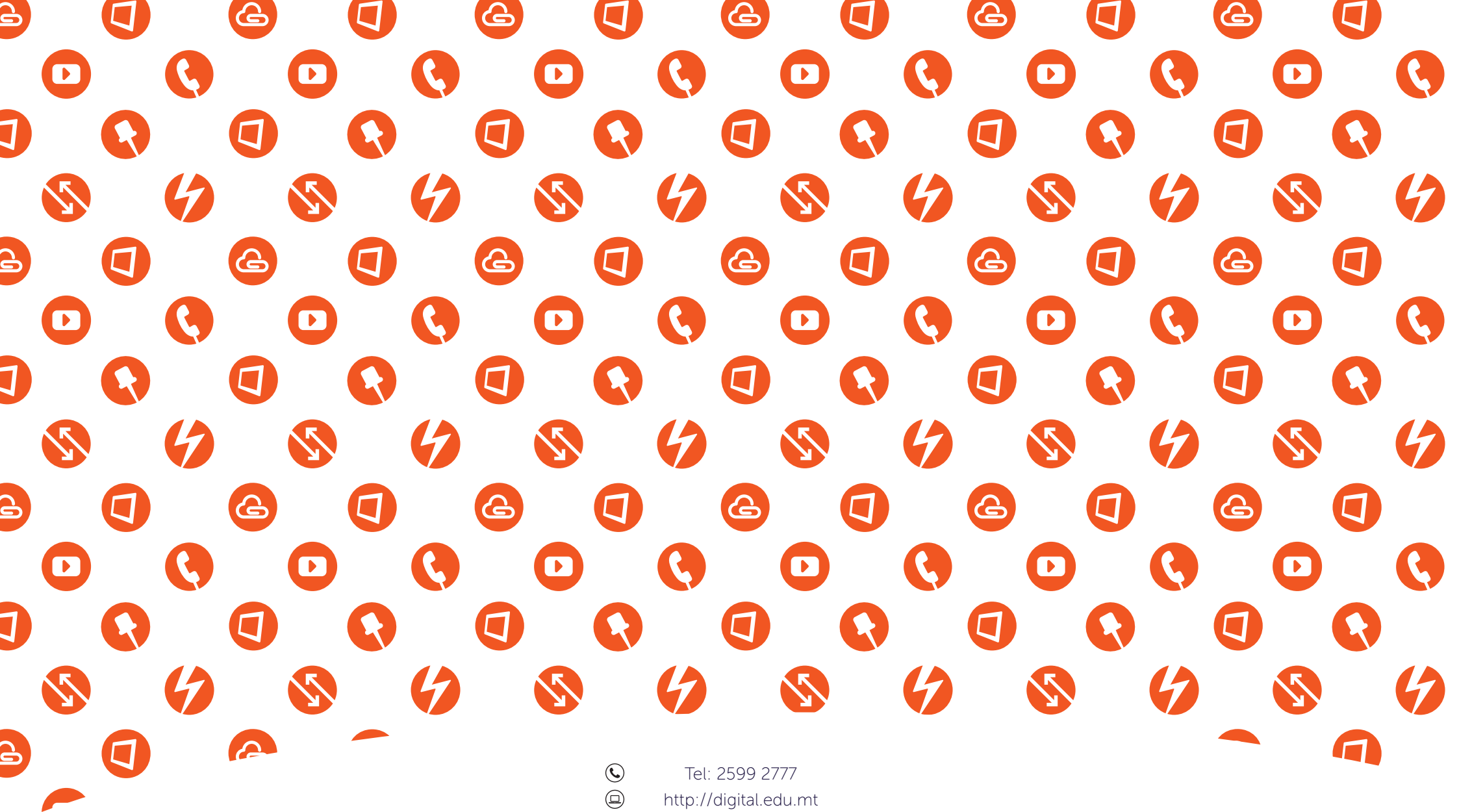
Enhancement

Transformation

Outcome	Which App?	Practical Ideas for Pupils	Differentiation	
			Extra Support	Extra Challenge
I can describe and draw pictures and patterns.		Create a repeating pattern using the shape tools.	Continue a pattern started by the teacher.	Create a more complex pattern and challenge a partner to continue it.
I can recognise, name, draw and describe the simple 2D shape: the triangle.		Use the line tool to draw triangles of various types.	Begin by using the triangle draw tool and move on to using lines.	Identify and sort types of triangles (right angle, equilateral, scalene).
I can recognise, name, sketch and describe the simple 2D shapes: the square and the rectangle.		Use the line tool to draw squares and rectangles, noting the difference between them.	Begin by using the rectangle draw tool and move on to using lines.	Use the shapes to create tessellating patterns, explaining why squares and rectangles create different patterns.
I can sort, and classify simple 2D shapes using their various properties.		Change the background and choose Template. Select Venn Diagram. Use shape tool or take photos, then sort by chosen criteria.	Use criteria given by the teacher; (e.g. more than 3 sides/contains a right angle).	Choose own criteria and challenge a partner to guess what they are.
I can recognise and name the simple 3D shapes: the cube and the cuboid.		Create a collection of photos of cubes and cuboids around school, then sort into cubes/cuboids, giving reasons.	Work with a teacher or adult initially to check any misconceptions/confusion between 2D/3D shapes.	Add other 3D shapes and label with properties (faces, vertices etc.).
I can understand what right, left, up and down mean and can move an object in each of these directions. I can also describe the movement of the object in each of these directions.		Use Logo to explore right and left, describing the movement of the turtle.	Work in a group with the teacher modelling correct use of language.	Explore this further using Scratch Jr to create own sequences of directions.

I can read and write the vocabulary related to position, direction and movement.		Write a sequence of movement instructions for a partner to follow and send them using ClassCloud; check their accuracy when they read and follow the instructions.	Play a game to reinforce vocabulary first; teacher holds up word card and pupils follow instruction; (e.g. 'forwards').	Draw a chalk 'maze' in the playground and challenge a partner to give accurate instructions to navigate it: record video using camera to review together.
I can describe and find the position of a square on a grid of squares with rows and columns labelled.		Open Blank Grids file and use to play a game of Battleship in pairs; each player places a shape, letter or picture to be their 'battleships'.	Work in mixed-ability pairs.	
I can recognise reflective symmetry in a square.		Use SketchBook MobileX symmetry mode to draw a square – how many ways can you do it? Then switch out of symmetry mode to add the lines of symmetry to your image.	Fold a paper square first to build concrete understanding.	Draw other shapes with reflective symmetry to create a collection of symmetrical shapes.
I can identify and draw lines of symmetry in simple 2D shapes.		Change background and choose Template, then choose a 2D shape. Use line tool to draw lines of symmetry.	Work with a mirror and objects first.	Begin to explore rotational symmetry using the shape tool.
I can recognise shapes with no, one and two lines of symmetry.		Use Symmetry Sorting and Symmetry Matching games to practise working with symmetrical shapes and images.	Use a mirror to support identification of lines of symmetry.	Create pictures with two lines of symmetry using Colouring tiles.
I can draw the other half of a simple symmetrical object inspired by examples of symmetry in nature.		Add a photo from the camera. Take a photo of a symmetrical object. Use eraser to cover half the photo, then send image to another pupil using ClassCloud for them to draw the other half.	Use a mirror to support.	Also explore using SketchBook MobileX to create symmetrical artwork.
I can describe right angle rotations.		Describe the movement of the turtle when it turns left or right; use this experience to record instructions for a partner containing right angle rotations.	Consolidate understanding of left and right first, plus clockwise and anticlockwise.	Link these rotations to degrees of turn; give your partner instructions using 90, 180 and 360 degrees.

I can show and label the four compass points.		Open Compass Points image and edit in WorkSpace; label the compass points, then practise giving instructions to a partner related to them; (e.g. draw a smiley face to the north).	Use a compass to relate to physical directions.	Add the four intercardinal points.
I can understand that a right angle is a quarter of a whole turn and can recognise such angles in 2D shapes and in the environment.		Use protractor tool in Pattern Shapes to find and measure right angles in 2D shapes, recognising that they show a 90° turn.	Go on a 'right angle hunt' around school; take photos and create a slideshow or collage.	Explore measuring other angles using the protractor.
I can make and describe right angle turns including turns between the four compass points.		Use Logo to introduce idea of right angle turn; extend by pupils working in pairs and giving verbal instructions to their partner to enter the correct instructions, using correct vocabulary.	Practise physically making the turns to consolidate understanding.	Import map of streets into WorkSpace; draw route and write or record corresponding directions using appropriate vocabulary/compass points.
I can recognise, measure and draw angles of 90° and 180° without the use of a protractor.		Explore creating angles using line tool in WorkSpace; how can you check whether it is truly a right angle or not without using a protractor?	Use protractor in Pattern Shapes first.	Explore and research the idea that 360° is a full turn; create a collage or presentation to explain this and how 90° and 180° relate.
I can compare an angle with a right angle.		Change the background and choose Templates. Choose a shape and label angles in the shape as larger or smaller than a right angle.	Use a set square to measure right angles on physical objects.	Send images of shapes/angles to peers using ClassCloud; sort onto Venn diagram template.

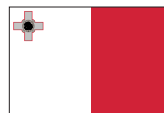


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Operational Programme II - European Structural and Investment Funds 2014-2020

"Investing in human capital to create more opportunities
and promote the well-being of society"

Project may be considered for part-financing by the European Social Fund

Co-financing rate: 80% European Union; 20% National Funds

