

### SUBJECT: Mathematics

## UNIT: <u>3</u>

COURSE: Sixth

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DATE: July 7<sup>th</sup> 2025

TEACHER: Ibeth Becerra, Lyda Escobar

TITLE:

PERCENT CHANGE, PROBABILITY AND COMPOSITE AREA

## THROUGHLINES:

- 1. How can you use percents to describe change?
- 2. How can you rewrite expressions to help you solve markup and markdown problems

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- 3. How can you describe the likelihood of an event using probability?
- 4. How can you use experimental and theoretical probability to solve real-world problems?
- 5. How do you find the area of composite figures?

# **GENERATIVE TOPIC**

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#### Summer Peace!

## UNDERSTANDING GOALS:

The student will calculate percentage increase or decrease using problems involving percent from one quantity to another to apply percentage change and work out the percentage increase or decrease, in that way can solve word problems where a percentage change is	The student will demonstrate and explain how to rewrite expressions to solve markup and markdown problems. Calculating tips, sales tax and simple interest computing a resulting total, the simple interest and new balance earned in an investment or on a loan to estimate	The student will analyze the probability of simple and compound events by discovering and evaluating some predictions of outcomes to use the results of these experiments and make predictions about the situations, in that way can conduct experiments	The student will predict experimental and theoretical probabilities by writing ratios, using a sample and find the expected value to understand the difference between theoretical and experimental probability, so can use experimental probabilities and	The student will find the area of individual and composite figures by using different formulas of 2D shapes to find the area of composite figures where two or more shapes have been composed together, in that way can solve real-world and mathematical problems involving
nercentage change	tax and simple	outcomes to use the	understand the	figures where two or
percentage change and work out the percentage increase or decrease, in that way can solve word problems where a	tax and simple interest computing a resulting total, the simple interest and new balance earned in an investment or	outcomes to use the results of these experiments and make predictions about the situations, in that way can	understand the difference between theoretical and experimental probability, so can use experimental	figures where two or more shapes have been composed together, in that way can solve real-world and mathematical
, percentage change is	on a loan to estimate	conduct experiments	probabilities and	problems involving
included in the context.	the tip for the total bill and discounts, so can solve practical problems involving	to model real-world situations.	make inferences about particular scenarios.	area.
	consumer applications.			

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	UNDERSTANDING PERFORMANCES	TIME	ASSESSMENT	
	ACTIONS		WAYS	CRITERIA
Exploration Stage	<ul> <li>To introduce percentage change and percentage increase or decrease with their application in real life.</li> <li>To model tips, sales tax and simple interest and how they are used in our daily lives.</li> <li>To model the probability of simple and compound events using predictions.</li> <li>To model the probability of simple and compound events using predictions.</li> <li>To model the probability of simple and compound events using predictions.</li> <li>To introduce the area of individual and composite figures and its application in real world context.</li> <li>Synthesis project progress:</li> <li>Week 1-2: Each form tutor will show the project goal and ODS for the term. Then, he/she will make groups of 5-6 students in order to share the topics for each section of the magazine.</li> </ul>	1 week	<ul> <li>Analyzing possible difficulties that can appear on the activities.</li> <li>Offering another opportunity to compare theoretical and experimental probabilities using a number cube.</li> <li>Representing and solving problems involving proportional relationships.</li> <li>Giving arguments that generalize the order of the operations.</li> <li>Using experimental probability to make a prediction</li> <li>Drawing a figure on a grid and then trade the figure with their partners.</li> </ul>	<ul> <li>Interacts by means of oral language</li> <li>Registers the results of each exploring activity in the notebooks.</li> <li>Arguments with mathematical reasons and arguments.</li> </ul>
Guided Stage	<ul> <li>To solve problems involving percent.</li> <li>To solve mark-up and markdown problems.</li> <li>To use percent to find sales tax, tips, total cost, simple interest.</li> <li>To find the probability of a simple eventand its complement.</li> <li>To find experimental probabilities of simple and compound events.</li> <li>To use experimental probability tomake a prediction.</li> <li>To find the area of composite figures.</li> </ul> Synthesis project progress: Week 3: Students will start the magazine cover and editorial design for their magazine about peace, diversity and coexistence. Week 4: Students will start to collect data in order to apply a survey about school coexistence. Week 5: Students will search and analyse information about how stress affects the body and the mind. Week 7: In the poster with respect messages and notes, students will make and include phrases with greetings and courtesy expressions in French.	6 Weeks	<ul> <li>Participating in group and individual workshop.</li> <li>Working in pairs to solve increase and decrease percent problems by addressing the stages of the heuristic model of the area.</li> <li>Solving activities from the book "common core progress 7", that reinforce the concept and also allow students to perform an individual practice.</li> <li>Using the platform Khan academy in order to reinforce not only what was studied in class but also elements that teacher considers necessary to continue the topic</li> </ul>	<ul> <li>Proposes and solving problems using specific process and models.</li> <li>Uses different methods and models to help finding the solutions to problems situations.</li> <li>Argues the resolution of math problems.</li> <li>Uses the appropriate materials for activities.</li> </ul>

Summer Peace!This project will be based on the creation of a school magazine about peace, diversity and coexistence in which students will collect, analyse and include information related to peace, diversity and coexistence taking into consideration the school daily experiences.Learning EvidenceWeek 8: During the week, students will develop the following activities: • A sport circuit to solve school situations. • Present the magazine draft. • Start the design of the digital magazine.	1 week	<ul> <li>Proposing questions about the topics seen in class.</li> <li>Creating visual aids to complete the challenges</li> </ul>	- Interacts by means of oral language
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