



GENES IN A BOTTLE ACTIVITY

Checklist

To help get you started and run a successful activity in your classroom, the following checklist will guide you through each step of the process. The kit will allow for 36 students to participate in the activity.

- **Familiarize yourself with all components in the Science Ambassador kit**
 - Tote bag
 - Genes in a Bottle DNA Extraction Kit
 - Necklace modules
 - Thumb drive
 - “I Love Your DNA” tattoos (40)
 - Science Ambassador T-shirt
- **Familiarize yourself with all documents that are found on the thumb drive**
 - Checklist
 - Activity instructions
 - How To video
 - Science PowerPoint presentations
 - Video montage
- **Open the Genes in a Bottle DNA Extraction Kit and Necklace Module Kit**
 - Familiarize yourself with the components in each kit
 - Read the instruction manual for each of the kits (please note that these are detailed instruction manuals that are typically used by teachers using a more complicated protocol. You may find the background material presented in each manual to be useful)
- **Print the activity instructions**
 - These instructions will guide the students through each step of the activity
- **Gather additional supplies not provided in the kit**
 - Small paper cups (36)
 - Alcohol (91% isopropanol or 95% ethanol) (360 ml)
 - Permanent marking pens (9)
 - Plastic zip-top bags (36)
 - Paper towels (for any spills)
 - Regular paper cups to hold supplies on desk (36)

1 Day Prior to Classroom Visit
- **Prepare reagents**
 - Add one package of powdered protease + salt powder to the bottle of lysis buffer. Swirl to dissolve. This is the protease/salt/lysis buffer used in step 2
 - Aliquot 2 ml of the protease/salt/lysis buffer into colored micro test tubes (36 tubes)
 - Chill alcohol by placing in freezer overnight
- **Prepare zip-top bags of reagents. To each bag add:**
 - One 15 ml conical tube
 - One colored micro test tube with protease/salt/lysis buffer
 - One disposable transfer pipet
 - Necklace components (vial, cord, and cap)
 - One “I Love Your DNA” tattoo
- **Use the tote bag to carry all of your materials to the classroom the next day!**

1-2 Hours Before Activity



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Checklist

Continued

- Set up classroom for activity**
 - Distribute copies of the activity instructions
 - Place the alcohol in a styrofoam container with ice
 - Set out the paper towels
 - Put a zip-top bag and paper cups on each desk for the students to use
- 5 Minutes Prior to the Start of the Class**
- Put on your T-shirt, put on a smile, and get ready to start!**

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