

Recycled Jug Lungs



Purpose:

The purpose of this craft is to develop a deeper understanding of the structure of human lungs while recycling materials from the home that could cause waste pollution and turning it into something beautiful. In addition, when completed, the activity allows students to comprehend just how unique each species organ systems are by providing a visual comparison.

Materials:

- 4L recycled milk jug
- Straws
- Bottle caps
- Glue
- Scissors
- Felts
- Other recyclable materials

Procedure:

1. Using scissors or a box cutter, carefully cut a 4L milk jug in half from the opening at the top to the base. Completely separate the two halves and set them side by side as mirror images of each other.
2. Glue the sides of the milk jug halves together with hot glue. *(At this stage, if you have some recycled tubular materials such as a hose or large cord you can create bronchial tubes and the trachea coming from the top of the milk jugs)*
3. Using straws and bottle caps, create textured channels along the inside of the “lungs”. The bottle caps can act as the alveoli sacs and straws, the bronchioles.
4. Once the structure itself has been developed, the lungs can be colored or painted to the individual student's preference. The lungs can act as a symbolization of how waste and pollution can influence our internal organ systems, the beauty in recycling or any other meaning they hope to portray with their artwork.

Comparison Activity:

All mammals will have lungs to obtain oxygen from the air. The shape and size of these lung however, may differ between species. For example, a giraffe's lungs will hold 12 gallons of air, 8x the capacity of human lungs. To have a better idea of what this may look like, have the students place their recycled lung art pieces side by side.

To create an approximate example of the capacity of the giraffe lungs, in comparison to the human lungs, 8 of the students' projects would be placed together. Having this visual, you can have a class discussion as to why the lungs may be so different, what might be advantages with each size to each corresponding organism, what other animal lungs may look like or even how different forms of everyday pollution affect the lungs of any mammal.