HOW MUCH WATER?
Worksheet 1: Baking Pan

Name: _____

Surface Area & Volume

Sketch Pan with Metric Measurements and Units:

Sketch the bottom of the pan.

CALCULATE SURFACE AREA:

Area=length x width

AREA=_____ CM^2

CALCULATE VOLUME:

Measure 1 inch up from the bottom on your pan. Make a mark then fill with water to the one inch line.

Volume=length x width x height

VOLUME=_____ CM^3 --OR-- VOLUME=_____ ML

*Now check yourself by pouring your 1 inch of water from your pan into a beaker. How close were you!?

HOW MUCH WATER?
Worksheet 2A: Sample School

Name: _____

Surface Area & Volume

School Measurements:

65.32 meters

27.4 m



CALCULATE SURFACE AREA of ROOF:

Area=length x width

AREA=_____ M^2

CALCULATE VOLUME (that the roof would hold if rain fell 1in/hour):

Volume=length x width x height

VOLUME=_____ M^3 --OR-- VOLUME=_____ L

*CHALLENGE: Convert L to mL. _____L = ____mL

Convert L to Gallons. _____L = _____Gallons

HOW MUCH WATER?
Worksheet 2B: Sample School

Name: _____

Surface Area & Volume

School Measurements:

120.89 meters

36.53 m



CALCULATE SURFACE AREA of ROOF:

Area=length x width

AREA=_____ M^2

CALCULATE VOLUME (that the roof would hold if rain fell 1in/hour):

Volume=length x width x height

VOLUME=_____ M^3 --OR-- VOLUME=_____ L

*CHALLENGE: Convert L to mL. _____L = ____mL

Convert L to Gallons. _____L = _____Gallons

HOW MUCH WATER?
Worksheet 2C: Sample School

Name: _____

Surface Area & Volume

School Measurements:

90.56 meters

47.83 m



CALCULATE SURFACE AREA of ROOF:

Area=length x width

AREA=_____ M^2

CALCULATE VOLUME (that the roof would hold if rain fell 1in/hour):

Volume=length x width x height

VOLUME=_____ M^3 --OR-- VOLUME=_____ L

*CHALLENGE: Convert L to mL. _____L = ____mL

Convert L to Gallons. _____L = _____Gallons

HOW MUCH WATER?
Worksheet 2D: Sample School

Name: _____

Surface Area & Volume

School Measurements:

98.32 meters

26.17 m 

CALCULATE SURFACE AREA of ROOF:

Area=length x width

AREA=_____ M^2

CALCULATE VOLUME (that the roof would hold if rain fell 1in/hour):

Volume=length x width x height

VOLUME=_____ M^3 --OR-- VOLUME=_____ L

*CHALLENGE: Convert L to mL. _____L = ____mL

Convert L to Gallons. _____L = _____Gallons

HOW MUCH WATER?
Worksheet 3: YOUR School

Name: _____

Surface Area & Volume

Sketch YOUR School with Measurements:

CALCULATE SURFACE AREA of ROOF:

Area=length x width

AREA=_____ M^2

CALCULATE VOLUME (*Using the Avg Rainfall per City Handout*):

Volume=length x width x height

VOLUME=_____ M^3 --OR-- VOLUME=_____ L

*CHALLENGE: Convert L to mL. _____L = ____mL

Convert L to Gallons. _____L = _____Gallons

HOW MUCH WATER?
Worksheet 4: Rain Barrels

Name: _____

Surface Area & Volume

Record YOUR Schools Data:

AREA=_____ M^2 VOLUME=_____ M^3

Research: Using the web, search for rain barrels to use at our school. Record type, size and price.

Calculate: Once your group has chosen a type of barrel, calculate how many you would need to meet the needs you calculated for your monthly average rainfall.