

Module 6: Statistics

(Trimester 3: 25 Days)

Topic A	Understanding Distributions		6.SP.1 6.SP.2 6.SP.4 6.SP.5
Topic B	Summarizing a Distribution that Is Approximately Symmetric Using the Mean and Mean Absolute Deviation		6.SP.2 6.SP.3 6.SP.4 6.SP.5
Topic C	Summarizing a Distribution that is Skewed Using the Median and the Interquartile Range		6.SP.2 6.SP.3 6.SP.4 6.SP.5
Topic D	Summarizing and Describing Distributions		6.SP.4 6.SP.5
ASSESSMENT	Project	Reporting Strand: Understands statistical variability and distributions	Report Card: 0-4

6.SP.A.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, “How old am I?” is not a statistical question, but “How old are the students in my school?” is a statistical question because one anticipates variability in students’ ages.*

6.SP.A.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.

6.SP.A.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.

6.SP.B.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.

6.SP.B.5 Summarize numerical data sets in relation to their context, such as by:

- a. Reporting the number of observations.
- b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
- c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
- d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Reporting Strand: Understands statistical variability and distributions

CCSS	4 – Mastery	3- Proficient	2 – Basic	1 – Below Basic	0 – No Evidence
6.SP.1	Can extend thinking beyond the standard, including tasks that may involve one of the following: • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving	Creates a question that is statistical using variability	Given a question, can identify if it is statistical using variability.		Little evidence of reasoning or application to solve the problem Does not meet the criteria in a level 1
6.SP.2		Identify <u>all of</u> the following parts in a data set: <ul style="list-style-type: none">• Center• Spread• Overall shape	Identify <u>2</u> the following parts in a data set: <ul style="list-style-type: none">• Center• Spread• Overall shape	Identify <u>1</u> the following parts in a data set: <ul style="list-style-type: none">• Center• Spread• Overall shape	
6.SP.3, 6.SP.5c		Determine <u>all</u> of the following for a set of data <ul style="list-style-type: none">• Mean• Median• Mode• Range• Interquartile range• Mean absolute deviation	Determine <u>5</u> of the following for a set of data <ul style="list-style-type: none">• Mean• Median• Mode• Range• <u>Interquartile range</u>• <u>Mean absolute deviation</u>	Determine the following for a set of data <ul style="list-style-type: none">• Mean• Median• Mode• Range	
6.SP.4		Display data in the following <u>3</u> formats <ul style="list-style-type: none">• Dot plots• Histograms• Box plots	Display data in <u>2</u> of the following formats <ul style="list-style-type: none">• Dot plots• Histograms• Box plots	Display data in <u>1</u> of the following formats <ul style="list-style-type: none">• Dot plots• Histograms• Box plots	
6.SP.5		Summarize numerical data by finding <u>all</u> of the following, in context of the situation: <ul style="list-style-type: none">• the attribute being measured• how it was measured• unit of measurement• the number of observations• determines patterns and deviations• determines the best measure of centers	Summarize numerical data by finding <u>4</u> of the following, in context of the situation: <ul style="list-style-type: none">• the attribute being measured• how it was measured• unit of measurement• the number of observations• determines patterns and deviations• determines the best measure of centers	Summarize numerical data by finding <u>2</u> of the following: <ul style="list-style-type: none">• the attribute being measured• how it was measured• unit of measurement• the number of observations• determines patterns and deviations• determines the best measure of centers	

Comprende la variabilidad estadística y distribuciones

CCSS	4 – Dominio	3- Apto	2 – Básico	1 – Por debajo de lo Básico	0 – No hay Evidencia
6.SP.1		Crea una pregunta que es estadística usando la variabilidad.	Dada una pregunta puede identificar si es estadística usando variabilidad		
6.SP.2		Identifica <u>todas</u> las partes siguientes en un conjunto de datos: <ul style="list-style-type: none">• Centro• Dispersión• Forma general	Identifica <u>dos</u> de las partes siguientes en un conjunto de datos: <ul style="list-style-type: none">• Centro• Dispersión• Forma general	Identifica una de las partes siguientes en un conjunto de datos: <ul style="list-style-type: none">• Centro• Dispersión• Forma general	
6.SP.3, 6.SP.5c	Puede pensar más allá del estándar, incluyendo tareas que puedan involucrar uno de los siguientes aspectos: <ul style="list-style-type: none">• Diseñar• Conectar• Sintetizar• Aplicar• Justificar• Criticar• Analizar• Crear• Demostrar	Determina <u>todo</u> de lo siguiente de un conjunto de datos: <ul style="list-style-type: none">• Promedio• Mediana• Moda• Rango• Rango Intercuartil• Desviación Media Absoluta	Determina <u>cinco</u> de los siguientes de un conjunto de datos: <ul style="list-style-type: none">• Promedio• Mediana• Moda• Rango• <u>Rango Intercuartil</u>• <u>Desviación Media Absoluta</u>	Determina lo siguiente de un conjunto de datos: <ul style="list-style-type: none">• Promedio• Mediana• Moda• Rango	
6.SP.4		Muestran e interpretan datos numéricos <u>en todos los siguientes formatos</u> <ul style="list-style-type: none">• diagramas de punto• histogramas• diagramas de caja	Muestran e interpretan datos numéricos <u>en dos de los siguientes formatos</u> <ul style="list-style-type: none">• diagramas de punto• histogramas• diagramas de caja	Muestran e interpretan datos numéricos <u>en uno de los siguientes formatos</u> <ul style="list-style-type: none">• diagramas de punto• histogramas• diagramas de caja	Hay poca evidencia de razonamiento o aplicación para resolver el problema No reúne los criterios del nivel 1
6.SP.5		Resume datos numéricos hallando todo lo siguiente <u>en el contexto de la situación</u> : <ul style="list-style-type: none">• el número de observaciones• el atributo medido• cómo fue medido• unidad de medida• determina patrones y desviaciones• determina la medida mejor de centros	Resume datos numéricos hallando cuatro de los siguientes <u>en el contexto de la situación</u> : <ul style="list-style-type: none">• el número de observaciones• el atributo medido• cómo fue medido• unidad de medida• determina patrones y desviaciones• determina la medida mejor de centros	Resume datos numéricos hallando dos de los siguientes <u>en el contexto de la situación</u> : <ul style="list-style-type: none">• el número de observaciones• el atributo medido• cómo fue medido• unidad de medida• determina patrones y desviaciones• determina la medida mejor de centros	