

Project 1: Blood Model in a Bottle + Stress Monster

Group lesson: 10 children

Age Group: K-8th grade

Volunteers: 2-3

****MESSY PROJECT****



Project Explanation:

The first activity, creating a Stress Monster, is an **emotion-based activity** that will let children express their negative emotions and demonstrate to them that they don't have to let their negative emotions make them into monsters! As part of this activity will be to create a stress monster, help children identify their "stressful" emotions and help identify things the kids can do to help destress.

The children will then learn about the heart and cardiovascular system as well as the immune system. They will be introduced to these topics by two educational videos on Youtube (links included below). As you watch the videos, be sure to emphasize the lessons learned in the videos and be ready to answer questions!

You will then distribute the materials for the **Blood Model in a Bottle** project and describe each component of blood as you create the model. Make sure to emphasize that the plasma (the soap) helps bring nutrients and proteins to parts of the body, and how red blood cells (red skittles) carry oxygen to all parts of the body. Be sure to include that the white blood cells (white chocolate chips) are there to help attack the bacteria, viruses and germs that try to get us sick. Lastly, be sure to go over how platelets (rice) helps us to stop bleeding when we get a cut. Tie the lesson together and conclude on



how good hygiene can ward off illnesses and prevent our white blood cells from working overtime!

Project Objectives:

- Express and share negative feelings of the week by creating the stress monster
- Learn about the importance of the cardiovascular system and its implications within our immune system and overall health
- Learn about the various components of our blood and their function; red blood cells, white blood cells, platelets, plasma
- Learn about good hygiene and how it can positively impact our health

Project Goals:

- Create a safe, fun and collaborative environment
- Emphasize sharing and communication
- Identify strengths, encourage and praise!
- Remember to be non-judgemental and support through a trauma-informed and inclusive approach!
- HAVE FUN!

Materials Needed:

- Stress Monster: white and color paper, glue, tape, coloring utensils, scissors, magazine cut outs, feathers, googly eyes, glitter!
- Coloring pencils, markers or crayons and cleaning supplies
- 10 empty mini plastic water bottles
- 1 L of clear soap → model for plasma
- 1 Bag of red skittles → model for red blood cells
- 1 Bag of white rice → model for platelets
- 1 Bag of white chocolate chips → model for white blood cells

Set up:

1. ****MESSY PROJECT****: Please lay down the plastic floor matt under the table and the plastic tablecloth on the table
2. Bring coloring materials to project station: crayons, markers and coloring pencils
3. Bring cleaning supplies to project station: paper towels, clorox wipes



Instructions:

1. Emotion-based project: hand out materials to children, instruct them to identify emotions that become their “stress monster”, then tell them to craft that stress monster.

a. Please say out loud that the program participants and volunteers are a part of a **circle of trust!** Remember to enforce that there are no judgements, and that emotions can be trusted in this group.

- Go around the table and share 3 emotions that helped create their stress monster
- Go around the table and identify 1 destressing activity! (ex./ spending time with Friends or reading a book!)

2. **Health-based project:** hand out a mini empty plastic water bottle + place “blood components” on table; please wait until after videos to distribute.

- First watch these two youtube videos: (links included on shared google sheets for volunteers)
- **How the Heart Works:**
https://www.youtube.com/watch?v=_eVG45_iF9U&frags=pl%2Cwn
- **How your Immune System works:**
<https://www.youtube.com/watch?v=24IYt5Z3eC4&t=294s&frags=pl%2Cwn>

3. First distribute soap to all the kids and fill their water bottles with soap

- Explain how the soap will be our model for plasma; they both have similar viscosity and coloring

4. Hand out the red skittles, make sure they eat extras only after completing the project!

- Explain how the red skittles serve as our red blood cell model; explain red blood cell function

5. Hand out the white chocolate chips, make sure they eat extras only after completing the project!

- Explain how the white chocolate chips serve as our white blood cells; explain their function

6. Hand out the rice, make sure they **don't eat the uncooked rice!**

- Explain how the rice serves as our platelets; explain their function

7. Final product!! You have finished the blood model in a bottle!

- Final explanation of how all these components put together is our blood, and how important it is to have good hygiene to protect ourselves from getting sick.
- Good hygiene: washing hands, not sharing eating utensils, taking showers, sneezing into our elbows and brushing our teeth!



8. **Sing** the clean up song and get everything cleaned up!!
 - Please wipe down any surfaces and make sure the mat is cleaned and rolled up and put in its usual place after the project is completed.

Project Takeaways:

1. Learn and create interest in the human body systems and health
2. Share emotions, identify stressors of the week and help create distress techniques