Metric Mania 2019 – Student Response Sheet

School: ________________________________  V  JV1  JV2  JV3

Student Names: __________________________

For each answer, fill in the blank or circle the correct response.

Station 1
1. ________________
2. A B C D
3. ________________

Station 2
4. ________________
5. ________________
6. ________________

Station 3
7. A B C D
8. A B C D
9. A B C

Station 4
10. ________________
11. ________________
12. ________________

Station 5
13. ________________
14. ________________
15. ________________
16. A B C D
17. A B C D
18. A B C D

Station 6
19. A or B
20. A B C D
21. (2 pts) ________________
22. A B C D

Station 7
23. (3 pts) ________________

Station 8
24. ________________
25. ________________
26. ________________

Station 9
27. ________________
28. ________________
29. ________________
30. ________________

Station 10
31. ________________
32. ________________
33. ________________
34. ________________
35. ________________
36. ________________

Station 11
37. ________________
38. ________________
39. ________________
40. ________________
41. ________________
42. ________________

Station 12
43. R or S
44. R or S
45. A B C D

Station 13
46. (3 pts) __________
Station 14
47. 
48. 

Station 15
49. 
50. 
51. 

Station 16
52. 
53. 

Station 17 (2PTS EACH)
54. G H I J K L M
55. G H I J K L M
56. G H I J K L M
57. G H I J K L M
58. G H I J K L M
59. G H I J K L M
60. G H I J K L M

Station 18
61. 
62. 
63. A B C D

Station 19
64. 
65. 
66. 

Station 20
67. 
68. 
69. 

Metric Mania 2019 – Student Response Sheet

Station 1
1. ___15 OR 15 M___
2. A B C D
3. _ACCEPT 8-9 CM_

Station 2
4. _ACCEPT 0.15 – 0.19 M___
5. ACCEPT 25 – 35 MM_____
6. ___ACCEPT 10 - 15_____

Station 3
7. A B C D
8. A B C D
9. A B C

Station 4
10. _ACCEPT 60 - 70___
11. _ACCEPT 15 - 25___
12. ___2000___

Station 5
13. ___34,500___
14. ___9.854___
15. ___456,000,000___
16. A B C D
17. A B C D
18. A B C D

Station 6
19. A or B
20. A B C D
21. _ (2PTS) _65 ML (NEEDS UNIT)
22. A B C D

Station 7
23. (3 pts) _ACCEPT 74.0 – 74.8G MUST HAVE DECIMAL FOR FULL CREDIT

Station 8
24. _4 CM^2_
25. _ACCEPT 0.0036 – 0.0040 M^2_
26. ACCEPT 238,328 - 262, 144 MM^3

Station 9
27. ACCEPT SOMETHING NEAR 23°C OR CHECK TEMP
28. ___HIGHER___
29. ___100°C___
30. ___1°C _NEEDS UNIT___

Station 10
31. ___90°___
32. _ACCEPT 75° - 79°___
33. _ACCEPT 77° - 81°___
34. __ACUTE__
35. _ACUTE _
36. __RIGHT___

Station 11
37. ___2.8 KM___
38. ___317000MM___
39. ___250 CL___
40. ___>____________
41. ___>=___________
42. ___>____________

Station 12
43. R or S
44. R or S
45. A B C D

Station 13
46. (3 pts) ___40 ML___
Station 14
47. ACCEPT 0.7 – 0.9ml __
48. ACCEPT 1112 - 1429

Station 15
49. ACCEPT 5.2 – 5.4G __
50. ACCEPT 188 - 193 __
51. 4 PINS __

Station 16
52. ACCEPT 2.1 -2.4 CM __
53. ACCEPT 13 – 16 MM __

Station 17 (2PTS EACH)
54. G H I J K L M
55. G H I J K L M
56. G H I J K L M
57. G H I J K L M
58. G H I J K L M
59. G H I J K L M
60. G H I J K L M

Station 18
61. ACCEPT 110 -120 MM
62. ACCEPT 57 - 63
63. A B C D

Station 19
64. __16________
65. __JORGE_____
66. __4092M OR 4.092 KM__

Station 20
67. _ ACCEPT 150 - 200_
68. _ ACCEPT 500 – 700 ML__
69. _BEAKER___

NOTE ON STATION 17: 2 PTS EACH LINE THAT IS COMPLETELY CORRECT, 1 PT IF THERE IS 1 LETTER MISSING OR 1 EXTRA LETTER CIRCLED. ZERO POINTS IF THERE IS MORE THAN 1 ERROR IN THE LINE.
Station 1

1. Jada is making friendship bracelets. Each bracelet takes 300 cm of string. If Jada makes 5 bracelets, how many meters of string will she need?

2. Which property of the string is she measuring with a ruler?
   a. Weight
   b. Width
   c. Length
   d. Temperature

3. These 2 candles started as the same size, but I lit one of the candles for 1 hour. How many centimeters shorter is the candle I burned than the original candle?
4. Using the tools at this station, determine how long the entire candy cane is in m.

5. What is the circumference of the candy cane in mm?

6. How many canes (imagine you could straighten out the bend) would it take to go from the ceiling to the top of the door in this room?
Station 3

Pick the temperature from the list below that makes the most sense for each of these pictures.

a. -15 °C
b. 1 °C
c. 30 °C
d. 50 °C

9. Your friend invites you along for an outdoor adventure! They won’t tell you where you are going, only that the temperature will be around 305 K. Where are you most likely going?
   a. Skiing – it is cold enough for snow!
   b. Swimming – it is too hot for anything else!
   c. For an outdoor picnic – this is the perfect temperature to be outside without a jacket!
10. Estimate how many beads are equal to the perimeter of this can lid.

11. Estimate how many beads are equal to the diameter of this can lid.

12. Each bead weighs 0.25g. How many beads would it take to equal 0.5 kg?
Station 5

Convert the following measurements.

13. 345 m = __________ cm
14. 9854 g = __________ kg
15. 456 km = __________ mm

16. What unit would be best to measure how much water you drink during the day?
   a. ml
   b. mg
   c. L
   d. Kg

17. Long distance runners measure their distances in:
   a. cm
   b. km
   c. m
   d. mm

18. What is the best unit to measure the mass of this cow?
   a. g
   b. hg
   c. kg
   d. mg
19. Which of these containers has a larger volume?

20. Each line on container A is an increment of:

   a. 5 ml
   b. 10 ml
   c. 20 ml
   d. 25 ml

21. How much more measurable volume can Container B hold than Container A?

22. Container A would be good for measuring:

   a. How many pills someone has to take in a week
   b. How much salt to add to your soup recipe
   c. How much water to add to your fish tank
   d. How much bubble bath to add to the tub
23. Using the tools provided, determine the mass of the Lego pyramid to the nearest 0.1g.
24. What is the area of 1 small silver square in cm²?

25. What is the area of all the silver squares in m²?

26. What is the volume of the cube in mm³?
Carefully pick up the thermometer from the top (NOT the end with the colored liquid).

27. What is the temperature in your event room today in °C? Don’t forget the unit!

28. If you were to put the thermometer in your mouth (DO NOT DO THIS – GROSS!), would your temperature be higher or lower than the room temperature?

29. If you put the thermometer in a pot of boiling water, what would the temperature be?

30. What is each line on the thermometer worth?
Station 10

Measure the labeled angles in degrees on the flag.

31. Angle A
32. Angle B
33. Angle C

Tell whether each labeled on the flag is a Right Angle, Acute Angle, or an Obtuse Angle.

34. Angle D
35. Angle E
36. Angle F
Station 11

37. Taylor danced around a 400 m track each day for 1 week. How many km did she dance all together?

38. Selena sang while she rode her bike down a block that was 317 meters long. How many millimeters did she ride?

39. Niall poured 2.5 liters of water on his friend’s head after a concert. How many centiliters was that?

   Compare the following measurements using <, >, or =.

40. 107 cm    20 dm

41. 56 L    56000ml

42. 370 ml    3.2 dl
43. Estimate which block has the largest mass.

44. Estimate which block has the largest volume.

45. Which of the following masses is closest to the true mass of block S?

   a. 6 dg
   b. 125 g
   c. 0.05 kg
   d. 1000 mg
Station 13

Please keep all the water and pouring over the tray!

46. There are numbers on the side of the bottle – 20, 40, 60 to 140. It says that it is measuring “cc.” Use the supplies at this station to determine how many ml = 40 cc.
Sta**ton 14**

Please keep all the water and pouring over the tray!

47. Using the supplies at this station, determine the volume of this plastic bead to the nearest 0.1 ml.

48. How many beads would it take to have a volume greater than 1 L?
49. Use the scale at this station to determine the mass of this NCSO pin to the nearest hundredth of a gram.

50. If I have a pile of pins with a mass of 1 kg, how many pins are in the pile?

51. Which has a larger mass – 3 clothespins or 4 NCSO pins?
52. Use the calipers to measure the OUTSIDE diameter of this keyring to the nearest tenth of a cm.

53. Use the calipers to measure the thickness of the metal in the keyring to the nearest mm.
Match the shapes at this station with their descriptions. List all the shapes that apply to each statement. Some shapes will be used more than once, and some will not be used at all.

54. I have at least 4 vertices.

55. I have at least 2 parallel sides.

56. I am a rhombus.

57. I have at least one 90° angle.

58. All of my angles are <90°.

59. I am a rectangle.

60. I am a quadrilateral.
61. Estimate the height of the tube in mm.

62. A penny is 19mm thick. How many pennies would stack in the tube?

63. Which of these conversions shown below has an error?

   a. 0.6km = 600m
   b. 5000mg = 50g
   c. 2500 ml = 2.5 l
   d. 4 cm = 40 mm
64. I want to cut this string into 6 cm pieces. How many full-sized pieces of string can I get?

65. Jorge travels 5243 m to school. Ada travels 3.678 km. Who travels farther?

66. Distance A = 5.03 km          Distance B = 938 m.
    What is the difference between these distances in m?
67. Estimate how many beads are needed fill this bowl to the top.

68. Estimate how much water would fit in this bowl in ml.

69. What is this piece of equipment called?