

2022 / 2023
SESSION



SEKOLAH MENENGAH KEBANGSAAN badak
BACHOK, KELANTAN.

**YEARLY LESSON PLAN
MATHEMATICS KSSM
FORM 2**

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MATHEMATICS KSSM FORM 2

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
LEARNING AREA : NUMBERS AND OPERATIONS TITLE : 1. PATTERNS AND SEQUENCES				HEBAT MODULE : 1	
WEEK 1 21 Mar - 26 Mar 2022	1.1 Patterns	1.1.1	Recognize and describe patterns of various number sets and objects based on real life situations, and hence make generalisation on pattern.	PL2	
	1.2 Sequences	1.2.1	Explain the meaning of sequence.	PL2	
		1.2.2	Identify and describe the pattern of a sequence, and hence complete and extend the sequence.	PL3	
WEEK 2 27 Mar - 02 Apr 2022	1.2 Patterns	1.3.1	Make generalisation about the pattern of a sequence using numbers, words and algebraic expressions.	PL4	
		1.3.2	Determine specific terms of a sequence.	PL3	
		1.3.3	Solve problems involving sequences.	PL4 PL5 PL6	
LEARNING AREA : RELATIONSHIP AND ALGEBRA TITLE : 2. FACTORISATION AND ALGEBRAIC FRACTIONS				HEBAT MODULE : 16, 17	
WEEK 3 03 Apr - 09 Apr 2022	2.1 Expansion	2.1.1	Explain the meaning of the expansion of two algebraic expressions.	PL2	
		2.1.2	Expand two algebraic expressions.	PL3	
		2.1.3	Simplify algebraic expressions involving combined operations, including expansion.	PL3	

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
		2.1.4	Solve problems involving expansion of two algebraic expressions.	PL4	
WEEK 4 10 Apr - 16 Apr 2022	2.2 Factorisation	2.2.1	Relate the multiplication of algebraic expressions to the concept of factors and factorisation, and hence list out the factors of the product of the algebraic expressions.	PL1 PL2	
		2.2.2	Factorise algebraic expressions using various methods.	PL1 PL2 PL3	
		2.2.3	Solve problems involving factorisation.	PL4	
WEEK 5 17 Apr - 23 Apr 2022	2.3 Algebraic Expressions and Laws of Basic Arithmetic Operations.	2.3.1	Perform addition and subtraction of algebraic expressions involving expansion and factorisation.	PL3	NUZUL AL-QURAN 19 APR
		2.3.2	Perform multiplication and division of algebraic expressions involving expansion and factorisation.	PL3	
		2.3.3	Perform combined operations of algebraic expressions involving expansion and factorisation.	PL3 PL5	
LEARNING AREA : RELATIONSHIP AND ALGEBRA TITLE : 3. ALGEBRAIC FORMULAE				HEBAT MODULE : 16, 17	
WEEK 6 24 Apr -30 Apr 2022	3.1 Algebraic Formulae	3.1.1	Write a formula based on a situation.	PL2	
		3.1.2	Change the subject of formula of an algebraic equation.	PL3	
		3.1.3	Determine the value of a variable when the value of another variable is given.	PL3	
		3.1.4	Solve problems involving formulae.	PL4 PL6	

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
WEEK 7 01 May - 07 May 2022	HARI RAYA AIDIL FITRI				
LEARNING AREA : MEASUREMENT AND GEOMETRY TITLE : 4. POLYGONS				HEBAT MODULE : 15	
WEEK 8 08 May - 14 May 2022	4.1 Regular Polygons	4.1.1	Describe the geometric properties of regular polygons using various representations.	PL1 PL2	
		4.1.2	Construct regular polygons using various methods and explain the rationales for the steps of construction.	PL2	
WEEK 9 15 May - 21 May 2022	4.2 Interior Angles and Exterior Angles Of Polygons	4.2.1	Derive the formula for the sum of interior angles of a polygon.	PL3	HARI WESAK 15 MAY
		4.2.2	Make and verify conjectures about the sum of exterior angles of a polygon.	PL2 PL3	
		4.2.3	Determine the values of interior angles, exterior angles and the number of sides of a polygon.	PL3	
		4.2.4	Solve problems involving polygons.	PL4 PL6	
LEARNING AREA : MEASUREMENT AND GEOMETRY TITLE : 5. CIRCLES				HEBAT MODULE : 29	
WEEK 10 22 May - 28 May 2022	5.1 Properties of Circles	5.1.1	Recognise parts of a circle and explain the properties of a circle.	PL1	
		5.1.2	Construct a circle and parts of the circle based on the conditions given.	PL2	
WEEK 11 29 May - 04 Jun 2022	SCHOOL BASED ASSESSMENT 1				

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
WEEK 12 05 Jun - 11 Jun 2022	1 st SEMESTER BREAK				
WEEK 13 12 Jun - 18 Jun 2022	5.2 Symmetrical Properties of Chords.	5.2.1	Verify and explain that i. diameter of a circle is an axis of symmetry of the circle; ii. a radius that is perpendicular to a chord bisects the chord and vice versa; iii. perpendicular bisectors of two chords intersect at the centre; iv. chords that are equal in length produce arcs of the same length and vice versa; v. chords that are equal in length are equidistant from the centre of the circle and vice versa	PL2	
WEEK 14 19 Jun - 25 Jun 2022		5.2.2	Determine the centre and radius of a circle by geometrical construction	PL3	
		5.2.3	Solve problems involving symmetrical properties of chords.	PL4	
WEEK 15 26 Jun - 02 Jul 2022	5.3 Circumference and Area of a Circle.	5.3.1	Determine the relationship between circumference and diameter of a circle, and hence define π and derive the circumference formula.	PL3 PL1	
		5.3.2	Derive the formula for the area of a circle.	PL3 PL1	
		5.3.3	Determine the circumference, area of a circle, length of arc, area of a sector and other related measurements.	PL3	
		5.3.4	Solve problems involving circles.	PL4 PL5	

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
LEARNING AREA : MEASUREMENT AND GEOMETRY TITLE : 6. THREE DIMENSIONAL GEOMETRICAL SHAPES				HEBAT MODULE : 27, 28	
WEEK 16 03 Jul - 09 Jul 2022	6.1 Geometric Properties of Three Dimensional Shapes	6.1.1	Compare, contrast and classify three dimensional shapes including prisms, pyramids, cylinders, cones and spheres, and hence describe the geometric properties of prisms, pyramids, cylinders, cones and spheres.	PL1 PL2	
	6.2 Nets of Three Dimensional Shapes	6.2.1	Analyse various nets including pyramids, prisms, cylinders and cones, and hence draw nets and build models.	PL3	
WEEK 17 10 Jul - 16 Jul 2022	6.3 Surface Area of Three Dimensional Shapes	6.3.1	Derive the formulae of the surface areas of cubes, cuboids, pyramids, prisms, cylinders and cones, and hence determine the surface areas of the shapes.	PL3	
		6.3.2	Determine the surface area of spheres using formula.	PL3	
		6.3.3	Solve problems involving the surface area of three dimensional shapes.	PL4	
WEEK 18 17 Jul - 23 Jul 2022	6.4 Volume of Three Dimensional Shapes	6.4.1	Derive the formulae of the volumes of prisms and cylinders, and hence derive the formulae of pyramids and cones.	PL3	
		6.4.2	Determine the volume of prisms, cylinders, cones, pyramids and spheres using formulae.	PL3	
		6.4.3	Solve problems involving the volume of three dimensional shapes.	PL3 PL4 PL5	

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
LEARNING AREA : RELATIONSHIP AND ALGEBRA TITLE : 7. COORDINATES				HEBAT MODULE : 23, 26, 30	
WEEK 19 24 Jul - 30 Jul 2022	7.1 Distance in the Cartesian Coordinate System	7.1.1	Explain the meaning of distance between two points on the Cartesian plane.	PL2	AWAL MUHARRAM 30 JUL
		7.1.2	Derive the formula of the distance between two points on the Cartesian plane.	PL2	
		7.1.3	Determine the distance between two points on the Cartesian plane.	PL2 PL3	
		7.1.4	Solve problems involving the distance between two points in the Cartesian coordinate system.	PL3 PL4	
WEEK 20 31 Jul - 06 Aug 2022	7.2 Midpoint in the Cartesian Coordinate System	7.2.1	Explain the meaning of midpoint between two points on the Cartesian plane.	PL1	
		7.2.2	Derive the formula of the midpoint between two points on the Cartesian plane.	PL2	
		7.2.3	Determine the coordinates of midpoint between two points on the Cartesian plane.	PL2 PL5	
		7.2.4	Solve problems involving midpoint in the Cartesian coordinate system.	PL4	
	7.3 The Cartesian Coordinate System	7.3.1	Solve problems involving Cartesian coordinate system	PL4 PL5	
LEARNING AREA : RELATIONSHIP AND ALGEBRA TITLE : 8. GRAPH OF FUNCTIONS				HEBAT MODULE : 8, 10	
WEEK 21 07 Aug - 13 Aug 2022	8.1 Functions	8.1.1	Explain the meaning of functions.	PL1 PL2	

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
		8.1.2	Identify functions and provide justifications based on function representations in the form of ordered pairs, tables, graphs and equations.	PL1 PL2 PL3	
WEEK 22 14 Aug - 20 Aug 2022	8.2 Graphs of Functions	8.2.1	Construct tables of values for linear and non-linear functions, and hence draw the graphs using the scale given.	PL2 PL3	
		8.2.2	Interpret graphs of functions.	PL3	
		8.2.3	Solve problems involving graphs of functions	PL5	
WEEK 23 21 Aug - 27 Aug 2022	SCHOOL BASED ASSESSMENT 2				
WEEK 24 28 Aug - 03 Sep 2022	SCHOOL BASED ASSESSMENT 2				
WEEK 25 04 Sep - 10 Sep 2022	2 nd SEMESTER BREAK				
LEARNING AREA : RELATIONSHIP AND ALGEBRA TITLE : 9. SPEED AND ACCELERATION				HEBAT MODULE : -	
WEEK 26 11 Sep - 17 Sep 2022	9.1 Speed	9.1.1	Explain the meaning of speed as a rate involving distance and time.	PL1 PL2	HARI MALAYSIA 16 SEP
		9.1.2	Describe the differences between uniform and non-uniform speed.	PL3	
		9.1.3	Perform calculation involving speed and average speed including unit conversion.	PL3	

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
		9.1.4	Solve problems involving speed	PL4 PL5	
WEEK 27 18 Sep - 24 Sep 2022	9.2 Acceleration	9.2.1	Explain the meaning of acceleration and deceleration as a rate involving speed and time.	PL1 PL3	
		9.2.2	Perform calculations involving acceleration including unit conversion.	PL3	
		9.2.3	Solve problems involving acceleration.	PL4 PL5 PL6	
LEARNING AREA : RELATIONSHIP AND ALGEBRA TITLE : 10. GRADIENT OF A STRAIGHT LINE				HEBAT MODULE : 14	
WEEK 28 25 Sep - 01 Oct 2022	10.1 Gradient	10.1.1	Describe gradient and direction of inclination based on real life situations, and then explain the meaning of gradient as a ratio of vertical distance to horizontal distance.	PL1 PL2	
		10.1.2	Derive the formulae for gradient of a straight line in the Cartesian plane.	PL1 PL3	
		10.1.3	Make generalisation for the gradient of a straight line.	PL2	
		10.1.4	Determine the gradient of a straight line.	PL4	
		10.1.5	Solve problems involving the gradient of a straight line.	PL5 PL6	
LEARNING AREA : MEASUREMENT AND GEOMETRY TITLE : 11. ISOMETRIC TRANSFORMATION				HEBAT MODULE : 15, 19, 20	
WEEK 29 02 Oct - 08 Oct 2022	11.1 Transformations	11.1.1	Describe the changes of shapes, sizes, directions and orientations of an object under a transformation, and hence explain the idea of one-to-one correspondence between points in a transformation.	PL1	

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
		11.1.2	Explain the idea of congruency in transformations.	PL1	
	11.2 Translasi	11.2.1	Recognize a translation.	PL1	
		11.2.2	Describe translation by using various representations including vector form.	PL2 PL3	
		11.2.3	Determine the image and object under a translation.	PL3	
		11.2.4	Solve problems involving translation.	PL3	
WEEK 30 09 Oct - 15 Oct 2022	11.3 Reflection	11.3.1	Recognise a reflection.	PL1 PL2	MAULIDUR RASUL 9 OCT
		11.3.2	Describe reflection using various representations.	PL2	
		11.3.3	Determine the image and object under a reflection.	PL3	
		11.3.4	Solve problems involving reflection.	PL3	
WEEK 31 16 Oct - 22 Oct 2022	11.4 Rotation	11.4.1	Recognise a rotation.	PL1	
		11.4.2	Describe rotation using various representations.	PL2	
		11.4.3	Determine the image and object under a rotation.	PL3	
		11.4.4	Solve problems involving rotation.	PL3	
WEEK 32 23 Oct - 29 Oct 2022	11.5 Translation, Reflection and Rotation as an Isometry	11.5.1	Investigate the relationship between the effects of translation, reflection and rotation and the distance between two points on an object and image, and hence explain isometry.	PL2	DEEPAVALI 24 OCT
		11.5.2	Explain the relationship between isometry and congruency.	PL2 PL3	
		11.5.3	Solve problems involving isometry and congruency.	PL4	
	11.6 Rotational Symmetry	11.6.1	Explain rotational symmetry.	PL2	

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
		11.6.2	Determine the degree of rotational symmetry of an object.	PL3	
LEARNING AREA : STATISTICS AND PROBABILITY TITLE : 12. MEASURES OF CENTRAL TENDENCIES				HEBAT MODULE : 4, 5, 12	
WEEK 33 30 Oct - 05 Nov 2022	12.1 Measures of Central Tendencies	12.1.1	Determine the mode, mean and median of a set of ungrouped data	PL1 PL2	
		12.1.2	Make conclusions about the effect of changes in a set of data to the value of mode, mean and median.	PL3	
		12.1.3	Collect data, construct and interpret the frequency table for grouped data.	PL3	
		12.1.4	Determine the modal class and mean of a set of grouped data.	PL3 PL4	
WEEK 34 06 Nov - 12 Nov 2022		12.1.5	Choose and justify the appropriate measures of central tendencies to describe the distribution of a set of data, including those with extreme values.	PL3	KEP. SULTAN KEL 11-12 NOV
		12.1.6	Determine mode, mean and median from data representations.	PL3 PL4	
		12.1.7	Apply the understanding of measures of central tendencies to make predictions, form convincing arguments and make conclusions.	PL5 PL6	
LEARNING AREA : STATISTICS AND PROBABILITY TITLE : 13. SIMPLE PROBABILITY				HEBAT MODULE : 2	
WEEK 35 13 Nov - 19 Nov 2022	13.1 Experimental Probability	13.1.1	Perform simple probability experiments, and hence state the ratio frequency of an event number of trials as the experimental probability of an event.	PL1	

WEEK	CONTENT STANDARD	LEARNING STANDARD		PL	REMARKS
	13.2 Probability Theory involving Equally Likely Outcomes	13.1.2	Make conclusions about the experimental probability of an event when the number of trials are large enough.	PL2	
		13.2.1	Determine the sample space and events of an experiment.	PL2	
		13.2.2	Construct probability models for an event, and hence make connection between theoretical probability and experimental probability.	PL4	
		13.2.3	Determine the probability of an event.	PL4	
WEEK 36 20 Nov - 26 Nov 2022	13.3 Probability of the Complement of an Event	13.3.1	Describe the complement of an event in words and by using set notations.	PL2	
		13.3.2	Determine the probability of the complement of an event	PL3 PL4	
WEEK 37 27 Nov - 03 Dec 2022	13.4 Simple Probability	13.4.1	Solve problems involving the probability of an event.	PL5 PL6	
WEEK 38 04 Dec - 10 Dec 2022	3 rd SEMESTER BREAK				
WEEK 39 11 Dec - 17 Dec 2022	3 rd SEMESTER BREAK				
WEEK 40 18 Dec - 24 Dec 2022	3 rd SEMESTER BREAK				
WEEK 41 25 Dec - 31 Dec 2022	3 rd SEMESTER BREAK				
WEEK 42 01 Jan - 07 Jan 2023	REVISION				

WEEK	CONTENT STANDARD	LEARNING STANDARD	PL	REMARKS
WEEK 43 08 Jan - 14 Jan 2023	REVISION			
WEEK 44 15 Jan - 21 Jan 2023	REVISION			
WEEK 45 22 Jan - 28 Jan 2023	REVISION			
WEEK 46 29 Jan - 04 Feb 2023	REVISION			
WEEK 47 05 Feb - 11 Feb 2023	SCHOOL BASED ASSESSMENT 3			
WEEK 48 12 Feb - 18 Feb 2023	SCHOOL BASED ASSESSMENT 3			
19 Feb - 11 Mar 2023	END OF 2022/ 2023 ACADEMIC SESSION BREAK			