

# science take-out®

...just add students™

## Hands-on science *made simple*

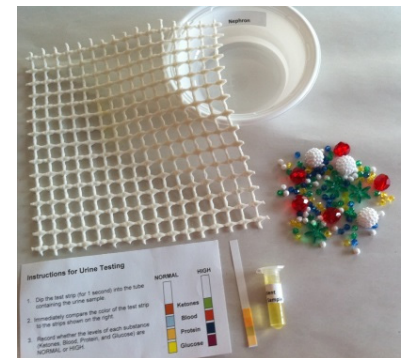
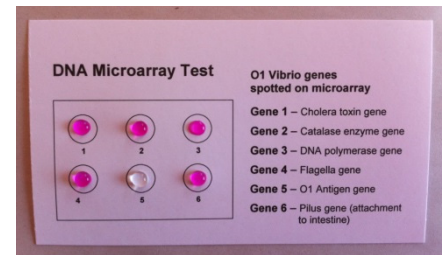
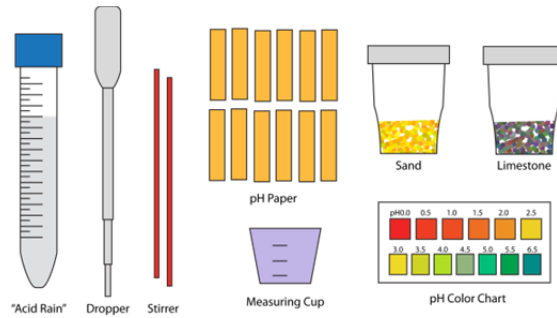


Uniquely suited for diverse learning environments.

Science Take-Out kits are ready-to-go. No prep and no lab equipment required. Convenient and cost-effective for use in any educational setting!

### Developed by experienced educators.

Science Take-Out kits are designed by experienced science educators who understand the diverse needs of teachers and their students. All Science Take-Out kits are thoroughly field tested to ensure that they are student friendly, teacher friendly, and meet significant learning objectives.



### ◆ Ready-to-Go ◆

Each Science Take-Out kit contains all the materials and instructions needed to complete the lab activity. No prep and no lab equipment required.

### ◆ Versatile ◆

Science Take-Out kits are ideal for situations where access to lab facilities or equipment is limited. They can be used in classrooms or non-school settings such as homes, tutoring centers or enrichment programs.

### ◆ Active Inquiry ◆

Science Take-Out activities involve students in active, hands-on and minds-on inquiry learning. Students develop inquiry process skills such as developing hypotheses, collecting data, graphing, analyzing data, and drawing conclusions.

### Know before you buy!

You can download a detailed teacher guide for each kit, including background information, kit contents, and student instructions. This will allow you to be certain that the kit is appropriate for your curriculum and your students.



Time of Blood Collection Minutes after drinking the glucose solution	Column 1 Drop of Blood Plasma for Glucose Test	Column 2 Drop of Blood Plasma for Insulin Test
0 (fasting)		
30		
60		
90		
120		

### ◆ Student Friendly ◆

Easy-to-follow instructions use engaging illustrations, manipulative models, and safe simulations of authentic laboratory methods.

### ◆ Teacher Friendly ◆

Teacher guides contain answer keys, descriptions of core concepts, and suggestions for extension activities. Kits may be used by educators with minimal science background or teaching experience.

### ◆ Cost Effective ◆

Science Take-Out kits are sold individually, so you can buy just what you need. You can purchase a single kit or mix and match any combination of our kits. Economical unassembled packs and refills are available.

[www.sciencetakeout.com](http://www.sciencetakeout.com)

**Science Take-Out kits are available as:**

- **Individual Assembled Kits** Fully assembled kits for students working individually or in small groups
- **Unassembled Packs** All supplies needed to make 10 kits
- **Refill Packs** All supplies needed to refill the consumables for 10 kits

## Science Take-Out Kit List

<b>STO-101</b>	<b>Kidney Dialysis</b>	Create a mini-model of a kidney dialysis machine and learn how dialysis removes wastes from blood.	Assembled kits: \$12.00/each	Unassembled Packs: \$98.00/pack	Refill Packs: \$31.00/pack
<b>STO-102</b>	<b>Kidney Donor</b>	Which family member can safely donate a kidney to a patient who needs a kidney transplant?	Assembled kits: \$15.00/each	Unassembled Packs: \$115.00/pack	Refill Packs: \$50.00/pack
<b>STO-103</b>	<b>Yeast Respiration</b>	How does temperature and food types affect yeast reproduction? Design your own experiment.	Assembled kits: \$9.00/each	Unassembled Packs: \$60.00/pack	Refill Packs: \$18.00/pack
<b>STO-105</b>	<b>Beebops Genetics and Evolution</b>	Create a baby <i>Beebop</i> to learn about genetic variation and natural selection.	Assembled kits: \$11.00/each	Unassembled Packs: \$76.00/pack	Refill Packs: \$48.00/pack
<b>STO-106</b>	<b>From DNA to Protein Structure and Function</b>	What do genes do? How does a protein's structure affect its function?	Assembled kits: \$8.00/each	Unassembled Packs: \$38.00/pack	Refill Packs: \$18.00/pack
<b>STO-107</b>	<b>Acid Rain and Buffers</b>	Learn how certain types of lake bottoms can act as buffers against acid rain.	Assembled kits: \$9.00/each	Unassembled Packs: \$70.00/pack	Refill Packs: \$25.00/pack
<b>STO-110</b>	<b>What is it? Dichotomous keys</b>	Learn to use and create dichotomous keys to identify organisms.	Assembled kits: \$12.00/each	Unassembled Packs: \$90.00/pack	Refill Packs: <i>not available</i>
<b>STO-111</b>	<b>Mark-Recapture Population Sampling</b>	Use population sampling to estimate the number of organisms in a population.	Assembled kits: \$9.00/each	Unassembled Packs: \$60.00/pack	Refill Packs: <i>not available</i>
<b>STO-112</b>	<b>Cell Membranes: Diffusion and Osmosis</b>	Create a model cell to observe diffusion through a membrane.	Assembled kits: \$12.00/each	Unassembled Packs: \$80.00/pack	Refill Packs: \$24.00/pack
<b>STO-113</b>	<b>Flower Forensics</b>	Has a rare, black orchid been illegally cloned? Perform simulations of chromatography of plant pigments, enzyme assays, restriction enzyme digestion and gel electrophoresis.	Assembled kits: \$14.00/each	Unassembled Packs: \$98.00/pack	Refill Packs: \$42.00/pack
<b>STO-115</b>	<b>Pollution Investigation</b>	Conduct simulated water tests to determine what is causing the pollution in Big Lake.	Assembled kits: \$11.00/each	Unassembled Packs: \$80.00/pack	Refill Packs: \$38.00/pack
<b>STO-116</b>	<b>A Medical Mystery of Epidemic Proportions</b>	Why is an epidemic spreading so rapidly? Explore a case study about a cholera epidemic. Conduct lab tests and develop a plan for preventing spread of the disease.	Assembled kits: \$14.00/each	Unassembled Packs: \$105.00/pack	Refill Packs: \$42.00/pack
<b>STO-117</b>	<b>Diagnosing Diabetes</b>	Analyze simulated blood plasma samples to determine if a patient has Type 1 or Type 2 diabetes.	Assembled kits: \$12.00/each	Unassembled Packs: \$83.00/pack	Refill Packs: \$38.00/pack
		<b>Also available in Spanish! Diagnosticar la Diabetes (STO-117S)</b>			
<b>STO-118</b>	<b>A Kidney Problem?</b>	Analyze a simulated urine sample. Create a model to learn about kidney function.	Assembled kits: \$13.00/each	Unassembled Packs: \$90.00/pack	Refill Packs: \$20.00/pack
<b>STO-119</b>	<b>Enzymes and Lactose Intolerance</b>	Model the action of the enzyme lactase. Conduct tests to determine if LACTAID digests lactose. Design and conduct an experiment to determine if acid interferes with the enzyme in LACTAID.	Assembled kits: \$14.00/each	Unassembled Packs: \$98.00/pack	Refill Packs: \$45.00/pack

- STO-120 Stem Cells** Use simulated stem cells and growth factors to learn how stem cells differentiate into specialized cell types.  
Assembled kits: \$12.00/each Unassembled Packs: \$83.00/pack Refill Packs: \$36.00/pack
- STO-121 Keeping a Balance: Homeostasis & Negative Feedback** Use simulations and a graphic organizer to learn how negative feedback mechanisms are used to maintain homeostasis.  
Assembled kits: \$11.00/each Unassembled Packs: \$75.00/pack Refill Packs: \$23.00/pack
- STO-122 Modeling Photosynthesis and Cellular Respiration** Create simple snap bead models to illustrate the reactants and products of photosynthesis and cellular respiration.  
Assembled kits: \$11.00/each Unassembled Packs: \$68.00/pack Refill Packs: *not available*
- STO-123 Yeast Populations** Determine the population size, environmental pH, and amount of sugar in yeast population samples.  
Assembled kits: \$12.00/each Unassembled Packs: \$68.00/pack Refill Packs: \$27.00/pack
- STO-124 Experimenting: Factors that Affect Sponge Egg Hatching** Conduct a controlled experiment to determine the effect of temperature on the hatching of “sponge eggs”. Test a claim that using *HatchFast* speeds up “sponge egg” hatching.  
Assembled kits: \$13.00/each Unassembled Packs: \$100.00/pack Refill Packs: \$47.00/pack
- STO-125 Beadle Plasticus Evolution** How do different environments affect the frequencies of characteristics in a population?  
Assembled kits: \$12.00/each Unassembled Packs: \$85.00/pack Refill Packs: *not available*
- STO-126 Genetic Testing for Huntington’s Disease** Use models, pedigrees, and simulated genetic testing to understand family members’ chances of inheriting the gene for Huntington’s disease.  
Assembled kits: \$13.00/each Unassembled Packs: \$80.00/pack Refill Packs: \$30.00/pack
- STO-127 Kidnapped** Which suspect kidnapped a wealthy celebrity? Conduct simulated forensic tests to find out.  
Assembled kits: \$15.00/each Unassembled Packs: \$120.00/pack Refill Packs: \$50.00/pack
- STO-128 Mercury Poisoning** Learn about the effects of mercury poisoning on the brain. Then, model the flow of energy and toxins through an ecosystem to simulate biological magnification of environmental toxins.  
Assembled kits: \$9.00/each Unassembled Packs: \$60.00/pack Refill Packs: *not available*
- STO-129 Use of Animals for Medical Testing** Compare the human nervous system with the nervous systems of mice, cats, and baboons, and explore cost factors and ethical issues involved in animal testing.  
Assembled kits: \$14.00/each Unassembled Packs: \$105.00/pack Refill Packs: \$40.00/pack
- STO-130 Birth Defects and Folic Acid** A pregnant woman is concerned that her developing baby is at risk for spina bifida. Test the mother’s “blood” and “amniotic fluid” for alpha-fetoprotein. Interpret the results of a sonogram.  
Assembled kits: \$14.00/each Unassembled Packs: \$105.00/pack Refill Packs: \$32.00/pack
- STO-131 Brain Reward Pathway and Addiction** Learn about the role of the brain reward pathway and dopamine in addiction. Compare the effects of sugar on brain dopamine and behavior.  
Assembled kits: \$10.00/each Unassembled Packs: \$75.00/pack Refill Packs: \$27.00/pack
- STO-132 Testing for Genetic Disorders that Cause Brain Damage** Follow the case of twins who have newborn screening for genetic disorders. Explore inheritance of the gene that causes PKU using a Punnett square and simulated gene testing.  
Assembled kits: \$16.00/each Unassembled Packs: \$120.00/pack Refill Packs: \$55.00/pack
- STO-133 Cell Communication** Create a model to illustrate cell communication. They apply this model to understanding cell communication involved in regulating blood sugar level and in nerve cell action.  
Assembled kits: \$11.00/each Unassembled Packs: \$80.00/pack Refill Packs: *not available*
- STO-134 Genetic Engineering: Way to Grow** Conduct simulated tests to determine what is causing a child’s slow growth. Then, model how genetic engineering could be used to create bacteria that produce human growth hormone.  
Assembled kits: \$11.00/each Unassembled Packs: \$85.00/pack Refill Packs: \$30.00/pack
- STO-135 Hand on a Hot Stove** Model the neuron pathways involved in reflex actions, conscious sensations, voluntary movements, and memories. Then, diagnose the sites of nerve damage for six patients.  
Assembled kits: \$12.00/each Unassembled Packs: \$85.00/pack Refill Packs: *not available*

- STO-136**    **Disease Detectives**    Use symptoms and laboratory tests to diagnose which disease is causing a patient's fever and severe headache. Explore the importance of vaccinations to prevent meningitis.  
 Assembled kits: \$13.00/each    Unassembled Packs: \$90.00/pack    Refill Packs: \$36.00/pack
- STO-137**    **Brains Under the Influence**    What factors affect blood alcohol concentration? Conduct simulated blood alcohol tests and learn about alcohol poisoning and the effects of binge drinking on teens' brains.  
 Assembled kits: \$10.00/each    Unassembled Packs: \$78.00/pack    Refill Packs: \$40.00/pack
- STO-138**    **Pathogens, Antibodies, and Vaccines**    How does the immune response protect against diseases caused by bacteria? Model antigen-antibody interactions. Then, measure and compare antibody levels in unvaccinated and vaccinated children.  
 Assembled kits: \$18.00/each    Unassembled Packs: \$150.00/pack    Refill Packs: \$55.00/pack
- STO-139**    **Life Support for a Developing Baby**    Create a model placenta and investigate whether alcohol and viruses can move from a mother's blood to her developing baby. Explore the effects of prenatal exposure to hazardous substances and pathogens.  
 Assembled kits: \$16.00/each    Unassembled Packs: \$130.00/pack    Refill Packs: \$60.00/pack
- STO-140**    **A Case of Food Poisoning**    What is causing an outbreak of foodborne illness in a community? Conduct simulated tests to determine the pathogen causing the illness and the source of food contamination.  
 Assembled kits: \$13.00/each    Unassembled Packs: \$98.00/pack    Refill Packs: \$55.00/pack
- STO-141**    **Taste Blind**    Why can some people taste PTC while others cannot? Learn about the parts of the nervous system involved in tasting. Interpret a pedigree and a simulated electrophoresis gel to learn about the genetics of PTC tasting.  
 Assembled kits: \$11.00/each    Unassembled Packs: \$75.00/pack    Refill Packs: \$33.00/pack
- STO-142**    **Atoms, Isotopes, and Ions**    Use plastic chips and a periodic table to model sub-atomic particles in atoms, isotopes and ions.  
 Assembled kits: \$10.00/each    Unassembled Packs: \$70.00/pack    Refill Packs: *not available*
- STO-143**    **Gene Switches**    How do bacteria turn genes on and off? Make a model of the lac operon and simulate gene regulation.  
 Assembled kits: \$10.00/each    Unassembled Packs: \$70.00/pack    Refill Packs: *not available*
- STO-144**    **Plants in a Bottle: Photosynthesis and Respiration**    Conduct simulated tests to investigate the amounts of oxygen produced and used by aquatic plants under various environmental conditions.  
 Assembled kits: \$12.00/each    Unassembled Packs: \$95.00/pack    Refill Packs: \$38.00/pack
- STO-145**    **A Bang to the Head**    Explore the causes, effects, diagnosis, treatment, and prevention of concussions.  
 Assembled kits: \$11.00/each    Unassembled Packs: \$80.00/pack    Refill Packs: \$39.00/pack
- STO-146**    **Breast Cancer Risk: Genes and the Environment**    Use a pedigree, conduct simulated DNA tests, and analyze environmental exposure data to explore environmental and genetic risk factors for developing breast cancer.  
 Assembled kits: \$12.00/each    Unassembled Packs: \$80.00/pack    Refill Packs: \$34.00/pack
- STO-147**    **A Case of Pesticide Poisoning**    Explore the case of a family poisoning by household pesticides. Conduct simulated blood tests. Interpret pesticide labels to determine safe use practices. Model how pesticides affect aquatic ecosystems.  
 Assembled kits: \$18.00/each    Unassembled Packs: \$155.00/pack    Refill Packs: \$28.00/pack

**Volume discounts are available: 10-24 of any item = 5% discount    25+ of any item = 10% discount**

Prices are subject to change without notice. Visit us online for current pricing information.

[www.sciencetakeout.com](http://www.sciencetakeout.com)

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