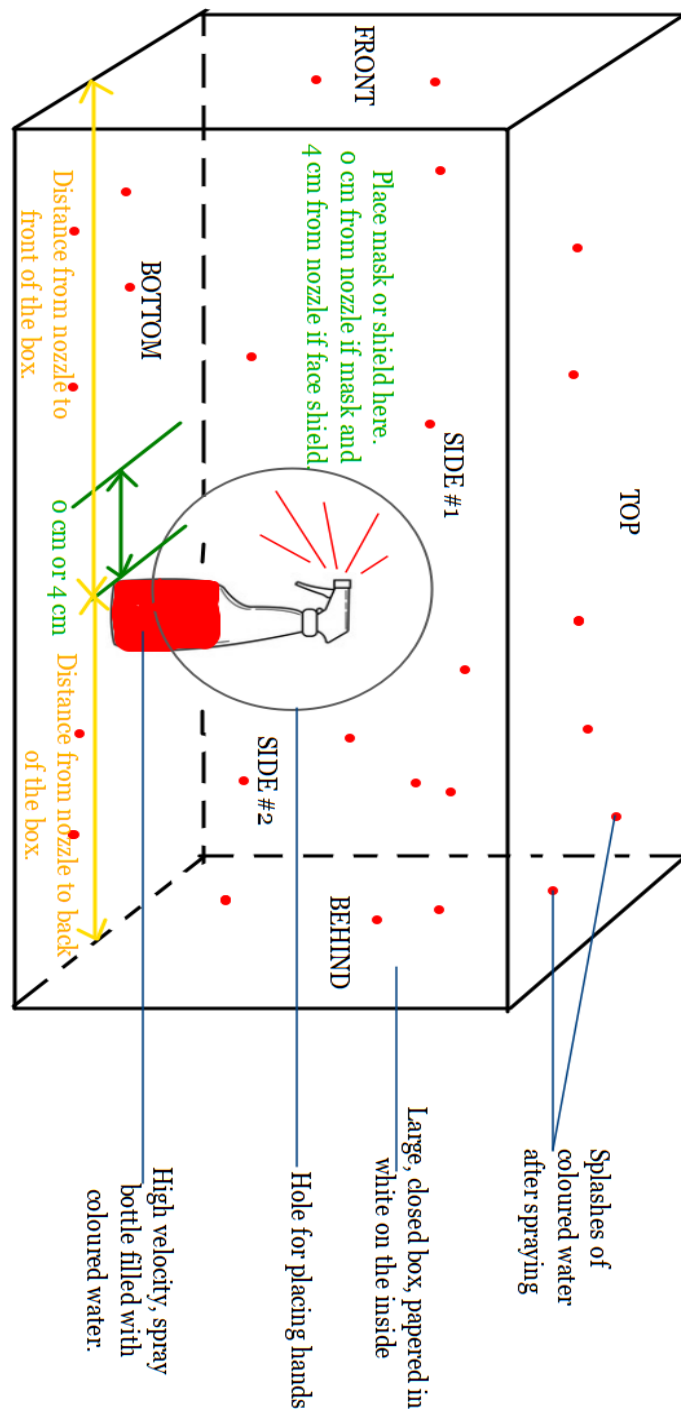


SET UP OF TESTING STATIONS AND PROCEDURE FOR FACE MASKS AND SHIELDS.

TEST 1: Protecting others.



PROCEDURE:

Author: Allana Harrylagan

Spray bottle image used: <http://clipart-library.com/spray-bottle-cliparts.html>

1. Set up the testing station as shown on page 1. Your teacher may have already done this. The distances from the nozzle to the front of the box and from the nozzle to the back of the box will depend on your size of box chosen and must be the same for both boxes.
2. For Face Masks: Hold the face mask 0 cm away from the nozzle (directly on the nozzle). For Face Shields: Hold the face mask 4 cm away from the nozzle. The nozzle should be facing the inside of the mask where the nose and mouth would be.
3. Spray four full pumps of coloured liquid from the bottle into the mask or shield. This will simulate the emission of droplets from a sneeze or cough. Wait at least 5 seconds between pumps.
4. Count the number of coloured splashes or droplets on the walls of the box and record it in the table below.
5. Replace the soiled paper with new paper.
6. Repeat Steps 1 – 5 for other types of face masks.
7. Calculate the average amount of splashes on each side of the wall.

Title: This table shows the frequency of the colour splashes on the walls of the testing station for protecting others.

	NUMBER OF COLOURED SPLASHES					
Mask Number or Name	TOP	BOTTOM	SIDE #1	SIDE #2	FRONT	BACK
1						
2						
AVERAGE:						

THINK TIME:

Author: Allana Harrylagan

Spray bottle image used: <http://clipart-library.com/spray-bottle-cliparts.html>

1. What do these numbers show?

2. What can you conclude about masks in terms of safety?

3. How can this data help you improve on existing designs?

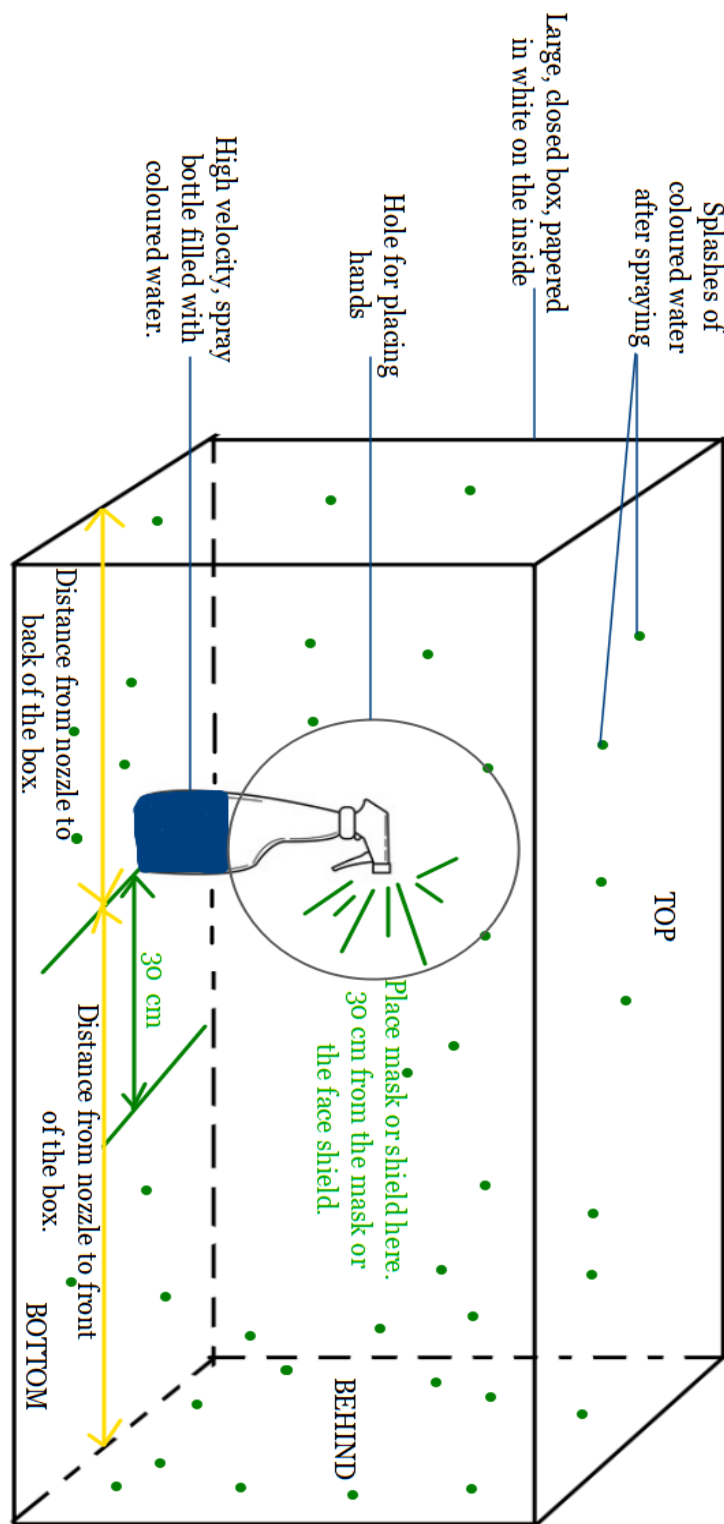
SET UP OF TESTING STATIONS AND PROCEDURE FOR FACE MASKS.

Author: Allana Harrylagan

Spray bottle image used: <http://clipart-library.com/spray-bottle-cliparts.html>

Page 3 of 6

TEST 2: Protecting yourself



PROCEDURE:

Author: Allana Harrylagan

Spray bottle image used: <http://clipart-library.com/spray-bottle-cliparts.html>

1. Set up the testing station as shown on page 4. Your teacher may have already done this. The distances from the nozzle to the front of the box and from the nozzle to the back of the box will depend on your size of box chosen and must be the same for both boxes.
2. Hold the face mask or shield 30 cm away from the nozzle. The nozzle should be facing the outside of the mask or shield.
3. Spray four full pumps of coloured liquid from the bottle into the mask or shield. This will simulate the emission of droplets from a sneeze or cough. Wait at least 5 seconds between pumps.
4. Count the number of coloured splashes or droplets on the walls of the box and record it in the table below.
5. Replace the soiled paper with new paper.
6. Repeat Steps 1 – 5 for other types of face masks or shield.
7. Calculate the average amount of splashes on each side of the wall.

Title: This table shows the frequency of the colour splashes on the walls of the testing station for protecting yourself.

Mask/shield Number or Name	NUMBER OF COLOURED SPLASHES				
	TOP	BOTTOM	BEHIND	SIDE #1	SIDE #2
1					
2					
AVERAGE:					

THINK TIME:

Author: Allana Harrylagan

Spray bottle image used: <http://clipart-library.com/spray-bottle-cliparts.html>

1. What do these numbers show?

2. What can you conclude about masks in terms of safety?

3. How can this data help you improve on existing designs?

Team members: _____

ARE YOU TEAM: ☐ FACE MASK ☐ FACE SHIELD?

Author: Allana Harrylagan

Spray bottle image used: <http://clipart-library.com/spray-bottle-cliparts.html>

Page 6 of 6