

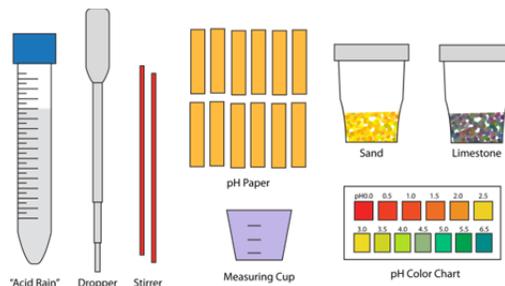
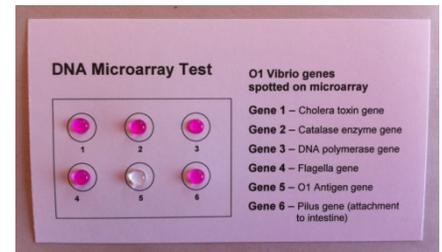
### Developed and field tested by experienced educators.

Science Take-Out kits are designed by experienced science educators who understand the diverse needs of teachers and their students. The Science Take-Out team has extensive expertise in curriculum development, classroom instructions, and assessment. All Science Take-Out kits are thoroughly field tested to ensure that they are student friendly, teacher friendly, and meet significant learning objectives.



### 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!



### ◆ Ready-to-Go ◆

Each Science Take-Out kit contains all the materials and instructions needed to complete the lab activity. Safety goggles, water, and scissors are the only materials not provided in the kits.

### 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.

### ◆ 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.

### ◆ Student Friendly ◆

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

### ◆ 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.



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		

### ◆ 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.

**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 to learn how dialysis removes wastes from the blood of a patient with kidney failure.	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? Perform laboratory tests and analyze the results to determine who should donate a kidney to the patient.	Assembled kits: \$15.00/each	Unassembled Packs: \$115.00/pack	Refill Packs: \$50.00/pack
<b>STO-103</b>	<b>Yeast Respiration</b>	Does yeast respiration occur more efficiently at warm or cool temperatures? Is honey or table sugar better for yeast respiration? Design and conduct your own experiment to answer this question.	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>	Why are <i>Beebop</i> babies in the same family different? Model how sexual reproduction results in offspring with different characteristics. Explore how natural selection affects gene frequency.	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? Model how the coded information in genes results in proteins that perform specific functions in the body.	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>	Why does acid rain decrease the pH of some lakes and not others? Explore how lake bottom materials can keep the pH of lakes constant.	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>	How do scientists identify organisms? Use a dichotomous key to identify a collection of plastic frogs. Then, design and test your own dichotomous key to identify plastic lizards.	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>	How many plastic spiders are hiding in simulated "leaf litter"? Use the mark-recapture population sampling technique 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 and determine what molecules diffuse through the pores of a cell membrane. Learn how osmosis affects cells placed in different environments.	Assembled kits: \$12.00/each	Unassembled Packs: \$80.00/pack	Refill Packs: \$24.00/pack
<b>STO-113</b>	<b>Flower Forensics</b>	Compare a rare black orchid with three possible (illegal) clones. 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>	What is causing the pollution in Big Lake? Is it the dairy farm, landfill or factory? Conduct and analyze simulated water tests for nitrates, PCBs, <i>E. coli</i> , and lead. Learn about potential health effects of pollution.	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

- STO-117 Diagnosing Diabetes** Why does a patient have high blood sugar? Analyze simulated blood plasma samples collected during a glucose tolerance test to determine if your patient has Type 1 or Type 2 diabetes.  
Assembled kits: \$12.00/each Unassembled Packs: \$83.00/pack Refill Packs: \$38.00/pack  
**Also available in Spanish! Diagnosticar la Diabetes (STO-117S)**
- STO-118 A Kidney Problem?** Analyze simulated urine samples to determine if your patient's symptoms might be caused by kidney disease. Create a model to learn about normal kidney function.  
Assembled kits: \$13.00/each Unassembled Packs: \$90.00/pack Refill Packs: \$20.00/pack
- STO-119 Enzymes and Lactose Intolerance** Model the action of the enzyme lactase. Conduct tests to determine whether 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** What is the difference between adult and embryonic 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** Test samples from a yeast population to determine yeast population size, the pH of the environment, and the amount of sugar present.  
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 the 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** Model the effects of two different environments on the frequencies of characteristics in a simulated *Beadle plasticus* 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 and pedigrees to understand Jenny's chances of inheriting the gene for Huntington's disease. Perform a simulated genetic test to determine if Jenny or other family members have inherited 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 determine who committed the crime.  
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** Follow the case of a pregnant woman who 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** Explore the case of a man who may be addicted to *Floratryp*. Learn about the role of the brain reward pathway and dopamine in addiction. Compare the effects of sugar, cocaine, and *Floratryp* 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. Conduct simulated newborn screening tests and follow-up blood tests. Explore inheritance of the gene that causes PKU using a Punnett square and simulated genetic 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 following exposure to pathogens 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 that can cause birth defects.  
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

**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)