NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Proctor Guide—Supplement

NSCAS Spring 2021 Assessments

2020-2021

About This Supplement

There are several documents to support educators in administering the NSCAS assessments. The *Proctor Guide—State-Level Testing* is intended to support educators in understanding how to prepare for testing and proctor the assessment. This supplement is an additional document intended to support Nebraska educators with specific, Nebraska-related tasks and to serve as a single document with resources created specifically for NSCAS.

Table of Contents

Desmos Calculator 3
Hot Text Functionality 4
Mathematics Reference Sheets- English 5
Mathematics Reference Sheets- Spanish 9

Nebraska desmos

Desmos is on the NSCAS Assessments!

Grade 6: Four-Function Calculator | www.desmos.testing/nebraska/fourfunction

Grades 7-8: Scientific Calculator | www.desmos.com/testing/nebraska/scientific

Scientific Calculator

The scientific calculator is different from the standard Desmos scientific calculator freely available on the app stores (iOS® and Android™) and on the Desmos homepage.

The scientific calculator differs in the following ways:

Feature	Testing Calculator	Standard Calculator
Defining Functions	Disabled	Enabled
Converting Decimal Answers to Fractions	Disabled	Enabled
Keypad	Alphabetical	QWERTY

Four-Function Calculator

There are no differences between the testing calculator and the standard Desmos calculator.

All Desmos calculators are free to use and are accessible for vision-impaired and blind students. For more information, visit www.desmos.com/accessibility.

Learn more at desmos.com/testing.

Hot Text Functionality

The NSCAS English Language Arts and Mathematics assessments have a variety of item types, including hot text items. Hot text items allow students to select text or special characters from within groups.

Students who need support with the functionality of technology-enhanced items may be assisted by adults monitoring the test sessions with technology-related questions only—not for questions related to content.

Functionality of Hot Text Items

In some cases, a hot text item may be presented as clickable text in the columns or rows of a table, as shown below. In these items, the student will be asked to select only one piece of text per row or per column. The student will not be allowed to select more than one piece of text in a row or in a column.

$948 \div 2$	Has a Remainder	Does Not Have a Remainder
$1{,}273 \div 3$	Has a Remainder	Does Not Have a Remainder
$2{,}700 \div 5$	Has a Remainder	Does Not Have a Remainder

In other cases, a hot text item may be presented as clickable text in a sentence using parentheses or at the end of a sentence after a colon. In these items, the student should select only one piece of text per set. The student cannot select more than one piece of text in a set.

The experimental probability of spinning 1 (< = >) the theoretical probability of spinning 1.

The experimental probability of spinning 2 (< = >) the theoretical probability of spinning 2.

The experimental probability of spinning 3 (< = >) the theoretical probability of spinning 3.

The experimental probability of spinning 4 (< = >) the theoretical probability of spinning 4.

A student writes the first sentence of a narrative and wants to use precise word choice. Select the word that **BEST** completes the sentence.

Excited to see her friend, Sheila (**hurried**, **strolled**, **walked**) home after school.

Practicing Hot Text Items

Students can practice responding to hot text types on the NSCAS Item Type Sampler. The Item Type Sampler is available on the Assessment Portal at https://nwea.force.com/nweaconnection/s/nebraska-practice-tests. The username and password for the online Item Type Sampler are listed below:

- Username: ne
- Password: sampler

NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Mathematics Grade 4 Reference Sheet

Shape	Area	Perimeter
Rectangle	$A = l \times w$	$P = 2l + 2w$
Square	$A = s \times s$	$P = s + s + s + s$

Key	
l = length	s = side length
w = width	

Standard Units	Metric Units
Conversions – Length	
1 foot (ft) = 12 inches (in.)	1 centimeter (cm) = 10 millimeters (mm)
1 yard (yd) = 3 feet (ft) = 36 inches (in.)	1 meter (m) = 100 centimeters (cm)
1 mile (mi) = 1,760 yards (yd) = 5,280 feet (ft)	1 meter (m) = 1,000 millimeters (mm)
	1 kilometer (km) = 1,000 meters (m)
Conversions – Volume	
1 cup = 8 fluid ounces (fl oz)	1 liter (l) = 1,000 milliliters (ml)
1 pint (pt) = 2 cups	1 liter (l) = 1,000 cubic centimeters (cu. cm)
1 quart (qt) = 2 pints (pt)	
1 gallon (gal.) = 4 quarts (qt)	
Conversions – Weight/Mass	
1 pound (lb) = 16 ounces (oz)	1 gram (g) = 1,000 milligrams (mg)
1 ton = 2,000 pounds (lb)	1 kilogram (kg) = 1,000 grams (g)

NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Mathematics Grade 5 Reference Sheet

Shape	Area	Perimeter
Rectangle	$A = l \times w$	$P = 2l + 2w$
Square	$A = s \times s$	$P = s + s + s + s$

Key	
l = length	s = side length
w = width	

Standard Units	Metric Units
Conversions – Length	
1 foot (ft) = 12 inches (in.)	1 centimeter (cm) = 10 millimeters (mm)
1 yard (yd) = 3 feet (ft) = 36 inches (in.)	1 meter (m) = 100 centimeters (cm)
1 mile (mi) = 1,760 yards (yd) = 5,280 feet (ft)	1 meter (m) = 1,000 millimeters (mm)
	1 kilometer (km) = 1,000 meters (m)
Conversions – Volume	
1 cup = 8 fluid ounces (fl oz)	1 liter (l) = 1,000 milliliters (ml)
1 pint (pt) = 2 cups	1 liter (l) = 1,000 cubic centimeters (cu. cm)
1 quart (qt) = 2 pints (pt)	
1 gallon (gal.) = 4 quarts (qt)	
Conversions – Weight/Mass	
1 pound (lb) = 16 ounces (oz)	1 gram (g) = 1,000 milligrams (mg)
1 ton = 2,000 pounds (lb)	1 kilogram (kg) = 1,000 grams (g)

NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Mathematics Grade 6 Reference Sheet

Shape	Area	Perimeter
Triangle	$A = \frac{1}{2}bh$	
Rectangle	$A = lw$	$P = 2l + 2w = 2(l + w)$
Trapezoid	$A = \frac{1}{2}h(b_1 + b_2)$	
Parallelogram	$A = bh$	
Square	$A = s \times s$	

Key	
b = base	l = length
h = height	w = width
B = area of base	s = side length
H = height of triangular prism	
s_1, s_2, s_3 are the lengths of each side of the triangular base	

3 – Dimensional Shape	Volume	Surface Area
Rectangular Prism	$V = lwh = Bh$	$SA = 2lw + 2lh + 2wh = 2B + 2lh + 2wh$
Triangular Prism		$SA = bh + (s_1 + s_2 + s_3)H = 2B + (s_1 + s_2 + s_3)H$

Standard Units	Metric Units
Conversions – Length	
1 yard (yd) = 3 feet (ft) = 36 inches (in.)	1 meter (m) = 100 centimeters (cm)
1 mile (mi) = 1,760 yards (yd) = 5,280 feet (ft)	1 meter (m) = 1,000 millimeters (mm)
	1 kilometer (km) = 1,000 meters (m)
Conversions – Volume	
1 cup = 8 fluid ounces (fl oz)	1 liter (l) = 1,000 milliliters (ml)
1 pint (pt) = 2 cups	1 liter (l) = 1,000 cubic centimeters (cu. cm)
1 quart (qt) = 2 pints (pt)	
1 gallon (gal.) = 4 quarts (qt)	
Conversions – Weight/Mass	
1 pound (lb) = 16 ounces (oz)	1 gram (g) = 1,000 milligrams (mg)
1 ton = 2,000 pounds (lb)	1 kilogram (kg) = 1,000 grams (g)

NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Mathematics Grade 7 and Grade 8 Reference Sheet

Shape	Area	Circumference
Circle	$A = \pi r^2$	$C = \pi d = 2\pi r$
Triangle	$A = \frac{1}{2}bh$	**Perimeter**
Rectangle	$A = lw$	$P = 2l + 2w = 2(l + w)$
Trapezoid	$A = \frac{1}{2}h(b_1 + b_2)$	
Parallelogram	$A = bh$	
Square	$A = s^2$	

Key	
b = base	l = length
h = height	w = width
B = area of base	s = side length
H = height of triangular prism	
s_1, s_2, s_3 are the lengths of each side of the triangular base	
d = diameter	r = radius
Use 3.14 for π.	

3 – Dimensional Shape	Volume	Surface Area
Rectangular Prism	$V = lwh = Bh$	$SA = 2lw + 2lh + 2wh = 2B + 2lb + 2wh$
Triangular Prism	$V = \frac{1}{2}lwh = Bh$	$SA = bh + (s_1 + s_2 + s_3)H = 2B + (s_1 + s_2 + s_3)H$
Cone	$V = \frac{1}{3}\pi r^2 h$	
Cylinder	$V = \pi r^2 h$	
Sphere	$V = \frac{4}{3}\pi r^3$	

Percent Change
$\%\ \text{change} = \frac{difference\ in\ amount}{original\ amount}$

Pythagorean Theorem
$c^2 = a^2 + b^2$

Standard Units	Metric Units
Conversions – Length	
1 yard (yd) = 3 feet (ft) = 36 inches (in.)	1 meter (m) = 100 centimeters (cm)
1 mile (mi) = 1,760 yards (yd) = 5,280 feet (ft)	1 meter (m) = 1,000 millimeters (mm)
	1 kilometer (km) = 1,000 meters (m)
Conversions – Volume	
1 cup = 8 fluid ounces (fl oz)	1 liter (l) = 1,000 milliliters (ml)
1 pint (pt) = 2 cups	1 liter (l) = 1,000 cubic centimeters (cu. cm)
1 quart (qt) = 2 pints (pt)	
1 gallon (gal.) = 4 quarts (qt)	
Conversions – Weight/Mass	
1 pound (lb) = 16 ounces (oz)	1 gram (g) = 1,000 milligrams (mg)
1 ton = 2,000 pounds (lb)	1 kilogram (kg) = 1,000 grams (g)

NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Hoja de Referencia de Matemáticas de 4.º Grado

Figura	Área	Perímetro
Rectángulo	$A = l \times w$	$P = 2l + 2w$
Cuadrado	$A = s \times s$	$P = s + s + s + s$

Leyenda	
l = largo	s = largo del lado
w = ancho	

Unidades Estándar	Unidades Métricas
Conversiones – Longitud	
1 pie (ft) = 12 pulgadas (in)	1 centímetro (cm) = 10 milímetros (mm)
1 yarda (yd) = 3 pies (ft) = 36 pulgadas (in)	1 metro (m) = 100 centímetros (cm)
1 milla (mi) = 1,760 yardas (yd) = 5,280 pies (ft)	1 metro (m) = 1,000 milímetros (mm)
	1 kilómetro (km) = 1,000 metros (m)
Conversiones – Volumen	
1 taza = 8 onzas líquidas (fl oz)	1 litro (l) = 1,000 mililitros (ml)
1 pinta (pt) = 2 tazas	1 litro (l) = 1,000 centímetros cúbicos (cm^3)
1 cuarto de galón (qt) = 2 pintas (pt)	
1 galón (gal) = 4 cuartos de galón (qt)	
Conversiones – Peso/Masa	
1 libra (lb) = 16 onzas (oz)	1 gramo (g) = 1,000 miligramos (mg)
1 tonelada = 2,000 libras (lb)	1 kilogramo (kg) = 1,000 gramos (g)

NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Hoja de Referencia de Matemáticas de 5.º Grado

Figura	Área	Perímetro
Rectángulo	$A = l \times w$	$P = 2l + 2w$
Cuadrado	$A = s \times s$	$P = s + s + s + s$

Leyenda	
l = largo	s = largo del lado
w = ancho	

Unidades Estándar	Unidades Métricas
Conversiones – Longitud	
1 pie (ft) = 12 pulgadas (in)	1 centímetro (cm) = 10 milímetros (mm)
1 yarda (yd) = 3 pies (ft) = 36 pulgadas (in)	1 metro (m) = 100 centímetros (cm)
1 milla (mi) = 1,760 yardas (yd) = 5,280 pies (ft)	1 metro (m) = 1,000 milímetros (mm)
	1 kilómetro (km) = 1,000 metros (m)
Conversiones – Volumen	
1 taza = 8 onzas líquidas (fl oz)	1 litro (l) = 1,000 mililitros (ml)
1 pinta (pt) = 2 tazas	1 litro (l) = 1,000 centímetros cúbicos (cm^3)
1 cuarto de galón (qt) = 2 pintas (pt)	
1 galón (gal) = 4 cuartos de galón (qt)	
Conversiones – Peso/Masa	
1 libra (lb) = 16 onzas (oz)	1 gramo (g) = 1,000 miligramos (mg)
1 tonelada = 2,000 libras (lb)	1 kilogramo (kg) = 1,000 gramos (g)

NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Hoja de Referencia de Matemáticas de 6.° Grado

Figura	Área	Perímetro
Triángulo	$A = \frac{1}{2}bh$	
Rectángulo	$A = lw$	$P = 2l + 2w = 2(l + w)$
Trapecio	$A = \frac{1}{2}h(b_1 + b_2)$	
Paralelogramo	$A = bh$	
Cuadrado	$A = s \times s$	

Leyenda	
b = base	l = largo
h = altura	w = ancho
B = área de la base	s = largo del lado
H = altura de la base triangular	
s_1, s_2, s_3 son los largos de los lados de la base triangular	

Figura Tridimensional	Volumen	Área Superficial
Prisma rectangular	$V = lwh = Bh$	$SA = 2lw + 2lh + 2wh = 2B + 2lh + 2wh$
Prisma triangular		$SA = bh + (s_1 + s_2 + s_3)H = 2B + (s_1 + s_2 + s_3)H$

Unidades Estándar	Unidades Métricas
Conversiones – Longitud	
1 yarda (yd) = 3 pies (ft) = 36 pulgadas (in)	1 metro (m) = 100 centímetros (cm)
1 milla (mi) = 1,760 yardas (yd) = 5,280 pies (ft)	1 metro (m) = 1,000 milímetros (mm)
	1 kilómetro (km) = 1,000 metros (m)
Conversiones – Volumen	
1 taza = 8 onzas líquidas (fl oz)	1 litro (l) = 1,000 mililitros (ml)
1 pinta (pt) = 2 tazas	1 litro (l) = 1,000 centímetros cúbicos (cm^3)
1 cuarto de galón (qt) = 2 pintas (pt)	
1 galón (gal) = 4 cuartos de galón (qt)	
Conversiones – Peso/Masa	
1 libra (lb) = 16 onzas (oz)	1 gramo (g) = 1,000 miligramos (mg)
1 tonelada = 2,000 libras (lb)	1 kilogramo (kg) = 1,000 gramos (g)

NSCAS NEBRASKA STUDENT-CENTERED ASSESSMENT SYSTEM

Hoja de Referencia de Matemáticas de 7.º y 8.º Grado

Figura	Área	Circunferencia
Círculo	$A = \pi r^2$	$C = \pi d = 2\pi r$
Triángulo	$A = \frac{1}{2}bh$	**Perímetro**
Rectángulo	$A = lw$	$P = 2l + 2w = 2(l + w)$
Trapecio	$A = \frac{1}{2}h(b_1 + b_2)$	
Paralelogramo	$A = bh$	
Cuadrado	$A = s^2$	

Leyenda	
b = base	l = largo
h = altura	w = ancho
B = área de la base	s = largo del lado
H = altura de la base triangular	
s_1, s_2, s_3 son los largos de los lados de la base triangular	
d = diámetro	r = radio
Usa 3.14 para π.	

Figura Tridimensional	Volumen	Área Superficial
Prisma rectangular	$V = lwh = Bh$	$SA = 2lw + 2lh + 2wh = 2B + 2lh + 2wh$
Prisma triangular	$V = \frac{1}{2}lwh = Bh$	$SA = bh + (s_1 + s_2 + s_3)H = 2B + (s_1 + s_2 + s_3)H$
Cono	$V = \frac{1}{3}\pi r^2 h$	
Cilindro	$V = \pi r^2 h$	
Esfera	$V = \frac{4}{3}\pi r^3$	

Por Ciento de Cambio
$\%\ \text{cambio} = \frac{\textit{diferencia en la cantidad}}{\textit{cantidad original}}$

Teorema de Pitágoras
$c^2 = a^2 + b^2$

Unidades Estándar	Unidades Métricas
Conversiones – Longitud	
1 yarda (yd) = 3 pies (ft) = 36 pulgadas (in)	1 metro (m) = 100 centímetros (cm)
1 milla (mi) = 1,760 yardas (yd) = 5,280 pies (ft)	1 metro (m) = 1,000 milímetros (mm)
	1 kilómetro (km) = 1,000 metros (m)
Conversiones – Volumen	
1 taza = 8 onzas líquidas (fl oz)	1 litro (l) = 1,000 mililitros (ml)
1 pinta (pt) = 2 tazas	1 litro (l) = 1,000 centímetros cúbicos (cm^3)
1 cuarto de galón (qt) = 2 pintas (pt)	
1 galón (gal) = 4 cuartos de galón (qt)	
Conversiones – Peso/Masa	
1 libra (lb) = 16 onzas (oz)	1 gramo (g) = 1,000 miligramos (mg)
1 tonelada = 2,000 libras (lb)	1 kilogramo (kg) = 1,000 gramos (g)