FLINN SCIENTIFIC

# BIOLOGY LAB CLEAN-UP

## What you need to know.


2021

# What did I forget to do in the prep area when my school was closed?

There are many teachers and science supervisors asking about prep room safety strategies while their schools are closed for months longer than the traditional summer vacation.

FLINN understands the situation that you are in currently and we have compiled a listing of common concerns and remedies for them which you can use.

During this challenging time we know that you are doing your best to provide remote learning and may not be thinking about the science department in the school, but there are some things to be mindful of back in your prep area and lab.

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# Proper Cleaning & Storage: Dissection Materials & Tools

## Under the right conditions, many dissection specimens can be stored for years.

### Here's what you need to know:

Specimens should be kept in their original packaging, at room temperature and out of direct light. Do not refrigerate dissection specimens, even when storing long-term—this will damage them.

Remove and discard blades from scalpels and wait to put on new blades. Wash all dissection tools and pans throughly with a good quality laboratory detergent. Dry them with paper towels and place in front of a fan or in direct sunlight until completely dry. Store items in a tub with desiccant.

**Watch our Biology Minute Video** for a quick guide to cleaning dissection tools.

# Biological Jar Specimens

## Here's what you need to know:

Fetal pigs, rats, frogs, fish, grasshoppers and other common specimens need to be stored properly. Tight lids, unopened sealed vac-pacs, ideally in a climate-controlled space to minimize odors.

There should not be any homemade specimens in the prep area or science labs as these are unsafe and not recommended or approved. Only use commercially manufactured museum mounted specimens.

# Proper Cleaning & Storage: Models

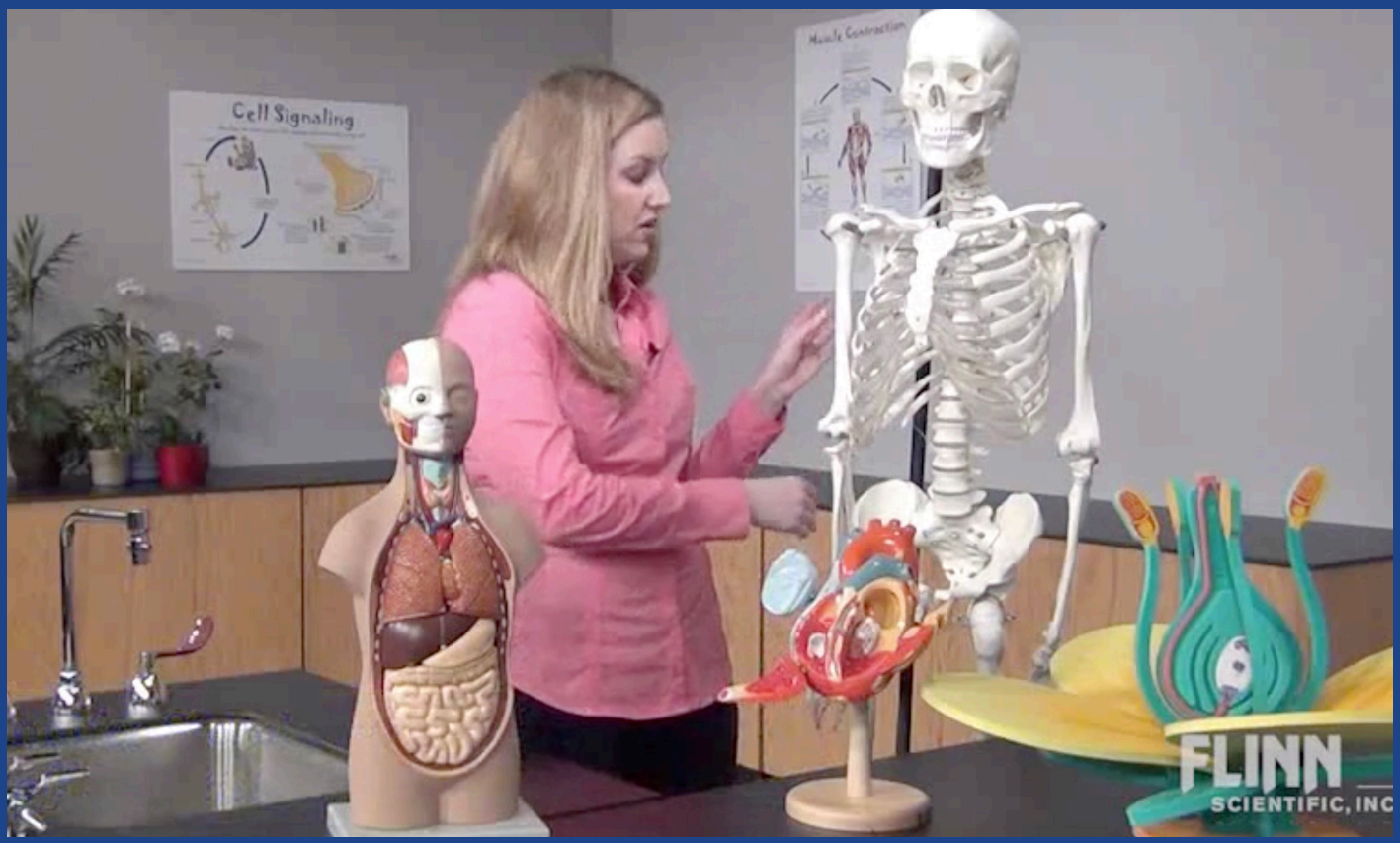
Proper care and cleaning of anatomical models and skeletons will allow them to serve as valuable teaching tools for years.

## Here's what you need to know:

To clean classroom models, use a mild soap, damp cloth or soft toothbrush to gently remove dust and debris.

Keep models covered when not in use, either using the product box or by wrapping in cloth. Models should not be stores upright; lay models flat in their box or covered on a flat surface to preserve them.

**Watch our Biology Minute Video** for a quick guide to long-term model storage.



# Proper Cleaning & Storage: Slides

## Light, temperature, and gravity can damage prepared slides.

### Here's what you need to know:

Slides can represent a large investment for a school, and with proper care can be used for a long time. Light will cause the natural pigments in slides to fade—store slides in a closed cabinet or slide box.

Gravity can cause the specimen or glass cover slip to slide. If you store in a slide box, the slide box should be on its side, like a book, for proper long term storage.  Do not to stack slides on top of one another or apply pressure to the cover glass.

Cover slips can pop off and leave specimens unprotected in the heat. Find a cool, dark and dry area to store slide boxes.

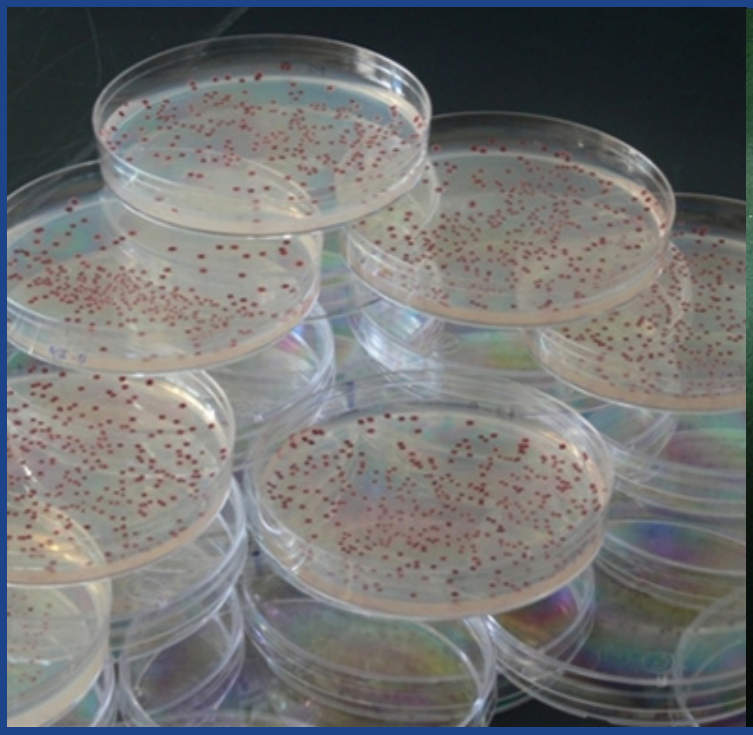
**Watch our Biology Minute Video** for a quick guide to slide storage.

# Live Plants, Animals & Cultures at School

## Here's what you need to know:

Live plants and animals will need to be removed from school during the extended school closings and properly cared for if possible. Animals that are not native to your area or animals that have been purchased (even if they are thought to be native to your area) should not be released into the wild. They may suffer and die or they may become established and cause ecological damage

Are there any petri dish cultures at school?  Were these dealt with prior to school closing or are these growing wildly on the lab bench / incubator oven in the prep area?  Before disposing of dishes in the trash or cleaning for future use, the bacteria should be destroyed. Pour a small amount of household bleach over the colonies while holding dish over sink. Caution - do not allow bleach to touch your skin, eyes or clothes. Wash all petri dishes with quality lab detergent and dry thoroughly before storage.



# Plumbing Issues When Schools are Closed

## Here's what you need to know:

The drains–if there are any present–in the floor may be dry inside the 'P' trap, which will allow for some sewer gases to find their way into the school science departments.

Usually over the summer, or on a set schedule the maintenance/janitorial staff add some water into these drains to freshen them up, and some add a few drops of vegetable oil to slow down the evaporation of the water and to keep the traps working as they should.

The drains in the lab benches and perimeter stations will also need to be topped up with the same liquid and maybe some oil drops seeing that the schools are going to be closed for months.  This will prevent odors. If you have a  dishwasher for glassware in the prep area, it will need to be run through a cycle to clean itself and remove odors.

# Storage and Prep Room Organizations

## Keeping prep and storage rooms clean and organized is a never-ending task. Flinn has many helpful resources for you.

### Here's what you need to know:

We recognize that in the unexpected school closures there are likely some levels of 'messiness' in the prep area as a result of not planning to be away for an extended period of time.

It can be overwhelming to address organizing your prep room when a school closes abruptly, or if you only have limited time in your school. First, make sure all safety equipment is easily accessible including: Fire extinguisher; fire blanket; spill kit; PPE; UV goggle sterilizer; drench shower; eye wash station; first aid kit; master shut-off switches; smoke detectors. There needs to be clear access to these items.

Many school science departments keep certain lab reagents and consumer commodities in there ( including eggs used for lab activities which will expire and smell really bad... ) or milk products used for dairy labs etc. These will need to be purged ASAP to minimize potential odors & bacterial growth. If you cannot get into the school, you should alert your principal and the janitor/maintenance people to remove any products/items from the fridge when they can.

Make it a priority to organize the prep area once you are back in the building and that may require the removal of clutter. Student projects, textbooks, lab activities, glassware, boxes, random science items and bottles of chemicals are the usual contributors to the disorganization

# Did you know?

*Flinn has many free resources that set to keep your labs and prep areas safe and organized. Search under the resources tab next to the search field at* www.flinnsci.com *to search our archives.*

**Watch our End of the Year Safety and Clean Up Tips video.**

# Flinn **End-of-School Year** Science Department **Checklist**

- [ ] 1. Do a chemical inventory. All chemicals including stock solutions and even dropper bottles should be correctly labeled. Evaluate the chemicals in your prep room and make sure chemicals are properly stored according to the Flinn suggested organizational method. Ideally these should be kept in a climate conditioned room.
- [ ] 2. Identify chemicals and accumulated chemical wastes for hazardous waste removal over the summer. You should contact the school district and alert your administrator about chemicals and chemical wastes that need to be removed.
- [ ] 3. Dissection specimens need to be stored so they do not get too warm. Ideally these should be kept in a climate conditioned room.
- [ ] 4. Cover your microscopes with dust covers or shopping bags to prevent dust accumulation over the summer. This is a very simple and effective way to protect your investment in this equipment.
- [ ] 5. Top off buffer solution on pH probes if needed so that they stay hydrated over the summer. These tend to evaporate or leak over time if the caps are not secured properly.
- [ ] 6. Unplug all electrical devices (microscopes, hot plates, balances, etc.). This will save on energy consumption and provide a longer life for your equipment. Identify any issues with the power cords or outlets. (A circuit tester such as SE9095 is a handy device for checking electrical outlets.)
- [ ] 7. Inspect your scientific equipment and apparatus for any issues, including routine parts replacement. For example: check the Van de Graff generator belts, the UV lamp in goggle sanitizers and the cartridge in a water demineralizer.
- [ ] 8. Do a walk-through of each lab in the science department to check and identify safety equipment with proper signage. For example: eye wash stations, drench showers, fire extinguishers, first aid kits, broken glass boxes, fume hoods, master shut off switches, and chemical spill kits.
- [ ] 9. Identify any urgently needed back-to-school supplies required early in the next school year. Order them to arrive when you return to school to ensure a strong start to your science program without any delays due to not having the right products on hand.
- [ ] 10. Document your end-of-the-year science department needs in a prioritized list and provide this information to your administrator prior to departing for the summer. Keep a copy for your records. End-of-School Year

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Your Safer Source for Science.

Learn more about Lab Safety at www.flinnsci.com