

## Young Scholars of Western Pennsylvania Charter School

### K Mathematics YSWPCS

- Units

Section 1

Concepts

Number and Numeration

Operations and Computation

Data and Chance

Measurement and Reference Frames

Geometry

Patterns, Functions and Algebra

OCDEL Standards

2.1.1 Count and Compare Numbers

2.1.2 Represent Numbers in Equivalent Form

2.1.3 Concepts of Numbers and Relationships

2.1.6 Concepts and Applications of Operations

2.2.1 Fluency in Basic Facts

2.2.2 Computation

2.2.4 Numerical Estimation

2.3.1 Concepts of Measurement

2.3.2 Units and Tools of Measurement

2.3.3 Calculations

2.3.4 Conversions

2.3.6 Measurement and Estimation

2.4.1 Reasoning

2.4.2 Connections

2.5.1 Problem Solving

2.5.2 Communication

2.6.1 Collection of Data

2.6.2 Organization and Display of Data

2.6.3 Numerical Summaries

2.6.5 Interpretation of Data

2.7.4 Display of Simple Spaces

2.7.5 Compare Theoretical and Experimental Probabilities

2.8.1 Algebraic Properties

2.8.2 Algebraic Manipulations

2.8.3 Patterns

2.8.4 Functions

2.8.5 Modeling

2.8.6 Interpret Results of Modeling

2.9.1 Definitions , Properties, and Relations

2.9.2 Transforming and Symmetry

2.9.3 Coordinate Geometry

2.11.1 Extreme Values

2.12.2 Rates

#### Common Core Standards

**CC.2.1.K.A.1:** Know number names and write and recite the count sequence.

**CC.2.1.K.A.2:** Apply one-to-one correspondence to count the number of objects.

**CC.2.1.K.A.3:** Apply the concept of magnitude to compare numbers and quantities.

**CC.2.1.K.B.1:** Use place value to compose and decompose numbers within 19.

**CC.2.2.K.A.1:** Extend concepts of putting together and taking apart to add and subtract within 10.

**CC.2.3.K.A.1:** Identify and describe two- and three-dimensional shapes.

**CC.2.3.K.A.2:** Analyze, compare, create, and compose two- and three-dimensional shapes.

**CC.2.4.K.A.1:** Describe and compare attributes of length, area, weight, and capacity of everyday objects.

**CC.2.4.K.A.4:** Classify objects and count the number of objects in each category.

### Vocabulary

about the same

above

below

bigger

coins

compare

count

data

graph

heads

hexagon

length

less

longer

match

more

next to

none

number

pattern

rectangle

repeat  
rhombus  
rotate  
same  
same length  
set  
shape  
shorter  
smaller  
sort  
square  
tails  
taller  
ten frame  
total  
trapezoid  
triangle  
volume  
zero

Assessment(s)

A variety of Formative and Summative Assessments will be used throughout the Unit.

Duration

16 Lessons

- Units

Section 2

Concepts

Number and Numeration

Operations and Computation

Data and Chance

Measurement and Reference Frames

Geometry

Patterns, Functions, and Algebra

OCDEL Standards

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## Vocabulary

about

above

add

all together

around  
behind  
below  
beside  
between  
circle  
coins  
corner  
curve  
digit  
dime  
down  
equal  
estimate  
flat  
inside  
join  
least  
left  
less  
line  
match  
more  
nickel  
most  
number story  
outside  
over  
pattern

penny  
rectangle  
remove  
right  
round  
same  
shape  
side  
square  
straight  
subtract  
symmetrical  
symmetry  
take away  
teen  
top  
triangle  
2-dimensional  
under  
up

Assessment(s)

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## Section 3

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### Vocabulary

1s, 10s

add

all  
approximate  
balance  
bar graph  
bigger  
certain  
chance  
column  
compare  
count back  
count on  
counting by 10s  
equal  
forward  
half  
heavier  
high  
how many  
impossible  
least  
less  
level  
lighter  
likely  
low  
match  
maybe  
measure  
might happen

more  
most  
none  
number line  
order  
pan balance  
pattern  
possible  
predict  
probably  
remove  
repeat  
row  
same  
skip counting  
smaller  
some  
subtract  
take away  
teen  
ten  
unlikely  
weight

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Section 4

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2.3.1 Concepts of Measurement

2.3.2 Units and Tools of Measurement

2.3.3 Calculations

2.3.4 Conversions

2.3.6 Measurement and Estimation

2.4.1 Reasoning

2.4.2 Connections

2.5.1 Problem Solving

2.5.2 Communication

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### Vocabulary

1s, 10s

add  
all together  
angle  
attribute  
calculator  
chance  
circle  
clear  
continue  
corner  
count back  
count on  
digits  
display  
edge  
equal  
extend  
hexagon  
higher  
join  
less  
likely  
lower  
minus  
minus sign  
more  
number line  
number sentence  
number story

parallelogram

patterns

plus

plus sign

probability

rectangle

repeat

rotate

shape

side

sorting rule

square

subtract

sum

symbol

take away

template

thick

thin

trapezoid

triangle

turn

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Section 5

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Number and Numeration

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Data and Chance

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Patterns, Functions, and Algebra

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2.2.2 Computation

2.2.4 Numerical Estimation

2.3.1 Concepts of Measurement

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2.3.6 Measurement and Estimation

2.4.1 Reasoning

2.4.2 Connections

2.5.1 Problem Solving

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2.6.3 Numerical Summaries

2.6.5 Interpretation of Data

2.7.4 Display of Simple Spaces

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2.8.5 Modeling

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### Vocabulary

12-inch rulers

add  
after  
afternoon  
all clear  
attributes  
bar graph  
before  
clear  
column  
digit  
equal  
evening  
exchange  
fewer  
first  
foot  
heel to toe  
large  
last  
left  
measure  
medium  
minus  
more  
morning  
next  
nonstandard  
number grid  
order

pattern  
plus  
right  
row  
scale  
second  
skip count  
small  
standard  
standard foot  
subtract  
take away  
tally marks  
thick  
thin  
third  
time  
total  
trade  
unit

Assessment(s)

A variety of Formative and Summative Assesments will be used throughout the Unit.

Duration

16 Lessons

- Units

Section 6

## Concepts

Number and Numeration

Operations and Computation

Data and Chance

Measurement and Reference Frames

Geometry

Patterns, Functions and Algebra

## OCDEL Standards

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#### Vocabulary

2-dimensional

3-dimensional

attributes

cent

circle

coin

comparison number story

cone

count by 2s

cube

cylinder

data

difference

dime

divide

equal

even

exchange

graph

half

halves

nickel

odd

one half

pair

part

pattern

penny

plus

rectangle

repeat

represent

seconds  
skip count  
sphere  
square  
steady pace  
survey  
symbol  
trade  
triangle  
uneven  
value  
whole  
worth

Assessment(s)

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Section 7

Concepts

Number and Numeration  
Operations and Computation  
Data and Chance  
Measurement and Reference Frames  
Geometry  
Patterns, Functions, and Algebra



## OCDEL Standards

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- 2.3.2 Units and Tools of Measurement
- 2.3.3 Calculations
- 2.3.4 Conversions
- 2.3.6 Measurement and Estimation
- 2.4.1 Reasoning
- 2.4.2 Connections
- 2.5.1 Problem Solving
- 2.5.2 Communication
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- 2.6.2 Organization and Display of Data
- 2.6.3 Numerical Summaries
- 2.6.5 Interpretation of Data
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- 2.7.5 Compare Theoretical and Experimental Probabilities
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- 2.8.4 Functions
- 2.8.5 Modeling

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### Vocabulary

2-dimensional shapes names

3-dimensional shape names

add

addition

bundle

cent

combinations

count on

difference

dime

dimension  
dollar  
equal  
equivalent names  
exchange  
larger  
largest  
minus  
name collection  
nickel  
number grid  
number sentence  
number story  
ones  
order  
pattern  
penny  
plus  
quarter  
repeat  
rule  
scroll  
smaller  
smallest  
strategy  
subtract  
subtraction  
sum  
symbol

tens  
value

Assessment(s)

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Section 8

Concepts

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Patterns, Functions, and Algebra

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2.2.2 Computation  
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2.3.1 Concepts of Measurement  
2.3.2 Units and Tools of Measurement  
2.3.3 Calculations  
2.3.4 Coverisions

## 2.3.6 Measurement and Estimation

### 2.4.1 Reasoning

### 2.4.2 Connections

### 2.5.1 Problem Solving

### 2.5.2 Communication

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### Vocabulary

add

addition sign

all clear

analog

balance

clear

compare

count on

digit

dollar

dollar sign

equal sign

equals

exchange

faster

function machine

halfway

between

hour

hour hand

hundreds

just after

just before

level  
minus  
minute  
minute hand  
missing number  
name collection  
number sentence  
number story  
o'clock  
one-dollar bill  
ones  
reverse  
rule  
slower  
subtract  
ten-dollar bill  
tens  
total  
trade  
unit  
weigh

Assessment(s)

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