**Ms. Bravo is in a breakout room with three students to do an activity choice board.**

***Ms. Bravo***: Hello! How is everyone doing?

**Anjel to Everyone**: Hi

***Kimberly to Everyone***: Hello and good

***Khedinh to Everyone****:* good

***Ms. Bravo***: We are just going to be working on the activity choice board today. Khedinh, I will add you in the shared document as well. Okay, I will put the link in the chat [ link to shared document].

***Khedinh to Everyone***: Thank you

***Ms. Bravo***: I am going to share my screen to make sure everyone has access to the recording document. All right I see everyone. Okay, I will now go to the activity choice board. Is there a specific activity you all want to do? There is volume of cylinders and cone, lateral area and surface area of cylinders, and lateral area and surface area of prisms. I will number the activities from 1 through 9.

***Anjel to Everyone***: 2

***Kimberly to Everyone***: 2

***Khendinh to Everyone***: 2

***Ms. Bravo***: Okay, 2 it is. I will make a copy of the document and share it with everyone. [Shared document for activity number 2 volume of cone practice]. Okay, is the link working?

***Kimberly to Everyone***: It works

***Anjel to Everyone***: Yes

***Ms. Bravo***: Awesome! Okay, so this activity is volume of cones. The directions are you and your teammates will solve for the B, base area and V, volume for each cone. Drag and drop the cards to the correct spot. Alright, so we need to remember what the formula for the volume of a cone is. Let us say we cannot remember and need a refresher; we can hit the STAAR chart link [opens link]. If we go down the volume section and look for volume of a cone, we can that it is $V=\frac{1}{3}B\*h$. I am going to go back to our slides and write $V=\frac{1}{3}B\*h$. Alright, now we know B is base area. What shape is the bottom of a cone?

***Kimberly to Ms. Bravo (privately)****:* circle

***Anjel to Everyone*:** circle

***Khendinh to Everyone***: circle

***Ms. Bravo***: Yes, so I need the formula for the area of a circle. Let us say that I do not know the formula. I can go back to my STAAR chart and go down to the area section and see that the formula is $A=π\*r^{2}$. I will go back to our slides and write $B=π\*r^{2}$. Now, what is 6? Is it the radius or diameter?

***Kimberly to Ms. Bravo (privately)***: diameter

***Anjel to Everyone***: diameter

***Ms. Bravo***: Yes! Now, how do I find the radius from the diameter?

***Kimberly to Ms. Bravo (privately):*** divide by 2.

***Anjel to Everyone*:** /2 and it is 3.

***Ms. Bravo***: Yes, you divide the diameter by 2 to find the radius. I see you already have given me the answer. Yes, the radius is 3. Now, I will use the formula for the area of a circle. We said the radius is 3, so I will write $π\*3^{2}$. I will open the Desmos link and type exactly what we wrote. I will plug in $π\*3^{2} $and the answer is 28.27. Alright, do we have anything that matches that? Oh yay, Khedinh! Yes, please move that to the correct place.

***Kimberly to Everyone***: Why is it 28.26?

***Ms. Bravo***: It is probably because they multiple by 3.14 instead of pi. Here I will show you on the calculator.

***Kimberly to Everyone***: oh okay.

***Ms. Bravo****:* Alright, now for the volume. We have the formula $V=\frac{1}{3}B\*h$. So, we know the B is 28.26, now what is the height of the cone?

***Anjel to Everyone***: 4.5

***Ms. Bravo***: Yes. So, I will plug the height into the formula. I will go to Desmos and plug it into the calculator.

***Khendinh to Everyone***: 42.39

***Ms. Bravo***: I see that you have beaten me to it \*chuckle\*. Yes, we get 42.39. Yes, Anjel move the card. Alright, do you want to try doing the last two by yourselves?

***Kimberly to Everyone***: okay

***Anjel to Everyone***: yes

***Khendinh to Everyone***: sure

**[3 minutes later]**

***Ms. Bravo***: Okay, I see a lot of private messages from you all giving me the answers. Alright, so for the second one what is the radius?

***Anjel to Everyone***: 4.5

***Kimberly to Everyone***: 4.5

***Khendinh to Everyone***: 4.5

***Ms. Bravo***: Awesome, what is the height?

***Kimberly to Everyone***: 6

***Anjel to Everyone***: 6

***Ms. Bravo***: Alright, so we plug it into [Desmos] and we get the base area as 63.59. Now, for the volume we get 127.2. Let us go onto the last problem, what is the radius?

***Anjel to Everyone***: 2.25

***Ms. Bravo***: Yes, I am glad that you recognized that was the diameter and not the radius. What is the height?

***Anjel to Everyone***: 6

***Kimberly to Everyone***: 6

***Ms. Bravo***: Awesome! Okay, I am going to go Desmos and type into the calculator. Yes, the base area is 15. 90. Now, we said the height was 6, multiply everything together and we get 31.8.

Awesome job everyone! We still have time to do another activity. So, let us go back to the choice board. I will number them again. What is the next activity you all would like to do?

***Anjel to Everyone***: 3

***Ms. Bravo***: I see Anjel wants a challenge.

***Kimberly to Everyone***: 3

***Khendinh to Everyone****:* 3

***Anjel to Everyone***: Yes!

***Ms. Bravo***: Alright, I will share the document with everyone and share the link in the chat. [shares link]

***Anjel to Everyone***: This looks hard.

***Ms. Bravo***: Yes, but I am here, and we have each other to work together on this.

 The directions are you and your teammates will work together to solve this real-world problem. The problem is an insulated water bottle has a diameter of 5.5 inches and a height of 8.5 inches. The insulated ring is filled with coolant. The interior of the bottle has a diameter of 4 inches, as modeled in the diagram shown. What amount of coolant can the insulated ring hold?

Okay so what are we solving for?

***Kimberly to Everyone***: The amount

***Ms. Bravo***: Yes, we are solving to find the amount of coolant in the insulated ring hold. Now we have the outside of the cylinder and the inside of the cylinder information. I want to find the shaded region. How would I find the shaded region?

Oh, we are leaving the breakout room soon. We will continue to work on the choice board next week as well.

**[Leaving breakout rooms, back in the main session]**

***Ms. Bravo to Anjel (privately):*** Hey we will work on the choice board next week as well so do not worry too much about it.

***Ms. Bravo to Kimberly (privately*):** Hey we will work on the choice board next week as well so do not worry too much about it.

***Kimberly to Ms. Bravo (privately*):** okay

***Ms. Bravo to Khedinh* (*privately)*:** Hey we will work on the choice board next week as well so do not worry too much about it.

**[Everyone is leaving]**

***Kimberly to Everyone***: bye

***Khendinh to Everyone*:** bye

***Anjel to Ms. Bravo (privately)*:** bye.