



June 16, 2017

Dear Mr. Francis,

Thank you for your request for our tender on Bid# 15-18 Southside High School Science Equipment & Supplies.

This letter is to acknowledge our receipt of said request and to advise you that Fisher Scientific will be submitting our proposal before June 19th at 11:30 am.

I have personally worked with the Lafayette Parish School System. I know how important it is to not only offer equipment and supplies at the lowest prices but to also be attentive and responsive to ongoing requests.

- The Lafayette Parish School System currently receives a 28% contract discount with Fisher Scientific. For this bid, I have offered additional discounts and increased price reductions due to the overall size of this order and recent purchase history with Fisher Scientific.
- Current in stock items are available today as of 6/16/17. Availability of items is subject to change between 6/17/17 and 7/19/17. Out of stock items are currently listed as backordered and availability for these items are also subject to change before 7/19/17.
- I currently am assisting LPSS's K-12 Science Academic Specialist, Dr. Shauna LeBlanc with science equipment/supplies for the district.
- Warehouse Coordinator, Katie Sales and I have worked with each other to ensure items have been delivered promptly and correctly. Any issues with damages or non-shipments have been rectified immediately to ensure delivery timeframes are met.
- I have personally assisted LPSS's budget and accounting team with Fisher invoice concerns and processing.

It has been our pleasure assisting and facilitating the Lafayette Parish School System with their science equipment and supply needs. We hope to continue our partnership with LPSS and Fisher Scientific values your continued business!

Sincerely,

Vijay Varma

Direct Sales Representative

**SPECIFICATIONS AND BID FORM FOR
SCIENCE EQUIPMENT & SUPPLIES, BID # 15-18**

Sealed bids will be received by the Lafayette Parish School System (LPSS) Purchasing Department, 113 Chaplin Drive, Lafayette, LA up to 11:00 a.m. C. S. T., on June 8, 2017 for Science Equipment and Supplies.

All bids shall be submitted sealed to the LPSS Purchasing Department on or before the above time and date, at 113 Chaplin Drive, Lafayette, LA 70508 with a sealed envelope plainly marked "Scaled Bid 15-18, Science Equipment and Supplies, opening June 8, 2017 at 11:00 am". **ALL BIDS SHALL BE SENT BY REGISTERED OR CERTIFIED MAIL WITH A RETURN RECEIPT REQUESTED.** At the above time and place bids will be publicly opened and read aloud in the Personnel Conference room.

SPECIAL PROVISIONS

1. SCOPE:

1.1 The intent of this solicitation is to obtain competitive bids for the estimated annual requirements for **SCIENCE EQUIPMENT & SUPPLIES** for Southside High School in the Lafayette Parish School District, in accordance with the terms, conditions and specifications contained herein.

1.2 **REQUIRED BID SUBMITTALS:** The section titled **BID PROPOSAL FORM** and the following supplemental information must be submitted within the time frames specified below. **FAILURE TO SUBMIT THE REQUIRED LITERATURE SHALL BE CAUSE FOR REJECTION OF THAT ITEM.**

a. Paragraph 5.2 requires descriptive literature to be provided with the bid if an item is offered as an equal to the brand name specified.

2. PERIOD OF CONTRACT:

2.1 The period of this contract shall be from date of award through June 30, 2018.

3. PRICES AND PRICE ADJUSTMENT:

3.1 All prices/discounts shall be F.O.B. Destination and shall include all charges that may be imposed in fulfilling the terms of this contract. Prices/discounts shall remain firm for the duration of the contract.

3.2 Whenever there is a reduction in price which is lower than the contract price, offered to similarly situated customers contracting for the same period and under the same terms and conditions, said reduction must be presented directly to the Purchasing Department of the Lafayette Parish School System.

Prices may not exceed the national advertised and available General Services Administration (GSA) governmental price list.

The Lafayette Parish School System does not intend to award or to maintain any item in any group that is offered at a price equal or above the manufacturer's list price.

4. QUANTITIES:

4.1 The quantities specified on the Pricing Schedule are estimated only, and are given for the information of bidders and for the purpose of bid evaluation. They do not indicate the actual quantity that will be ordered, since such volume will depend upon requirements that develop during the contract period. The awarded bidder will be required to fill all orders placed regardless of the original quantities shown.

5. SPECIFICATIONS AND LITERATURE:

- 5.1 Brand name(s) and/or catalog number(s) are given for purposes of identification and to denote the standard of quality desired, and do not, in any way, restrict bidders to a specific make and manufacturer. If there is any deviation in the pack, source, quality, etc., of an item bid from that prescribed in the specification, the appropriate line in the specifications is to be ruled out and the substitution clearly indicated. Substitutions must be functionally equivalent to the item specified.
- 5.2 Each bidder is required to furnish, with his bid, catalog cuts and/or descriptive literature with full illustrations and detailed specifications for each item offered "as equal" to the brand name specified. In addition, all differences in specifications from brand name must be so marked. Descriptive literature is required for the purpose of bid evaluation and award, details of the product(s) the bidder proposes to furnish as to design, materials, method of manufacture, construction, assembly or operation, as appropriate. **FAILURE TO SUBMIT THE DESCRIPTIVE LITERATURE SHALL BE CAUSE FOR REJECTION OF BID.**

6. QUOTATION LIMITATION:

- 6.1 Bidders shall offer only **ONE ITEM AND PRICE for each line item bid**. If an "or approved equal" item is to be bid, the bidder must bid a brand and model that meets or exceeds the specified item and submit his bid for that item. A discount price offered for a quantity purchase of the same manufacturer and model would not be considered a limitation; however, only the unit price requested will be considered in award.
- 6.2 Bidders shall not require a minimum order quantity.

7. TIME OF PERFORMANCE:

- 7.1 The winning bidder(s) shall be required to deliver the respective items within 15 days of receipt of a purchase order from LPSS and at the location specified in accordance with Section 8.1 of this bid.

8. DELIVERY:

- 8.1 Deliveries will be made to various locations in Lafayette Parish. Delivery location shall be stated on each purchase order issued.
- 8.2 Warehouse deliveries for the Lafayette Parish Public School System (LPSS), Warehouse Department, 113 Chaplin Drive, Lafayette, Louisiana 70508, will be received between the hours of 7:30 a.m. and 4:00 p.m., Monday through Friday, except School System Holidays.
- 8.3 Inside delivery direct to schools, centers or LPSS agencies will include off-loading from the selected carrier and carrying inside the receiving school, center or LPSS agency. Receiving hours will be from 8:30 a.m. through 3:30 p.m., Monday through Friday, except School System Holidays, unless other arrangements have been made with the receiving school, center or LPSS agency.

9. DELIVERY FAILURE:

- 9.1 Bidders are **CAUTIONED** to consider carefully the delivery time they indicate for each item, as they will be required to adhere to that delivery time.

10. SHIPPING AND MARKING:

- 10.1 The bidder will be required to mark all shipments with the Lafayette Parish School System purchase order number clearly visible on the exterior of each container. A packing slip must be furnished with each shipment, listing, in addition to the bidder's stock number and description, the purchase order number, the

purchase order item number, the quantity ordered, the quantity shipped, and the quantity back ordered.

10.2 The bidder shall ensure that all items that are "drop-shipped" are properly marked as outlined in Paragraph 10.1.

10.3 Invoices and all related written materials pertaining to each delivery must show the purchase order number, the purchase order item number, and the item number shown on the contract.

11. SUBMISSION OF BIDS:

11.1 Each bidder must use the attached bid form for submitting their bid. Bidder must show unit price and delivery time (ARO) for each item for which a bid is submitted. By executing the Bid Proposal Form, the bidder acknowledges that he has read this Invitation, understands it, and agrees to be bound by its terms and conditions. Bids may be submitted by mail or delivered in person. All bids must be received by a Purchasing Department Buyer at the following location prior to the date and time specified: Purchasing Department, 113 Chaplin Drive, Lafayette, Louisiana 70508.

11.2 Electronic bids maybe submitted online at www.centralauctionhouse.com.

11.3 Bids received after the time or date prescribed shall not be considered for award and shall be returned to the Bidder.

Bidder's envelope must be labeled as follows:
Science Equipment and Supplies Bid # 15-18
Opening: June 8, 2017
Time: 11:00 am
Personnel Conference Room

12. CONTRACT AWARD:

12.1 All items listed in this solicitation will be awarded on the basis of a firm fixed price.

12.2 If awarded, the LPSS will award the contract to the lowest responsive and responsible bidder. The LPSS reserves the right to award the contract in the aggregate or to make a split award to more than one bidder, whichever is in the best interest of the public.

13. PURCHASE ORDER:

13.1 Purchase order(s) for the items listed in this solicitation will be issued as required throughout the period of this contract and will become an integral part of the resulting contract. The purchase order indicates that sufficient funds have been obligated.

13.2 The purchase order does not supersede any provision of the resulting contract. Performance time and dates are determined solely by the contract and any modification thereto.

13.3 Shipment is not to begin until receipt of the purchase order or other notification by the Purchasing Agent to proceed.

14. ORDER OF PRECEDENCE:

14.1 In the event of conflict, the Special Provisions of this contract shall take precedence over the General Conditions and Instructions to Bidders, included herein.

15. CONTACT FOR ADMINISTRATION:

- 15.1 In the event a contract is executed with your firm as a result of this solicitation, indicate the person(s) we may contact for prompt contract administration in the space provided on the Bid Proposal Form.

16. EMERGENCY PURCHASES:

- 16.1 The Parish reserves the right to make emergency purchases from other sources, should the awarded bidder be unable to furnish the required item within the required time frame.

17. INTERPRETATION OF BID:

- 17.1 Any questions pertaining to this solicitation shall be directed to:
Lee Francis, Purchasing Agent
Lafayette Parish School Board
P.O. Drawer 2158
Lafayette, Louisiana 70502-2158
Telephone Number: (337) 521-7329

GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS Rev.5/10/16

(Bidder: The general rules and conditions that follow apply to all purchases and become a definite part of each formal invitation to bid, purchase order or other award issued by the Lafayette Parish School Board, unless otherwise specified. Bidders are expected to fully inform themselves as to the conditions, requirements, and specifications before submitting bids: failure to do so will be at the bidder's own risk and he cannot secure relief on the plea of error).

INSTRUCTIONS

SUBMITTING OF SEALED BIDS

A. Option 1 – Electronic Bids Submitted Online:

1. Electronic bids may be submitted online at www.centralauctionhouse.com.

Option 2 – Sealed Bid Envelope:

1. The bidder shall be solely responsible for the timely furnishing of bids. In order to guarantee the timely furnishing of bids, the bid must be returned by certified, registered mail with a return receipt requested, or hand delivered. The LPSB will not accept responsibility or guarantee the timeliness of bids received by any other means.
2. All bids must be received in the envelope provided with the invitation to bid or in an envelope labeled as follows: "SEALED BID". Bid/Project Description, Bid Number, Opening Date and Time, Bidder's Company Name and bidder's number (if applicable toward public works project). The LPSB shall not be responsible if a bid is not received due to lack of improper labeling of the envelope.
3. Bid shall be submitted under separate cover. The Board shall not be responsible for bid if not submitted under separate cover.

Bid Forms:

1. Bids must be submitted on the forms furnished in the bid package.

2. **Signature:** Bid forms must be signed in ink. Typed, printed or stamped names shall be reason to reject the bid. An unsigned bid shall be considered a **"NO BID"**.

3. The signature page of the bid document and a signed debarment certification form must be provided with a bidders bid response.

4. The forms should not be detached from the specifications of which it forms a part.

5. **Completeness:**

- a. All information required in the bid must be supplied to constitute a proper bid.
- b. On lines provided, the bidder must insert the manufacturer's brand name and identifying numbers along with any other information necessary to sufficiently identify the article(s) offered. Failure to do so may prevent consideration of the item bid.
- c. Failure on the part of any bidder to supply all required information shall be cause to reject said bid from consideration.

5. **Place, Date and Hour:**

- a. All bids shall be submitted to the location specified.
- b. The bid form designates the date and hour of the bid opening. Bids shall be received until the stated date and time: bids arriving after the started date and time **will not be considered**. The responsibility for timely delivery of bids rests solely with the bidder.

6. **Response to Invitations:** In the event you cannot submit a bid, please return the bid package with an explanation why you are unable to bid on these requirements. The large number of firms on the bid list makes it necessary to delete from the **"NOTIFICATION TO BID LIST"** bidders who fail to respond to three successive invitations to bid.

7. **Bid Response:** More than one offer from an individual, firm, partnership, corporation or association under the same or different name will be rejected. Bidders shall offer only **ONE ITEM AND PRICE** for each line item bid. No alternatives will be accepted, unless requested by the LPSS. If an "equivalent" item is to be bid, the bidder must select the brand and model that is functionally equivalent to the specified item and submit his bid for that item. A discount price offered for a quantity purchase of the same manufacturer and model would not be considered a limitation; however, only the unit price requested will be considered in award.

C. **Specifications:**

1. Specifying of certain brand, catalog number, make or manufacturer is to denote the quality, type and standard of the article desired that has been cited as meeting the needs of the Lafayette Parish School Board; however, bids are invited that are comparable products that would equally satisfy requirements stated herein.

2. Articles offered must be new merchandise (unless specifically excepted) and must be of equal or superior grade.

3. **Questions Regarding Specifications:** Any information relative to interpretation of specifications and drawings shall be requested of the Board in writing. Any interpretation made to prospective bidders will be expressed as an addendum to the specifications which, if issued, will be sent to all prospective bidders no later than three (3) days before the date set for opening of bids. Oral answers will not be binding on the Board.

D. Technical Data:

1. COMPLETE MANUFACTURER'S SPECIFICATIONS MUST ACCOMPANY ALL BIDS WHEN BIDDING AN ALTERNATE. FAILURE TO SUBMIT COMPLETE MANUFACTURER'S SPECIFICATIONS WILL BE REASON TO REJECT THE BID.

2. All deviations from the specifications must be noted in detail by the bidder, in writing, at the time of submittal on the formal bid where specified. The absence of a written list of specification deviations at the time of submittal of the bid will hold the bidder strictly accountable to the Lafayette Parish School Board to the specifications as written.

E. Bid Samples: When required as stated in the Bid Proposal. (May be required after bid opening for evaluation purposes.)

1. **Submittal:** Samples shall be submitted to the Lafayette Parish School Board Purchasing Department, at the same location as the bid opening, **no later than the date and hour of the bid opening.**

2. **Identification:** Each sample shall be identified with the bidder's name, bid number, bid item number, product trade name and identification (catalog number, model number, etc.), and/or as otherwise indicated in the bid invitation forms.

3. **Payment for Samples:** The Board will buy no samples and will assume no-cost incidental thereto. When samples are requested, they must be sent prepaid and within the specified time.

4. **Return of Samples:** Samples not destroyed in testing must be claimed by bidders within fourteen (14) days after bid award date. The Board will assume no responsibility for samples not claimed within the time specified, and it will pay for no samples damaged in testing.

5. **Rejection:** Failure to provide requested sample within specified time may result in forfeiture of award.

6. **Demonstration/Evaluation:** The Board reserves the right to request a demonstration in order to properly evaluate any item(s) on the bid. Failure to demonstrate as requested without reason acceptable to the Board shall be reason to reject the bid.

F. Warranty:

1. Bidder guarantees to replace or repair at his expense all materials of his supply found to be defective within one (1) year from the day of delivery where such defects are due to defective materials and/or workmanship. This is to include any freight/delivery charges required for shipping to or from the particular Lafayette Parish School Board facility.

2. Warranty repair/service for equipment will be performed at the school when possible.

G. Asbestos:

No asbestos material or asbestos containing material shall be a part of or included in any product sold or furnished to the Lafayette Parish School Board by any person or supplier.

H. Non-Collusion:

Vendors, by submitting a signed bid, certify that the accompanying bid is not the result of, or affected

by, any unlawful act of collusion with any person or company engaged in the same line of business or commerce, or any other fraudulent act punishable under Louisiana or United States law.

I. Freight:

Delivery is to be made to the location(s) listed in the bid. All bid prices are to include delivery to the specified location(s). (F.O.B. destination).

J. Taxes:

In accordance with Act 1029, effective September 1, 1991, the Lafayette Parish School Board is exempt from Sales Tax on all purchases.

K. Evaluation of Offers:

1. The Lafayette Parish School Board, in making its award, will consider the lowest responsive bidder. The Lafayette Parish School Board reserves the right to reject any and/or all bids.

2. **Bids for All or Part:** With the exception of public works projects, the Board reserves the right to award on an "ALL-OR-NONE" and/or partial basis whichever is in the best interest of the Lafayette Parish School Board. Bidder may restrict his bid to consideration as "ALL-OR-NONE" by so stating, but shall give a unit price for each item; any bid in which the bidder names a total price for all the articles without quoting a price on each item shall be rejected.

3. **Cash Discounts:** Cash Discounts, if offered, will be taken in consideration in determining the low bid. **DISCOUNTS OF LESS THAN THIRTY (30) DAYS WILL NOT BE CONSIDERED IN MAKING AN AWARD.** Beginning date of discount period shall be determined by date of invoice or date of delivery of merchandise whichever occurs first.

4. All items listed in this solicitation will be awarded on the basis of a firm fixed price.

5. **Errors in Bids:** Bids containing errors may be withdrawn by the bidder in accordance with L.R.S. 38:3314.C. Erasures or changes in bids must be initialed.

6. **Tie Bids:** Tie bids will be decided on the basis of drawing lots, unless only one instate vendor is involved. In these cases, preference will be given to the instate vendor as provided for in L.R.S. 38.2225.C.

7. **Ability & Experience:** Considerations used for determining bidder responsibility include "financial ability, skill, integrity, business judgement, experience, reputation, quality of previous work on contracts, and any other similar factors bearing on bidders' ability to successfully perform the contract". Each proposal will receive equal consideration and special attention directed to the bidder's qualifications as provided for in L.R.S. 38.2216.C (2) (a).

L. Purchases Without Bid Security, Contracts & Performance (Delivery) Security

1. **Failure to Perform:** In the event a successful bidder fails to perform (deliver) on an awarded bid and no bid security and/or performance securities were required, the Board shall declare the bidder in default. The Board then has the option of excusing the bidder if it determines good cause exists or it may require a penalty as liquidated damages. In the event a penalty is directed, it shall be the Board's option to invoke the following:

a. Payment to the Board in the amount equal to the difference between the unit price bid times the quantity

on an item to item basis of that of the successful bidder and the next responsible low bidder(s) and/or

b. If it becomes necessary to re-bid, payment to the Board in the amount equal to the difference between the unit price times the quantity on an item basis of that of the successful bidder on the original bid and that of the lowest responsible bidder(s) on the re-bid.

M. Change or Withdrawal of Bids:

1. **Change or Withdrawal Prior to Bid Opening:** Should any bidder desire to change or withdraw his bid he shall do so prior to the date and hour of the opening.

2. **Withdrawal After Bid Opening-But Prior to Bid Award:** No bid may be withdrawn after the scheduled closing time for receipt of bids for sixty (60) calendar days, except as provided in Section 2214 of L.R.S. Title 38, which states the bidder shall give notice in writing of his claim of right to withdraw his bid within forty-eight hours after the conclusion of the bid opening procedure.

N. Rejection of Bids:

The Board reserves the right to reject any and all bids for just cause. In accordance with L.R.S. 38:2212(1)(1)(b) those stated in the advertisement for bids, and those requirements in the bid packet shall not be considered informalities and shall not be waived by any public entity.

O. Award & Acceptance:

1. **Bid Tabulation:** Copy of bid tabulation may be received upon written request and by submitting a stamped, self-addressed envelope.

2. If awarded, the LPSS will award the contract to the lowest responsive and responsible bidder. The LPSS reserves the right to award the contract in the aggregate or to make a split award to more than one bidder, whichever is in the best interest of the public.

3. **Notice of Acceptance:** A written award in the form of a purchase order, contract, written notice of award of any combination of these three to the successful bidder shall be deemed to result in a binding contract for the purchase of materials or supplies without further action by either party as provided for in L.R.S. 38:2216.B. If the bid and resulting award regards the construction of doing of any public works, a written contract must be entered into according to L.R.S. 38:2216.A(1).

P. Delivery Provisions:

1. Shipment is not to begin until receipt of the purchase order or other notification by the Purchasing Agent to proceed. All deliveries of products shall be made within 45 days ARO designated, freight prepaid. At the time delivery is made an authorized agent must sign a dray receipt.

2. **Responsibility of Materials Shipped:** Successful bidder shall be responsible for the materials or supplies until they are delivered to the location(s) specified in the bid specifications. If materials or supplies are rejected they must be removed by and at the expense of the bidder promptly after notification of rejection.

3. **Inspections:** Inspection and acceptance of goods will be made after delivery.

4. **Time of Delivery:** Deliveries will be accepted between 8:30 A.M. and 3:30 P.M.

5. **Packing Slips or Delivery Tickets:** **ALL SHIPMENTS OR DELIVERIES** shall be accompanied by

Packing Slips or Delivery Tickets, and contain the following information:

- a. Purchase Order number,
- b. Name of the article and stock number (Supplier's),
- c. Quantity ordered,
- d. Back orders,
- e. Name of the vendor.

Q. Excluded Parties:

Bidders shall complete and sign the "Certification Regarding Debarment, Suspension, and Other Responsibility Matters Primary Covered Transactions" Form. This form must be included with the bid proposal.

BIDDERS ARE CAUTIONED THAT FAILURE TO COMPLY WITH THESE CONDITIONS SHALL BE CONSIDERED SUFFICIENT REASON FOR REFUSAL TO ACCEPT THE GOODS.

The Special Case of Meals:

Contracts which relate to school lunch program are exempt from the provisions and requirements contained herein.

(SPECIAL CONDITIONS found on succeeding pages always supersede the General Conditions).

LAFAYETTE PARISH SCHOOL BOARD

BILLY D. GUIDRY, EXECUTIVE DIRECTOR & CHIEF FINANCIAL OFFICER

<p style="text-align: center;">Certification Regarding Debarment, Suspension, and Other Responsibility Matters Primary Covered Transactions</p>
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This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 13 CFR Part 145. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211).

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations (13 CFR Part 145).
6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Covered Transactions," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the ineligibility of its principals. Each participant may, but is not required to, check the non-procurement List.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

DEBARMENT CERTIFICATION FORM

(1) The prospective primary participant certifies to the best of its knowledge and belief that it and its principals:

- (a) Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three-year period preceding this application been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
- (d) Have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective primary participant shall attach an explanation to this proposal.

Fisher Scientific Company LLC

Business Name (Fisher Science Education Business Unit)

Date June 14, 2017

By Jill Jones - General Manager

Name and Title of Authorized Representative



Signature of Authorized Representative

Envelope containing bid should be marked on the outside "Sealed Bid—Science Equipment and Supplies—#15-18, Opening June 8, 2017 at 11:00 am"

The bidder acknowledges receipt of addendum:

No.1 DATED 6/14/17 No.2 DATED _____ No.3 DATED _____ Addendum ALL 6/2/17
(v.2)

No.4 DATED 6/7/17 No.5 DATED _____ No.6 DATED _____

That I have read and agree to comply with and be subject to the provisions and/or penalties involved in the "General Conditions and Instructions to Prospective Bidders" and the "Specifications and Bid Form" as contained herein the bid documents.

****The Debarment Certification, Non-Segregated Facilities, Compliance Statement, RD Instructions 1940-Q, USDA AD-1048 Form must be signed and included with the bid form in addition to this page****

Fisher Scientific Company LLC
(Fisher Science Education Business Unit)

Name of Firm



Signature of Bidder

4500 Turnberry Drive
Hanover Park, IL 60133

Address

Jill Jones

Typed Name of Bidder

800-955-1177

Telephone Number

FSE.Bids@thermofisher.com

Email Address



United States Department of Agriculture

AD-1048

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
Lower Tier Covered Transactions**

The following statement is made in accordance with the Privacy Act of 1974 (5 U.S.C. § 552(a), as amended). This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, and 2 C.F.R. §§ 180.300, 180.355, Participants' responsibilities. The regulations were amended and published on August 31, 2005, in 70 Fed. Reg. 51865-51880. Copies of the regulations may be obtained by contacting the Department of Agriculture agency offering the proposed covered transaction.

According to the Paperwork Reduction Act of 1995 an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0505-0027. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The provisions of appropriate criminal and civil fraud privacy, and other statutes may be applicable to the information provided.

(Read Instructions On Page Two Before Completing Certification)

- A. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency;
- B. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

ORGANIZATION NAME

Fisher Scientific Company LLC (Fisher Science Education Business Unit)

PR/AWARD NUMBER OR PROJECT NAME

Bid #15-18 Science Equipment & Supplies

NAME(S) AND TITLE(S) OF AUTHORIZED REPRESENTATIVE(S)

Jill Jones - General Manager

SIGNATURE(S)

DATE

June 14, 2017

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, political beliefs, genetic information, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Assistant Secretary for Civil Rights, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, S.W., Stop 9410, Washington, DC 20250-9410, or call toll-free at (866) 632-9992 (English) or (800) 877-8339 (TDD) or (866) 377-8642 (English Federal-relay) or (800) 845-6136 (Spanish Federal-relay). USDA is an equal opportunity provider and employer.

Instructions for Certification

- (1) By signing and submitting this form, the prospective lower tier participant is providing the certification set out on page 1 in accordance with these instructions.
- (2) The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension or debarment.
- (3) The prospective lower tier participant shall provide immediate written notice to the person(s) to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- (4) The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549, at 2 C.F.R. Parts 180 and 417. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
- (5) The prospective lower tier participant agrees by submitting this form that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- (6) The prospective lower tier participant further agrees by submitting this form that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- (7) A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the System for Award Management (SAM) database.
- (8) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- (9) Except for transactions authorized under paragraph (5) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

CERTIFICATION FOR CONTRACTS, GRANTS AND LOANS


The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant or Federal loan, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant or loan.

2 If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant or loan, the undersigned shall complete and submit Standard Form - LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

3 The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including contracts, subcontracts, and subgrants under grants and loans) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.



(name)

Jill Jones

June 14, 2017
(date)

General Manager
(title)

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COMPLIANCE STATEMENT

This statement relates to a proposed contract with Fisher Scientific Company LLC (Fisher Science Education Business Unit)

(Name of borrower or grantee)

who expects to finance the contract with assistance from either the Rural Housing Service (RHS), Rural Business-Cooperative Service (RBS), or the Rural Utilities Service (RUS) or their successor agencies, United States Department of Agriculture (whether by a loan, grant, loan insurance, guarantee, or other form of financial assistance). I am the undersigned bidder or prospective contractor, I represent that:

1. ☒ I have, ☐ have not, participated in a previous contract or subcontract subject to Executive Order 11246 (regarding equal employment opportunity) or a preceding similar Executive Order.
2. If I have participated in such a contract or subcontract, ☒ I have, ☐ have not, filed all compliance reports that have been required to file in connection with the contract or subcontract.

If the proposed contract is for \$50,000 or more and I have 50 or more employees, I also represent that:

3. ☒ I have, ☐ have not previously had contracts subject to the written affirmative action programs requirements of the Secretary of Labor.
4. If I have participated in such a contract or subcontract, ☒ I have, ☐ have not developed and placed on file at each establishment affirmative action programs as required by the rules and regulations of the Secretary of Labor.

I understand that if I have failed to file any compliance reports that have been required of me, I am not eligible and will not be eligible to have my bid considered or to enter into the proposed contract unless and until I make an arrangement regarding such reports that is satisfactory to either the RHS, RBS or RUS, or to the office where the reports are required to be filed.

I also certify that I do not maintain or provide for my employees any segregated facilities at any of my establishments, and that I do not permit my employees to perform their services at any location, under my control, where segregated facilities are maintained. I certify further that I will not maintain or provide for my employees any segregated facilities at any of my establishments, and that I will not permit my employees to perform their services at any location, under my control, where segregated facilities are maintained. I agree that a breach of this certification is a violation of the Equal Opportunity clause in my contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and wash rooms, restaurants and other eating areas time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. I further agree that (except where I have obtained identical certifications for proposed subcontractors for specific time periods) I will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause; that I will retain such certifications in my files; and that I will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods): (See Reverse).

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays the valid OMB control number. The valid OMB control number for this information collection is 0575-0018. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS FOR
CERTIFICATIONS OF NON-SEGREGATED FACILITIES**

A certification of Nonsegregated Facilities, as required by the May 9, 1967, order (32F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a subcontract exceeding \$ 10,000 which is not exempt from the provisions of the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

Date June 14, 2017



(Signature of Bidder or Prospective Contractor)

4500 Turnberry Drive, Hanover Park, IL 60133

Address (including Zip Code)

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
1	S12892 Eisco Air Table Item Specification: The Eisco™ Air Table allows study of the following concepts: Elastic and inelastic collisions, linear and angular momentum, conservation of momentum, moment of inertia, centripetal force, simple and complex harmonic motion. 700 x 500mm with adjustable feet. Kit contains: (1) Air table, (2) Leveling Feet, (4) Installed Table Bumpers, (8) Air Pucks, (8) Velcro Bumpers, (8) Rail Pins, (8) 0.245 OZ Donut Masses, Air table is constructed of heavy gauge anodized steel, the workable surface is 65cm by 45cm with major graduation of 5cm and minor graduations of 5cm, Air pucks are made of durable plastic and masses can be added as well as Velcro bumpers for elastic or inelastic collisions, Air table has preinstalled flexible cable bumpers for doing movement, launches, collisions, and a variety of other physics experiments, rails above bumpers accept rail pins for designing custom experiments, Requires a blower, most air track blowers will work, the outer diameter of the air input is 3cm, recommended air source is EISCO PH0363 item currently on backorder	3	350.00
2	S90374 ALLIGATOR CLIP 4MM 15/PK Item Specification: Accepts 4mm test leads or any other 4mm Multilam plug, Not insulated With 4mm sockets Connection also possible with screw clamp or soldering. Sold in packs of 15, Model# U13805PK item currently in stock	6	6.83
3	S99624 ANGULAR MOMENTUM PHYSICS 1EA Item Specification: The masses on the demonstrator are removable, allowing for a greater range of demonstrations, The rod may be used with one of the movable masses to demonstrate a center of gravity paradox, where the rod is easier to balance with the mass extended to the far end of the rod and balanced up in the air, With two of the masses placed on the rod, angular momentum can be "felt" by rotating the rod with the masses near the center, and then apart on the ends, Helps to understand the classic "ice skater's spin", With three masses on the rod, students can mathematically calculate the necessary positions of the masses to allow the center of gravity to be determined at a given point, Helps to visualize counterbalance, Manufacturer: Science First 40100 item currently on backorder	6	25.76
4	S28116 L ARCHIMEDES PRINCIPLE APPARA Item Specification: To learn about Archimedes principle and buoyancy laws, Archimedes Principle Kit, Manufacturer: GSC ARCHKT item currently on backorder	3	4.47
5	S41381 NALGENE VACUUM PUMP POLYPRO Item Specification: Pumping capacity: 11.5L/min., Water consumption rate: 6.5L/min, Easily attaches to faucet, Ultimate vacuum: 28.5 in. (72.39cm) of Hg item currently in stock	3	18.69
6	S14530 SKX222:Ohaus; Scout Item Specification: Large, backlit LCD display, Multiple connectivity options like Bluetooth, Ethernet, USB and more, Rapid stabilization and high resolution, For classroom use, Stackable design, Kensington security slot (cable sold separately), Calibration mass Included (all models up to 620g), 6 different weighing units; g, kg, N, oz, lb, lb:oz, Powered by AC adapter (included) or by 4 AA batteries (not included), Integrated weigh-below hook, Transportation/storage lock, Manufacturer: OHAUS™ 30253030 item currently in stock	30	228.57
7	S04393A Spring Scale 100G/1N Item Specification: 0.22 lb capacity, 11.41 L x 5.9 W x 3.14 H (Inches), Acrylic, dual scale transparent spring scale, includes: zero adjustable device with flat easy-to-read a nodized metal scale item currently on backorder	18	3.67

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
8	S04707 BAROMETER WITH CLOCK Item Specification: Measures barometric pressure and graphically displays barometric trend Displays temperature and time of day/date, Adjustable altitude compensation from -900 to +3600 ft. (-300 to +1200m), Graphic barometric trend shows present reading and previous 1-, 3-, 6- and 12-hour readings in bar chart format, Forecasting indicators show weather conditions for next 12-hours using symbols for sunny, cloudy and rainy, Clock shows time in AM/PM or 24-hour format and date, May be wall mounted, Barometric range: 23.62 to 31.01 in.Hg / 800 to 1050mbar, Resolution: 0.063 in.Hg / 1mbar, Accuracy: ±6 mb (890 to 1020 mb), otherwise ±10 mb, Temperature range: -9° to 70°C (-22° to 158°F), Resolution: 0.5° Accuracy: ±1°C (between 0° and 40°C/32° and 104°F), otherwise ±2°C, Dimensions: 19.7 x 6.4 x 7.6cm (7.75 x 2.5 x 3 in.) item currently in stock	8	36.85
9	S02002 BINOCULARS Item Specification: 6X magnification with 35mm diameter lens, Field angle of 2.8°; visible area is within a cone of 2.8°, Focus range is from 10m to infinite, Colors may vary, Manufacturer: Learning Resources, IncSupplier Diversity Partner LER2421 item currently on backorder	8	8.45
10	S05831 NEW CALORIMETER Item Specification: Easily removable spring heating element unit, Operates on 3-6V DC 5w Consists of inner aluminum reservoir 150mL capacity, aluminum outer, plastic insulator ring and styrofoam lining to minimize heat loss, Lid accepts heating element, stirrer and thermometer cork includes cover cap, Manufacturer: EISCO PH0454 item currently on backorder	8	12.19
11	S90377 ADJUSTABLE PLATE CAPACITOR Item Specification: Consists of a fixed plate and a movable plate on a guide rail, Uses dual-scale ruler to measure plate spacing, Connect via 4mm safety jacks, Plate spacing: 0 to 5.9 in. (0 to 150mm), Plate diameter: 5.9 in. (149mm), Plate area: 175cm ² , Manufacturer: 3B Scientific™ U30040 item currently on backorder	8	152.00
12	S01396A PHYSICS MECHANICS 38 DIVER Item Specification: Hollow figure made of colored glass, with a narrow opening. Floats upright in a cylinder filled with water, Apply pressure on the rubber cap to make it float, sink or rise Rubber cap fits cylinder diameters of approx. 30 to 40mm, Manufacturer: 3B Scientific™ U14090 item currently on backorder	3	28.24
13	S96806 CENTRIPETAL FORCE PARADOX item currently on backorder Item Specification: Two floats serve as buoyant pendulums inside transparent jars filled with water, Since the floats are buoyant, they move in the same direction as the accelerating force: toward the axis of rotation, Manufacturer: Science FirstSupplier Diversity Partner 25115	1	70.53
14	S24659 CHARLES LAW DELUXE Item Specification: Precision machined die-cast zinc body, stainless steel blades, precision etchings, brass hardware, brass bold spring loaded blade assures firm, accurate settings, brass scriber and level, silver and black currently on backorder	1	94.06

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item Number	Item Description	Estimated Quantity	Unit Price
15	S02628 CLAMP UNIVERSAL W/ BOSSHEADCL Item Specification: Two prongs, diecast with other parts of plated brass, Includes boss head, 11.41 inches, Manufacturer: EISCO CH0679AB currently in stock	72	7.48
16	S41859 CLOUD APPARATUS BODLE TYPE Item Specification: Uses a glass jar as the chamber in which the cloud is produced Two-hole stopper on top of the apparatus is fitted with a pressure bulb Clouds form when the pressure produced by the bulb is suddenly reduced Red alcohol thermometer indicates the change in air temperature when pressure is lowered and a cloud forms, Manufacturer: American Educational Products 73011 currently on backorder	3	58.50
17	S97328 SMALL COLLISION BALL APPARATUS currently in stock Item Specification: For demonstrating Newton's third law of Motion and the principle of Conservation of Momentum, Manufacturer: American Educational Products 71379	6	8.09
18	S43153 COMPASS 45MM Item Specification: Open-face aluminum case, 1.78 in. dia. (45mm) Shows eight points of the compass, Raised dial; fully graduated to 360°, numbered every 20°, Manufacturer: United Scientific Supplies, Inc CWR 045W currently on backorder	36	3.09
19	S52054 COULOMBS LAW APPARATUS Item Specification: Used in PSSC experiments dealing with electrical forces and charges, Includes: Stable base, Draft shield, Support on which to suspend filaments, Viewing window, Measuring scales, Selection of electrostatic materials, Manufacturer: Science FirstSupplier Diversity Partner 14480 currently on backorder	3	36.40
20	S41851 DEW POINT APP MILLIKAN Item Specification: Utilizes the Millikan design widely used in high schools Neoprene aspirator bulb pumps air through liquid and lowers temperature until the dew point is reached, Includes: Stopper, glass tube fittings, thermometer, and instructions, Manufacturer: American Educational Products 7330 currently on backorder	6	42.25
21	S13925 ELECTRA DOUGH KIT INDIVIDUAL Item Specification: Electra Dough kit, Individual kit, Includes 1 Tub(16 oz) of Conducting Dough, 1 Tub(7 oz) of Insulating Dough, 1 Pair of Leads with Mini-Grabber & Spades, 1 Each 9 Volt Battery Connector, 1 Pack of 4 LEDs (Light Emitting Diodes), 1 Each Buzzer, Manufacturer: GSC ELECDGHIK currently on backorder	18	28.88
22	S96498 ELECTRICITY ELECTROSCOPE Item Specification: Glass and metal housing with 4mm sockets for grounding purposes, Pointer is mounted on a pivot bearing and is electrically insulated from metal housing, Transparent scale allows reading of the electrical charge, Dimensions: 6.7 x 3.9 x 8.3 in. (170 x 100 x 210mm), Scale: 0-6kV, Manufacturer: 3B Scientific™ U8532131 currently on backorder	3	216.59

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
23	S13467 ELECTROSTATIC SYSTEM Item Specification: Over 25 components, Use to teach different activities, Includes Activity Guides with Student worksheets, Activities Covered: Exploring Electrostatic Charge Using Rods and Cloths, Movement of Charge on an Object, Is There More Than One Type of Charge, Comparing Magnetic and Electrostatic Forces, The Electroscope, Conductors versus Insulators, Charging objects by Induction and Conduction, Voltaapostrophes Electrophorus, Coulomb's Law, The Conducting Cup, Faradayapostrophes Ice Pail, Includes: Wool cloth 26 x 26 cm 1, Silk cloth 1, Glass rod 1, Ebonite rod 1, Perspex rod 1, Wire stirrup 1, Polyethylene strip 1, Gold leaf electroscope 1, Gold leaf 1, Glass panes that go on either side of the electroscope 2, Metal conducting knob to collect charge on top of the electroscope 1, Metal conducting plate to collect charge on top of the electroscope 1, Metal conducting bucket (Faraday Pail) to collect charge of top of the electroscope 1, Pith balls connected by string 1, Pith ball electroscope stand 1, Base for electroscope or metal conductive spheres 3, Metal conducting spheres with insulating post (one with hole in the top) 2, Electrophorus disk with handle 1, Square polyethylene tile 1, Neon tube 1, Reel of nylon filament Diameter 0.20mm, spool of 25 m 1, Small electrophorus disk with handle 1, Manufacturer: EISCO EIRQ04 currently on backorder	3	203.36
24	S09587 ELECTROSTATIC CHARGE KIT Item Specification: Includes: Electrophorus with 15cm acrylic charge plate and insulating handle, six different friction rods, acetate cloth, polyethylene film, proof plane with 15mm ball, neon lamps, graphite ball with hook, 12 pith balls, and instruction manual, Manufacturer: GSC International ELSTCH01 currently on backorder	3	21.94
25	S304674 Disposable transfer pipetts Item Specification: Chemically inert, polyethylene pipets, Manufacturer: Thermo Scientific™ 274/EMD currently in stock	12	27.14
26	S96322 PARALLELGRM FORCE APPRTATUS EA Item Specification: Demonstrates the relationship between forces acting on a point, Includes: Demonstration board, 26 x 20 in. (66 x 51cm); two aluminum pulleys, 2.0 in. dia. (50mm); mounting clamps; three nickel-plated iron hangers, 1.76 oz. (50g); 12 slotted weights, each 1.76 oz. (50mm), Manufacturer: EISCO PH0346 currently in stock	3	57.85
27	S43227 FRICTION ROD LUCITE 9-1/2X3/8 Item Specification: friction rod, static electrcity, polarity and friction studies, lucite material, 9.5 inches length, 0.375 inch outside diameter, rounded on both ends, Manufacturer: Christensen Educational Materials 9098 currently in stock	8	2.86
28	S96563 FUNCTION GENERATOR Item Specification: electrical requirements: 230 ±10%V 50Hz, Generate electrical wave forms (sine, square, triangular) for classroom experiment, BIO2 Model, includes selector switch, Manufacturer: EISCO PH1296A currently on backorder	3	202.80
29	S23699 MOVING COIL GALVANOMETER Item Specification: Square clear acrylic front cover, Fully enclosed, Zero adjustment and connection terminals, Range: 1 to 0 to 1mA, Accuracy: +2.5%, Scale Length: 60mm, Overall Size: 125 x 80 x 80mm, Manufacturer: EISCO PH1084A currently on backorder	8	11.40

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
30	S43917 GENECON HAND-HELD GENERATOR Item Specification: One attachable parallel electric cord with two covered alligator clips is included, Made from transparent ABS resin (blue), Dimensions: 5.6 x 4.6 x 1.6 in. (14 x 11.5 x 4cm), Manufacturer: Nada Scientific LtdSupplier Diversity Partner B102632 currently in stock	3	45.66
31	S40959 GYROSCOPE Item Specification: Illustrates the principle of the gyroscope and rotational inertia Mounted in a heavy wire frame, 2.2 in. dia. (5.5cm) cast-metal gyroscope is held by a support base with a socket at the top end, Gyroscope comes with a long starting cord, Manufacturer: American Educational Products 7795 currently on backorder	3	16.90
32	S40965 GYROSCOPE BICYCLE WHEEL Item Specification: This 26.4 in. (66cm) bicycle wheel, when used with Rotating Platform (S40960B, sold separately), demonstrates the principles of gyroscopic motion, Wheel rotates on a ball-bearing axle and has handgrips, Rubber tire concentrates the mass at the wheel's rim, which produces a strong gyroscopic effect at relatively low rotational velocities, Protective shields prevent accidental contact when wheel is being held, and metal suspension loops at the end of each handle to hang wheel, Rotating Platform (S40960B) is sold separately, Manufacturer: Christensen Educational Materials 9091 currently on backorder	3	70.20
33	S96182A HALLS CARRIAGE W/GUIDE EA Item Specification: Sturdy carriage, Wheels and axles are mounted on hardened steel cone bearings for minimum friction and long life, Comes with Teachers Guide, Manufacturer: AMERICAN SCIENTIFIC 821111 currently on backorder	3	11.82
34	S96506 NUCLEAR HELMHOLTZ COILS Item Specification: This device is intended for experiments on induction for determination of e/m in conjunction with the electron-beam tube or cathode-ray tube. Coils can be switched in parallel or in series, A spring clip on the top crossbar is used to mount the Hall sensor during measurements of the magnetic field, Coil diameter: 11.6 in. (295mm), Coil spacing: 5.9 in. (150mm), Number of turns per coil: 124W, Enameled copper wire thickness: 0.05 in. (1.5mm) DC resistance: 1.2 each, Maximum coil current: 5A, Maximum coil voltage: 6V, Maximum flux density at 5A: 3.7mT, Weight: approx. 9 lb. (4.1kg), Manufacturer: 3B Scientific™ U8481500 currently in stock	1	602.55
35	S06896 PEARSONTIFICS HOOKE Item Specification: Experimental setup allows use of separate video analysis for the activity and verification of results to give a new dimension to the study of this core concept. Main Lab: inquiry activity to derive Hooke's Law, Extension One: simple harmonic motion (SHM), Extension Two: exploring the spring constant, Covers 12 Next Generation Science Standards Concepts, Covers 13 Common Core Standards, Approximately three hours of class/lab time material, 24 pages total, Student workbook is a guide for students to fill out as they work through the main lab and lab extensions, General Theory Section lays out the theory and mathematics behind the lesson plan, Experimental Teaching Guide helps teachers prepare lesson plans and lead inquiry or step-based activities, All labs and extensions include recommendations for video analysis setups, For use with Physical Science System Base (S06893) and Physical Science System Back Board (S06894), Includes: Three springs, nine weights, weight hanger, guide ruler attachment, mount rod, apparatus, extensive instructions to assist with lesson planning, student activities and experimental procedures, Manufacturer: EISCO PTHOKL currently on backorder	8	14.50

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
36	S07009 HOFFMAN ELECTROLYSIS APPARATUS Item Specification: Qualitative and quantitative study of electrolytic decomposition of electrolytes such as Water and hydrochloric Acid, Support stand, burette clamp, extension clamp, bosshead clamp, pair of platinum electrodes, pair of Carbon electrodes, activity guide, Manufacturer: United Scientific Supplies HEA001 currently on backorder	3	94.25
37	S06898 PEARSONTIFICS INCLINE AND CAR Item Specification: Students are challenged to use engineering and technology, in addition to basic mechanics, to complete different tasks. Main Lab: design a simple machine to accomplish multiple tasks, Extension One: static and kinetic friction of everyday objects, Extension Two: graphical representation of systems with constant acceleration, Covers 15 Next Generation Science Standards Concepts, Covers 17 Common Core Standards, Approximately three to four hours of class/lab time material, 28 pages in total, Student workbook is a guide for students to fill out as they work through the main lab and lab extensions, General Theory Section lays out the theory and mathematics behind the lesson plan, Experimental Teaching Guide helps teachers prepare lesson plans and lead inquiry or step-based activities, All labs and extensions include recommendations for video analysis setups, For use with Physical Science System Base (S06893), Includes: Extensive instructions to assist with lesson planning, student activities and experimental procedures; contains incline plane with track, mounting rods and hardware, car, pulley attachment and nylon cord, Manufacturer: EISCO PTIPCR currently on backorder	8	41.11
38	S43519X INDUCTION COIL 21N SPARK 220V NC1335471 Induction Coil Item Specification: 230v, limits current and extends the life of the vacuum discharge tubes, Induction coil, 2 inch spark, Manufacturer: ELECTRO TECHNIC PRODS 37713 currently on backorder (S43519X is no longer carried by Fisher, see attached specifications for sub item)	1	130.00
39	S05924 INERTIA DEMONSTRATOR Item Specification: Equipped with a steel ball and thin metal card, Spring-loaded catch mounted next to pillar, Card is tethered to the aluminum base for easy recovery after the experiment, Shipping weight: 5.5 oz. (156g); dimensions: 4.5 x 3 x 1.5 in. (11.4 x 7.6 x 3.8cm), Manufacturer: United Scientific Supplies, Inc IDEM01 currently on backorder	3	13.98
40	PI95034 3UV LAMP UVP 115 V 1 EA currently in stock Item Specification: Thermo Scientific™ Pierce UV Lamps are compact, multifunctional ultraviolet lamps with 252nm, 302nm and 365nm dial-selectable wavelength settings especially for use with photoactivatable crosslinkers and UV-crosslinking methods. The 3UV lamp from UVP is a compact ultraviolet lamp for longwave, midrange and shortwave UV applications. The lamp's innovative design allows you to dial-in the required wavelength with just the turn of a knob. The lamp is compatible with our extensive line of photo-reactive crosslinking and label-transfer reagents, including the photo-reactive amino acids for discovering in-cell protein interactions, Multifunctional – three lamps (254nm, 302nm, 365nm) selected by a turn of the dial, Efficient – unique reflector design provides maximum UV light for all applications, Lightweight and ergonomic – designed for hand-held or stationary use, Small footprint – 15.5 in. x 3 in. x 4.5 in. (394mm x 76mm x 114mm), Durable – lamp features aluminum construction and scratch-resistant finish, Versatile – 8-watt lamps are ideal for a wide area of illumination, such as culture plates, Validated for crosslinking – our researchers have validated this lamp for use in crosslinking applications with diazirine and phenyl azide photoactivatable crosslinkers, Manufacturer: Thermo Scientific™ 95034	1	645.40

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
41	S12847 LIGHT AND LASER OUTREACH KIT Item Specification: 3 LED (red, green, blue) lights with line generating caps, White LED One each red and a green LASER Blox, Set of 3 lenses (convex, concave and trapezoidal), 3 mirrors with supports, 10 protractors, 10 diffraction gratings, Manufacturer: ONPOINT LASERS LTD ORK001 currently on backorder	3	195.00
42	S13619 MOTION BALLS DRILLED STEEL currently on backorder Item Specification: A great for unit for students to easily visualize and grasp Newton's Second Law of Motion. The GSC Second Law of Motion helps students to visualize and grasp Newton's Second Law of Motion. This sturdy unit demonstrates that a horizontally projected ball and a vertically dropped ball land at the same time. Small and easy to use unit, Easy visual demonstration, Can clamp to a table or stand, Instructions included, Manufacturer: GSC 1476	3	16.35
43	S11552 VISIBLE LIGHT GEL VISUALIZ Item Specification: Safely enhance the visualization of DNA stained with FlashBlue™, proteins stained with Coomassie Blue and autoradiograms with the Edvotek White Light Box, Features a spacious 25 x 25cm (9.94 x 9.84 in.) viewing area, Illuminated by long life LEDs, Housed in a slim aluminum body, Does not include an amber gel viewing filter, Manufacturer: Edvotek™ 552 currently in stock	3	107.90
44	S96188 LINEAR EXPANSION APPRATUS EA Item Specification: Consists of a metal rod enclosed in a well-lagged, nickel-plated tube with three tubules for steam inlet, steam outlet and thermometer, Metal rod to be investigated is supported in the steam jacket by detachable rubber bungs at each end of tube, Apparatus is carried on heavy-gauge channel base with an adjusting screw at one end, At the opposite end is a dial gauge reading to 0.01mm for measuring expansion, Includes: Aluminum, brass and iron rods; thermometer not included, Manufacturer: Elenco PH0371B currently in stock	8	124.21
45	S12933 4.25IN MAGDEBURG HEMISPHERE currently on backorder Item Specification: The Elenco™ Plastic Magdeburg Hemisphere With Valve, 4.25 in. Diameter features a convenient valve for easy operation and release, 4.25 in. Diameter, Convenient valve for easy operation and release, Molded handles, O-ring Seal, Manufacturer: Elenco™ PH0171A	6	19.25
46	S95957 MAGNETS ALNICO PAIR 31N 2PK Item Specification: Alnico bars with keepers, bar magnet set, size L, Manufacturer: Elenco PH0789NX8 currently in stock	3	7.48
47	S96300 MANOMETER 5 PSI currently in stock Item Specification: Ideal for use in lab, field or factory, Measuring low differential pressure in 11 units of measures in clean rooms, test and balance, medical equipment, HVAC, pneumatic systems, computer peripherals, lab, field or factory, Includes Connection hose, instructions and 9V battery, in a hard shell carrying case, Manufacturer: Sper Scientific 840080	6	161.18
48	S79375 ENG/METRIC TAPE MEASURE 10/PK Item Specification: 60 in. long (150cm) plastic tape, Features inches on one side and centimeter/millimeter scale on the other, Set of 10, Manufacturer: Learning Resources, IncSupplier Diversity Partner LER 0363 currently in stock	9	6.83

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
49	S52067B MILLIKAN LATEX SPHERES 15MUBT Item Specification: Shows the discreteness of an electronic charge and measures the charge on an electron, Eliminates the traditional difficulty of applying Stokes' Law to discover the size of oil drops, Limits number of calculations required in experiment, Eliminates the use of radioactive sources, Vertical telescopic design and improved viewing, All manual controls and adjusting devices conveniently positioned, Factory assembled, Includes: 50X microscope; 15mL of specially designed latex spheres (instead of oil); focusing light source, parallel-plate chamber; potentiometer control for adjusting the voltage on the plates; atomizing system for the latex sphere solution that eliminates flooding; operating instructions, Manufacturer: Science FirstSupplier Diversity Partner 16110 currently on backorder	3	35.24
50	S42362 MIRROR CONCAVE 4 DIAM 10 FCL Item Specification: Rear-silvered for optical clarity, 4 inch diameter, optimum reflection, 10 inch focal length, double concave mirror, spherical, includes scratch proof copper back silvering, Manufacturer: United Scientific Supplies, Inc MCC110 currently in stock	6	2.73
51	S442081 FISHER DIGITAL MULTIMETER Item Specification: Checks batteries, cables, printed circuit boards and more. Displays answer by selecting proper range, 0.4 in. (1cm), four-digit LCD shows resistance or voltage unit, Audible beep checks continuity, Dimensions: 2.9 x 4.3 x 0.4 in. (5 x 11 x 1cm); weight: 3.0 oz. (85g), This multimeter checks a whole range of functions. Fisher Scientific Digital Auto-Range Multimeter measures electric current, voltage and resistance, typically over several ranges of value, Includes: Batteries, protective case, Traceable™ Certificate, pair of needle probes, pair of alligator probes and instructions currently in stock	8	41.60
52	S13648 OPTICAL BENCH STUDENT Item Specification: A simple and inexpensive apparatus to help demonstrate basic optics principles. The GSC Optical Bench provides an accurate demonstration of basic optics principles, Includes Instructions, Manufacturer: GSC 466000 currently on backorder	8	10.94
53	S83195 OSCILLOSCOPE ECON 20MHZ Item Specification: TA238A / 18-6 shoots 1/4 inch crown 18 gauge staples 1/2 inch to 1-1/2 inch, switchable fire mechanism, lightweight (2.7 lbs), Includes carry case, belt hook, and no mar tip, dial adjustable depth control, ANSI safety listing currently on backorder	8	410.00
54	S97562 ECONOMY BALLISTIC PENDULUM Item Specification: Leveling screws on base and nylon pendulum, Scale marked in degrees and registered by counterweighted needle that remains in place at the height of the arc, Adjustable, self-locking, spring-loaded gun, includes instructions, Manufacturer: 3B Scientific™ U40650 currently on backorder	3	82.55
55	S06982 PHOTOELECTRIC EFFECT APPARATUS Item Specification: Set of equipment for studying photo-emission of a mixed alkali photocathode, For studying Photo-emission of a mixed alkali photocathode, with illumination and bias control, Manufacturer: United Scientific Supplies PEEA01 currently on backorder	1	1500.00
56	S06903 Pearsonsifics Photogate Item Specification: Functions in four modes: gate (time of interruption), pulse (time between interruptions), pendulum (time between first and third interruption), frequency (frequency of interruptions), Functional stopwatch built in, Battery-operated with ability to charge, Includes: Rugged ABS case; contains two photogates, two connecting wires, main photogate hub and control and wall charger, Manufacturer: EISCO PTPGS currently on backorder	6	176.88

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
57	S65013 PITH BALLS ASST W/STR 6/PK Item Specification: pith ball with string, 1 x 1 cm; 6 per bag, assorted, Manufacturer: LAB CONNECTIONS 15036 currently in stock	8	3.76
58	S06983 PLANCK'S CONST Item Specification: A large, robust base with precise magnetic and threaded mounting locations helps students set up experiments easily and quickly with reproducible results. Large, magnetic base for sturdily attaching experiments, High-contrast color grid for easy data collection with video analysis systems, Each junction in the grid accepts threaded rods for accurate mounting, Dimensions: 25 x 16 x 2.5 in. (63.5 x 40.6 x 6.35cm), Accepts any probeware system, For use with S06894, S06895, S06896, S06897, S06898, S06899, S06900, S06901, S06902, S06903, Manufacturer: EISCO PTBASE currently in stock	1	1299.22
59	S90323 GLASS PRISM AND LENS SET currently on backorder Item Specification: prism and lens set, glass, includes Double convex lens, double concave lens, semicircular lens, trapezoidal prism, small right angle prism, equilateral prism, large right angle refraction prism, Manufacturer: United Scientific Supplies, Inc OPSETG2	8	58.50
60	S99358 PULLEY STUDENT DEMO SET EA Item Specification: A simpler version of the Eisco Pulley Set (PH0304). Set includes: Pulleys - (8) single, (2) double sheave, EISCO ball bearing frictionless pulleys, Wooden base 20 x 15 cm fitted with one vertical rod of size 61 cm x 12.5 mm and one horizontal rod size of 20 cm x 9.5 mm with clamp, Collars with hook - 6, Right angled clamp - 1, Wheel & axle - 1, Cord - 2 rolls, Tommy bar to tighten vertical rods - 1, Hooked Masses Brass, with hooks. 1 x 10g, 2 x 20g, 1 x 50g, 1 x 100g, 2 x 200g, 1 x 500g, 1 x 1000g - total 9 weights, Instructions, Manufacturer: Eisco™ PH0305 currently on backorder	8	168.31
61	S19485 RAD IOACTIVITY HALF LIFE EXPRA Item Specification: Conduct a series of activities to graph data using the concepts developed. Calculate the following: Amount of Carbon-14 found in an insect embedded in amber about 18,000 years ago, Amount of Carbon-14 present in charcoal burned 28,000 years ago, Age of pollen from the amount of Carbon-14 left, Class size: 30 students, Includes: 15 sets plastic simulated atoms (simulats), 15 shakers, 30 individualized worksheets and guides, teacher's instruction booklet, Manufacturer: Lab-Aids, Inc. 450 currently on backorder	3	78.93
62	S99344 RADIOMETER EA Item Specification: Glass bulb approx. 70mm dia., One side of each vane is blackened, the reverse side is bright, Mounted on round base, Radiometer comprises partly evacuated glass bulb containing a fine pivot at its centre, which supports 4 light weight metal arms, Manufacturer: EISCO PH0418A currently on backorder	3	7.56
63	S96833A MIXED RESISTANCE BOARD EA Item Specification: Students can calculate the resistivity of the higher resistance wires and compare them with theoretical values. By graphing the resistivity, they can see the linear nature of resistance in wires. Convenient scale is silk-screened onto the mounting board for easy measurements, Banana plugs on either end allow for easy connections, Includes: Mounting board with silk-screened scale; eight wires of the same gauge but of different materials: silver, aluminum, copper, nicrome, iron, stainless steel, constantan; and detailed instructions with graphs, Manufacturer: Science FirstSupplier Diversity Partner 10142 currently on backorder	8	61.76

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item Number	Item Description	Estimated Quantity	Unit Price
64	S05826 NEW RIPPLE TANK Item Specification: Full range of accessories included for wave investigations. Electronic strobe and control, Reinforced plastic frame with foam beaches to negate reflections. Included mirror can be mounted at 45° to project the ripples onto a translucent projection screen on one side of the unit. Intense illumination from light source is synchronized with the wave generator to create wave patterns that are easily seen on a lab table. Includes: Wave generator unit (vibrator), ripple tank, wave monitor unit, projection mirror, projection screen, footers with adjustment screws, wave dippers, perspex objects, lever arm and support, Manufacturer: EISCO PH0768 currently on backorder	1	250.90
65	S94559 SKY HAWKER RTF 24/PK Item Specification: For skill level RTF. Factory assembled by skilled craftsman, Can reach over 1000 ft. (305m) high, Smooth landing with a shiny 12 in. preassembled parachute, Bright red, white and blue coloring, Precolored parts, plastic fin unit and nose cone, parachute recovery, Length: 16.5 in. (41.9cm), Diameter: 0.98 in. (2.5cm), Max Altitude: 1000 ft. (305m), Recommended Engines: A8-3, B4-4, B6-4, C6-5, C6-7, Weight: 1.48 oz. (42.1g), Manufacturer: Estes Industries 1894 currently on backorder	1	290.70
66	S99384 NEWTON COLOR DISC EA Item Specification: Rotating multicolored disc demonstrates that white light is composed of all the spectral colors, Multicolored disc is mounted on a driving wheel secured to a metal stand, Hand crank drives the belt that rotates the color wheel, Disc dia.: 7.1 in. (180mm), Manufacturer: EISCO PH0582A currently in stock	1	18.53
67	S83158 SIMP/COMPLX MACHINES DELUX SET NC1336812 Item Specification: Build 60 fully functioning models selected from the five simple machines: levers, gears, pulleys, wheel/axles, inclined planes. Select from the five simple machines: levers, gears, pulleys, wheel/axles, inclined plan, Special Instructions provided to the 5 in. tall, Big Ball Factory . . . perfect for science fairs, Grades 3-9, Supports 40 or more students working simultaneously in teams of 3-4, Includes 3480 Pieces, Including one 12 volt motor, Five Educator Guides included, one per simple machine type, 57 extensive lesson plans, Manufacturer: K'Nex Education 79520 currently in stock	8	235.29
68	S02113 SOLAR CELL KIT USED W/NEULOG currently on backorder Item Specification: Uses different light sources (Incandescent/fluorescent/sunlight) and color filters to Investigate the amount of energy irradiated from a light source, as well as the sensitivity of the solar cell as a function of the color (frequency) of irradiation. Kit enables students to study: Photovoltaic cells, Light sources, Color sensitivity of photovoltaic cells, Includes: Solar cell, Three color filters, Flashlight, Instructions, Manufacturer: EISCO SLSES	8	17.67
69	S99345 VISION SPECTROSCOPE EA Item Specification: Spectroscope consists of a metal tube with draw-out focusing and an adjustable slit, Slit fitted with achromatic objective glass and three element prisms, Comes in a wooden case, Includes Metal tube with draw out focusing, adjustable slit at 1 end and an eyepiece mounted on a draw tube at the other end fitted with achromatic objective glass, 3 element prisms, Wooden case, Manufacturer: EISCO PH0594 currently in stock	3	43.44
70	S96205 SPECTRUM TUBE POWER SUPPLY Item Specification: Black panel behind the tube eliminates distracting ambient light and protects tube from breakage, Specially designed box holds tube firmly, preventing student from touching electrodes, Suitable for 10.25 in. (26cm) long spectrum tubes, Operates on 120VAC 60Hz ±10%, Manufacturer: Elscot™ ESRPH11978 currently on backorder	3	156.00

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
71	S07814 WAVE DEMONSTRATION Item Specification: Helps students understand various concepts like: effect of amplitude of pulse, length, tension and material of spring on speed of pulse, Includes 10+ page instruction booklet covering approximately two to three hours of class/lab time material, 10+ Next, Generation Science Standards Concepts and 10+ Common Core Standards, Every module includes comprehensive instructions to assist with lesson planning, student activities and experimental procedures, All labs and extensions feature recommended video analysis setups and guides, includes Thin and thick strings, oscillating motor, mountable pulley, instructions, student activities, experimental procedures, Manufacturer: EISCO PTWDA currently on backorder	1	26.58
72	S12978 TABLE TOP TESLA COIL Item Specification: Teaches about transformers, electromagnetism, resonating electrical circuits, electric Inductance, capacitance, and electrical power transmission, With adjustable spark gap, Dimensions (L x W x H): 20.3 x 15.2 x 38cm (8 x 6 x 15 in.), Weight: 1.9kg (4.3 lb.), Includes: Two antenna plates, small neon light bulb, mini discharge electrode and lamp socket, Manufacturer: EISCO PH0841 currently on backorder	1	206.70
73	S13024 2D TRAJECTORY APPARATUS Item Specification: Manufacturer: ElSCO STRJ currently on backorder	3	28.88
74	S96194 TUNING FORKS SET OF 8 Item Specification: Forks vibrate with these frequencies: 256, 288, 320, 341.3, 384, 426.6, 480 and 512Hz, Mallets made with one hard and one soft end, Cushioned for safe storage, Come in sturdy wooden case, Manufacturer: EISCO PH0738BN8 currently in stock	8	27.30
75	S05367 COTTON STRING ROLL 420 FT. Item Specification: Cotton, Medium weight, 420 ft, Consumable used as a science kit component that is compatible with multiple projects and kits. currently in stock	8	2.25
76	S90343 STAINLESS STEEL CALIPER Item Specification: Graduated in both English and metric, 140mm capacity, friction ruler, sliding lock, stainless steel, vernier caliper, Manufacturer: United Scientific Supplies, Inc VCB001	18	5.79
77	S05823 1.8M WAVE FORM HELIX currently in stock Item Specification: Steel wire, Close-wound helix with 20mm diameter, Closed length: 9.8 ft. (3m), Open length: 29.5 ft. (9m), Looped ends, Manufacturer: ElSCO™ PH0706	8	16.90
78	S43833 WHEATSTONE BRIDGE SLIDE WIRE Item Specification: An excellent introduction to the process of determining the value of an unknown resistance element, 1m-long resistance wire, stretched taut across a meter stick, Mounted on an anodized aluminum base, Binding posts are connected on each end, Knife-edged switch slides freely across meter stick for varying resistance of circuit, Aluminum bar with binding post runs across top of unit providing known, equal resistance, Includes Instruction manual, 1M Length resistance wire, Manufacturer: American Educational Products 72305 currently on backorder	3	65.00
79	15 540 2B WIRE CHROMEL-A 1/4LB SPOOL 20G Item Specification: 20% Chromium, 80% Nickel, 2150°F Temp, 20 gauge, Manufacturer: ARCOR ELECTRONIC COMPANY D 20 currently in stock	3	96.71

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item Number	Item Description	Estimated Quantity	Unit Price
80	15 540 2C WIRE CHROMEL A 1/4LB SPOOL 22G Item Specification: 20% Chromium, 80% Nickel, 2150°F Temp, 22 gauge, Manufacturer: ARCOR ELECTRONIC COMPANY D 22 currently on backorder	3	95.30
81	15 540 2A WIRE CHROMEL A 1/4LB SPOOL 18G Item Specification: 20% Chromium, 80% Nickel, 2150°F Temp, 18 gauge, Manufacturer: ARCOR ELECTRONIC COMPANY D 18 currently on backorder	3	95.12
82	19 860 501 2.5 LB BC FIRE EXTINGSHR Item Specification: 10 sec discharge time, 4.25 L x 5.25 W x 15.25 H (Inch), Model# B403T, regular dry chemical reagent, steel, 2.5lb capacity, includes wall bracket/vehicle, Manufacturer: Amerex Corporation Supplier Diversity Partner B403T currently on backorder	18	34.62
83	S07817 EISCO Goggle Sanitizer Cabinet Item Specification: Wall-mounted or bench top unit runs on 120VAC, Heavy gauge CRC steel treated with white enamel finish, Unit has doors and includes 15 minute timer with UV bulb, UV light operates only when doors are closed, Light leak avoided by tight fitting piano style hinges, Sterilization process is indicated by indicator light, Use to sanitize 35 pairs, Manufacturer: EISCO GGSN10 currently in stock	9	400.00
84	S93957 EYEWASH PH-NT+.5L-.9%SLN CV STN Item Specification: Suitable for high dust/dirt areas, mobile workplaces, garages, dry cleaners, 16 oz. and 6.76 oz. capacity, wall mount, covered double wash station, sterile, includes One 500mL bottle of saline and one 200mL bottle pH neutralizing solution, instructional pictogram, mirror and form fitting eye cups, Manufacturer: Bel-Art™ 248805003/EMD currently on backorder	9	56.55
85	S96538 Chemistry modeling kits Item Specification: 11 L x 7.4 W x 1.5 H in., includes 14 White Hydrogen, 6 black Carbon, 2 blue Nitrogen, 6 red Oxygen, 2 green Halogen, 28mm and 43mm Gray links, Manufacturer: EISCO SET00602 currently in stock	16	20.48
86	19-898-024 Moore Medical Corp EYE TEST CHART SNELLEN PLASTIC Item Specification: Measures 22" x 10.5", Read from 20 foot distance, Test range is 10/200 through 20/200, Chart features a non-reflective plastic matte finish with a grommited hole, Manufacturer #: 08502 currently on backorder	5	11.70
87	14-955-330 Fisherbrand™ Type 1 Class A Borosilicate Glass Clear Sample Vial with Fitted Caps case of 72 Item Specification: Supplied in partitioned trays, Also available: pre-cleaned EPA (Environmental Protection Agency) vials for VOA (volatile organic analysis), with or without certification, and fitted white polypropylene open top caps with PTFE faced silicone septa, 72 pack, Type 1 Class A Borosilicate Glass, Clear, Phenolic Fitted Closure, ASTM and USP Type I Certifications / Compliance, 20mL Capacity, Teflon faced rubber liner currently in stock	2	190.02
88	02-681-131 Fisherbrand™ Polypropylene Transport Tubes case of 1000 Item Specification: blue screw closure, 10mL volume, not sterile, Manufacturer: Fisherbrand™ 581GRDPS currently in stock	1	125.57

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
89	S47559B NOMEX FIRE BLANKET Item Specification: High-temperature-resistance blanket with the highest tear strength, Smothers clothing fires and other small fires, Provides a personal protective barrier against flames, hot gases, and hot chemical splashes, Nonmelting and acid-resistant, Dimensions: 60 x 80 in., Weighs 2 lb., Made of Nomex (DuPont™ aramid fiber), Includes red vinyl pouch with grommets for hanging, Manufacturer: Sellstrom ManufacturingSupplier Diversity Partner 97450/EMD currently on backorder	9	99.45
90	S98414C SOP STL NORTH BULK KIT Item Specification: ANSI Z308.1-2003, sufficient for 50 people, Includes metal, Manufacturer: Honeywell Safety Products 0197054505/EMD currently on backorder	9	70.20
91	S475611B RUBBERIZED APRONS-C HEMICAL RE Item Specification: 27 inch width, latex free, black, flexible and lightweight, Manufacturer: Walter Products AB2742 currently in stock	310	7.08
92	S47334 GLOVES BIOHAZARD AUTOCLAV E/PR Item Specification: gauntlet glove cuff, 5 inch cuff length, terrycloth, 232 degree C max temp, bright orange, CE certification, product is not waterproof, not used to handle dry ice, Manufacturer: Bel-Art™ H132010000/EMD currently in stock	9	22.75
93	23 057 377 SOLID WASTE DISP CONTNR 10/PK Item Specification: container, for solid waste, Manufacturer: Ortho-Clinical Diagnostics 6800355 currently on backorder	9	51.04
94	S41263 GLASS DISP BOX FLOOR MDL 6/CS Item Specification: 12 L x 12 W x 27 H (Inch), floor, polybag liner, 5 inch opening size, Separate broken and contaminated glassware from other waste currently in stock	9	29.90
95	S06533 AQUARIUM DEL. KIT Item Specification: Measures only 24 x 12 x 15 in. (61 x 30 x 38cm). Sleek design provides a large aquatic environment while helping to save valuable classroom space. Includes: Marina Slim S20 clip-on filter with quick change filter cartridges, a full-spectrum canopy with 18 in. Sun-Glo fluorescent bulb, Nutrafin Max fish food, Nutrafin AquaPlus and Nutrafin Cycle water purifiers, fish net, thermometer and care guide, Manufacturer: Aqua Phoenix ScientificSupplier Diversity Partner AQ5951G currently in stock	3	133.93
96	S07885 SANICLAVE-AUTOCLAVE 50 currently in stock Item Specification: Thermally protective polymer construction, Corrosion resistant, stainless steel chamber, Push-button operation, Comes with low water and under and over temperature alarms, Available with standard accessories including internal basket, seal and literature, Pressure: 15psi, Internal temperature: 121°C, Sterilization Cycle: 30 minutes, Power Requirements: 120VAC 60 Hz. 1250w, grounded cord, Load type: Solid, non-lumened, unwrapped non-medical instruments, Capacity: 8L, External Dimensions: 15D x 12.5W x 13 in. H, Internal Dimensions: 9 in. dia. x 8 in. H, Not approved by the FDA, Bacteria slides, liquid media, used Petri plates, two year warranty, Manufacturer: Revolutionary Science RSSC50	3	550.00
97	S06540 FISH DIP NET 5 currently in stock Item Specification: Constructed of durable nylon quick-mesh for fast, safe fish catching, Manufacturer: Aqua Phoenix ScientificSupplier Diversity Partner FN5005P	3	3.25

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
98	S63266 PYREX BEAKER 5/CS Item Specification: Convenient set provides the sizes you need without purchasing multiple packs, Set contains one each of 50, 100, 250, 600 and 1000mL, Manufacturer: Corning, Inc. 1000PACK/EMD currently in stock	90	23.31
99	S400563B PP BEAKER SET 1PK Item Specification: Classroom set of polypropylene beakers consists of one each: 50mL, 100mL, 250mL, 500mL, 1000mL, not graduated currently in stock	90	7.23
100	S12813 NATURAL GAS TIRRILL BURNER currently in stock Item Specification: Features wing nut on bottom of tube for gas adjustment and tube screws for fine adjustment of air to fuel ratio, natural gas, Manufacturer: EISCO CH0995NG	80	20.07
101	S09614 CANDLE 51N IN LG 72PK Item Specification: Paraffin candle, 5 inch length, 72 per pack, Manufacturer: EASTERN OIL CORPORATION PARAFFIN/EMD currently in stock	9	44.69
102	S50453 Rubber tubing currently on backorder Item Specification: 12 ft length, black natural rubber, 0.19 inch thickness,	80	11.73
103	S02609 TABLE CLAMP EACHTABLE CLAMP Item Specification: clamps to tabletop up to 65mm thick, rod not included, 5.9 inch length, Manufacturer: EISCO CH0688F/EMD currently on backorder	40	13.49
104	S67601B FS MINICENTRIFUGE 110/120 Item Specification: Features exclusive quick-release rotor for fast and easy changes, Internal safety switch ensures unit will not operate without lid in place, Removable cord for compact storage, Maximum speed: 6000rpm, Max RCF: 2000G, Includes: Two easy change, tool-free rotors: Six-place standard rotor for 1.5/2mL tubes, Eight-place strip rotor for two 0.2mL tube strips or 16 single tubes, Six 0.2mL and six 0.5mL adapters for customized use, Storage Case keeps rotors and adapters contained and dust-free, Tube Rack is convenient for handling samples before and after quick spins currently in stock	3	291.20
105	S31718 Micropitpettor Item Specification: blue, +/- 0.75% accuracy, 100 to 1000µL Manufacturer: Fischer Technical Company E100001 currently in stock	10	98.80
106	S43127 microcentrifuge tube rack Item Specification: Fisherbrand™ 20-Well Tube Racks have sturdy, easy-to-use connections on each side. User-friendly design makes it easy to identify and remove microtubes. Constructed of durable, autoclavable polypropylene. Interlock multiple racks to increase tube storage, Racks lock together on either side, Easily remove tubes using the "hold-it" finger slot on the front of the rack, Large molded coordinates for easy tube identification, BI-level rack enables easy tube label identification, Manufacturer: Fisherbrand™ HS4284A currently in stock	24	10.40

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
107	06 665 29 CHEESECLOTH WIPES 2X60/PK Item Specification: 100% brilliant white, pure cotton construction will not scratch sensitive surfaces. Have a high degree of cleanliness, softness, absorbency and strength. Can be used to safely clean microscope and camera optical parts, as well as delicate glassware, syringes, pipets, and pH electrodes. Absorb six times their weight in liquids and are useful for mopping up solvents and aqueous solutions. Inert to even harsh solvents; ideal as filtering material Grade 10 (mesh size). Each wipe is 18 x 36 in. (46 x 91cm). Sixty wipes per dispenser box (two boxes per pack). Box dimensions: 9 1/2L x 9 1/2W x 4 1/2 in.H (24 x 24 x 11cm). Meet USP and Federal Specification CCC-G-101c. Reagent-grade quality currently in stock	9	78.00
108	S50028 CORK ASST 12-26XX 100/ PK Item Specification: natural color, 12 to 16 size, cork stopper, assorted, Manufacturer: MANTON INDUSTRIAL CORK MAN 55103 currently on backorder	9	51.71
109	12 545 88 CVR GL FF SPRSLIP 24X50 10Z/PK Item Specification: rectangular shape, 24mm width, superslip cover slip, 0.13 to 0.17mm thickness currently in stock	3	23.56
110	02 617 133 PTFE CRUCIBLE 75ML currently on backorder Item Specification: 2.53 oz capacity, 1.89 inch height, withstand temperatures to 280°C (536°F)	20	26.46
111	13-374-16 Parafilm Item Specification: Waterproof, moisture-proof film prevents sample evaporation, contamination; protects anhydrous materials. Can be folded repeatedly and twisted around sharp surface without rupturing. Increases approximately 200% when stretched lengthwise at 21°C (70°F). Partially returns to original length when tension is removed. Becomes more flexible and softer as temperature increases. Rolls are interlined with paper to prevent adhering. Manufacturer: BEMIS COMPANY INC PM992 currently on backorder	3	43.55
112	AS4052 Plastic petri dishes 500/pk Item Specification: Made from virgin polystyrene, 60 x 15mm, Non-vented, Without stacking ring, 500/cs, sterile, no vent currently in stock	3	23.56
113	4850-16 Methylene Blue, 1% (w/v) Aqueous Solution 500mL Item Specification: plastic packaging, 500mL, methylene blue, 1% (w/v) Aqueous Solution, Manufacturer: Ricca Chemical Company Supplier Diversity Partner 485016 currently in stock	1	20.00
114	23-001-200 Hardy Diagnostics™ QuickSlide™ GramPRO 1 Automated Gram Stain Instrument Reagent Kit Item Specification: Convenient Reagent kit. Hardy Diagnostics™ QuickSlide™ GramPRO 1 Automated Gram Stain Instrument Reagent Kit includes Crystal Violet, Safranin, Acetone Alcohol, and Grams Iodine. Extended shelf life of two years (unopened). Special formulated pack - 110 tests/ Pk. In one self contained package, Easy to read labels on tubing for ease of operation. Keep container tightly closed. Store in a cool, dry place. Manufacturer: Hardy Diagnostics™ AGSSK2000 currently in stock	1	126.16
116	DF0001-15-2 BD™ Difco™ Dehydrated Culture Media: Nutrient Agar 100g Item Specification: For cultivation of bacteria and enumeration of organisms in water, sewage, feces and other materials, dehydrated, nutrient agar, <30°C storage requirements, package in bottle, 100g. Manufacturer: BD™ 212000 currently in stock	1	48.07

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
117	S17150H 3B Scientific™ Torso with Head, 12-Part Item Specification: Head shows skull and brain on one side, Lungs and heart show junctions to the major vessels, Front heart wall comes off to show inner chambers, Exhibits entire intestinal system including the liver with gallbladder, pancreas and removable two-part appendix flap, All parts numbered and correspond to supplied key card to aid in lesson preparation, Height: 34 in. (13.6cm), includes 3-parts head, 2 lungs, 2-parts heart, stomach, liver with gall bladder, 2-parts intestinal tract, front half of kidney, front half of urinary bladder, Manufacturer: 3B Scientific™ B09 currently in stock	3	400.00
118	S2564SH DIAL TUBING 28.6 INF 100/FTROLL Item Specification: 1.13 inch diameter, 100 foot length, dialysis tubing, seamless cellulose, contents: glycerin, water and 1% sulfur, Retains materials with 12,000 and higher molecular weight. currently on backorder	1	61.75
119	S01718 ECONOMY DISSECTION KIT currently in stock Item Specification: Economical dissection kit for beginners, Includes: Beginning instruments, teacher's guide, pan, pad and cover, Manufacturer: American Educational Products 9432	30	16.09
120	S12898 22.5X25 PLASTIC DISSECT TRAY currently in stock Item Specification: Washable, long lasting, easy to clean, Large enough for most small animal dissection, Has sturdy thick walls that prevent spills, Chemical resistant and heat resistant up to 77°C, Made of low density polyurethane (LDPE), Manufacturer: EISCO 810198B	30	4.62
121	S99385 2 NICKEL-PLATED T PINS 100PK currently in stock Item Specification: Nickel plated, 1.5 in., Manufacturer: EISCO PHTPINS	3	3.25
122	02 983B BTL DROP AMB GLASS 60ML 36/CS Item Specification: Ideal for light-sensitive chemicals, amber glass, polypropylene screw, closure currently in stock	3	78.03
123	S43015 CONVECTION OVEN 3.0CU FTCONVE Item Specification: Well-crafted, gravity-convection oven, 2 shelves, fiberglass, NEMA 5-15P plug, includes laboratory thermometer, cord with grounded plug, steel cabinet, 3 exhaust ports, 28 minute timer, Manufacturer: Quincy Lab Inc 40GC currently on backorder	3	577.78
124	S12928 Density cubes Item Specification: 14 Different Blocks, Kit contains 11 different materials, This kit is intended to familiarize students with appearance, feel, texture and density of these common materials, All measurements are approx. and may variable from kit to kit, Aluminum block 2 in. x 1.5 in. 1.125 in., Measurements: Aluminum Rectangle 3.875 in. x 0.75 in. x 0.75 in.; Brass Block 2 in. x 0.75 in. x 0.75 in.; Styrofoam block 2 in. x 1.5 in. 1.125 in.; Wax Block 2 in. x 1.5 in. 1.125 in.; Stainless Steel Block 2 in. x 2 in. x 0.75; Wood Block 2 in. x 1.5625 in. x 1.1875; Wood Rectangle; 3.875 in. x 0.75 in. x 0.75 in.; Marble Rectangle 3.875 in. x 0.75 in. x 0.75 in.; Glass Rectangle 3.875 in. x 0.75 in. x 0.75 in.; Acrylic Rectangle 3.875 in. x 0.75 in. x 0.75 in.; Steel Block 1.5 in. x 1.5 in. 0.75 in.; Steel Block 2 in. x 1.5 in. 1.125 in., Manufacturer: Elisco™ PH0114A currently in stock	16	53.59

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
125	S11510 ELECTROPHORESIS APPA. MDL6PLUS Runs one group of student samples (or a classroom demonstration) and separates up to six samples in 30 to 40 minutes. Seamless vacuum-formed base to prevent leakage and breakage, All-platinum electrodes, Safety interlock cover, Removable UV-transparent E-Z Align™ tray and rubber end caps, Tray includes molded embossing gel ruler and orientation arrow for the first sample, also includes One 7 x 10cm (2.7 x 3.9 in.) tray, One 6-tooth comb, One 8-/10-tooth comb, Two rubber end caps, Detailed guidelines for electrophoresis, Manufacturer: Edvotek 500 currently in stock	6	131.95
126	S05704 power supply currently on backorder Item Specification: Run experiments in the least time possible with this powerful, versatile unit. Easy-to-use, fully programmable interface for setting voltage, current or timer control with each parameter displayed in real time, Programs may be paused or resumed at any point, 10 to 300V for one to four units; maximum: 750mA, Manufacturer: Edvotek 5010	2	351.65
127	S47576C FILTER PAPER 9CM 100SH/PK Item Specification: Q8 grade, coarse, circle, 100 per pack currently on backorder	9	6.05
128	S04407 FLASK SET 1/PK Item Specification: Glass, Includes one each of 50, 125, 250, 500 and 1000mL, Manufacturer: Aqua Phoenix Scientific Supplier Diversity Partner GL55025ET currently in stock	90	22.46
129	13 812 42 FORCEP SPLINTER FINE 41/21N Item Specification: Can be sterilized by EtO/gamma radiation, Rockwell hardness: 40-45 HRC, Passivated, Fully autoclavable, Surgical-quality stainless steel, Straight, serrated tips, Patterned grip handles, Hand polished, Latex-free currently on backorder	5	24.05
130	S345088 STUDENT FUNNEL SET 5/PK Item Specification: polypropylene, Closed-end design, Unbreakable, Perforated funnel stem, Convenient assortment pack consists of five funnels, includes Set of five one each of 60mL, 120mL, 240mL capacity, two of 960mL capacity perforated stem funnel with closed end, Manufacturer: Kimble™ 6290S00000 currently on backorder	18	20.31
131	S01973 PLASTIC GRADUATED CYLINDER SET Item Specification: Shipping weight: 1.75 lb. (0.7kg), Dimensions: 15.5 x 10 x 4 in. (39.37 x 25.4 x 10.16cm), polypropylene cylinders include 10, 25, 50, 100, 250, 500, 1000mL cylinders, autoclavable, Manufacturer: United Scientific Supplies CPSET7 currently on backorder	90	18.02
132	10-462-833 glass graduated cylinder set currently in stock Item Specification: Includes one cylinder each of the following volumes: 10mL, 25mL, 50mL, 100mL, 250mL, Total of five cylinders per case, Manufacturer: Corning, Inc. 3024PACK	8	121.56
133	15-200 Tongs currently in stock Item Specification: HUMBOLDT MANUFACTURING COMPANY TONGS BEAKER 3 PRONG 9.25IN	30	14.30

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
134	S47441 Spill kit currently on backorder Item Specification: Universal Spill Kit, 2.5 gal capacity, includes One carton of super sorbent, six pillows, two pads, one pair each of goggles, nitrile gloves and latex boots, one disposal bag, universal instruction sheet, These products contain natural rubber latex, a component of which may cause allergic reaction in some users. Use only as directed and in accordance with manufacturer instructions and warnings. Please consult your institution's policies regarding use of these products. Sorbent and pillows not suitable for use with hydrofluoric acid	9	53.66
135	S93920 DUAL HAND LENS Item Specification: 3x and 5x magnifiers, 0.75 and 1.5 in. diameter lens, Manufacturer: Si Metric Manufacturing Limited 14434 currently in stock	54	.72
136	S50462CH HOTPLATE ANALOG 4X4 120V currently in stock Item Specification: ceramic, Heat from 150° to 590°C (302° to 1094°F); reach maximum temperature in minutes, CSA Certification, includes support rod mount and PTFE coated stir bar, 100 to 1200 RPM, 120V, hot top Indicator light alerts when top plate is too hot to touch	20	140.73
137	S50467CNSH HOTPLATE STIRRER currently in stock Item Specification: analog, ceramic, Heat from 150° to 590°C (302° to 1094°F); reach maximum temperature in minutes, CSA Certification, includes support rod mount and PTFE coated stir bar, 100 to 1200 RPM, 120V, hot top Indicator light alerts when top plate is too hot to touch, Variable analog speed control from 100 to 1200rpm, stir up to 0.52 gal. water	3	306.62
138	14 513 51SIX PACK OF 6 Item Specification: 3x and 5x magnifiers, 0.75 and 1.5 in. diameter lens, Manufacturer: Si Metric Manufacturing Limited 14434 currently in stock	1	6.83
139	14 513 70 STIR BAR RETRIEVERS Item Specification: 0.37 inch diameter, 18inch length, polyethylene, Includes alnico-V magnet at one end and hanging loop at other currently in stock	3	12.68
140	S171562 FLEXIBLE HUMAN SKELETON Item Specification: Made from unbreakable plastic material for classroom durability, Deluxe skull is dissectible into three parts: calvarium, base of skull and lower jaw, Position and spacing of teeth are reproduced from a natural denture, Upper and lower extremities are flexibly mounted and removable, Flexible spine allows almost all natural movements and features a hemiated disc, protruding nerves and vertebral artery, Rotation and movement of the skull on first and second cervical vertebrae can be demonstrated as well, Height: 70 in. (177.8cm), includes roller stand and dust cover, Manufacturer: 3B Scientific™ A15 currently on backorder	3	457.78

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
141	S28669 ISOTEMP 60L INCBTR FA120V Item Specification: Outstanding temperature uniformity and stability to keep samples at desired condition Wide temperature range: ambient +5°/10° to 75°C Intuitive and easy-to-use microprocessor controller Automatic over temperature alarm—no operator settings required Low air exchange provides minimal drying out of samples—Ideal for long experiments On/off timer Corrosion resistant stainless steel interior with smooth corners for easy cleaning† Easy-to-clean rounded interior edges, designed to reduce contamination risks Flexible shelving with no tools required to set up, adjust or remove. Small external dimensions per chamber size reduce required bench space, Construction features stainless-steel exterior provides a clean professional look with surface that avoids fingerprint smudges, readily stackable same-size units without the need for tools or kits, access port with silicone plug for independent data logging or for using small equipment inside the unit, flexible shelving system with different positions to optimize chamber space, large easy-to-view fluorescent display with intuitive microprocessor controller, internal glass door for undisturbed sample viewing Certifications: cCSAus certified, Gravity convection models AISI 430 / 1.4016 and mechanical convection (forced air) models AISI 304 / 1.4301, Depth of handle / display not included in depth (65mm / 2.6 in.); adjustable feet not included in height (35mm / 1.4 in.)—required distance to rear wall: 80mm / 3.1 in., 2 year parts and labor currently in stock	3	1,555.17
142	13 451 185 FB DEEP CART 2SHELF BLUE currently in stock Item Specification: utility cart, 38.75 x 27 x 41 in. (85.7 x 68.6 x 104cm), 150 to 400 lb. load bearing capacity, 2 shelves, includes 2 polymer shelves, 4 inch dia swivel casters	9	178.20
143	11 997 LENS PAPER 5X7 2000S/PK currently in stock Item Specification: lense paper dispenser for cleaning glass lenses, Fisherbrand	9	49.40
144	S40625 METER STICK PLAIN ENDS PINE currently in stock Item Specification: Front is ruled in metric units with millimeter increments on both edges, Back is ruled in inches with 0.125 in. increments, Made of pine with a multiple-coat clear lacquer finish for increased durability, Dimensions: 1W x 0.25 in. thick (2.54 x 0.63cm), calibration: Metric units with millimeter increments on both edges in front and inches with 0.125 in. increments in back, clear color, Manufacturer: Acme United Corporation 10431	90	2.87
145	S19617H Swift Optical M3602C4 Item Specification: Axis Type - Coarse and fine, Diaphragm - Iris, Eyepiece - 10X, 18mm widefield, Grade - High school and other, Head - Style Monocular currently on backorder	32	334.54
146	FB961B MORTAR ONLY 65ML 80MM OD currently in stock Item Specification: mortar 65ML glazed outside, porcelain, 2.04 inch, 2.19 oz capacity	16	16.90
147	FB961M PESTLE FOR FB961C Item Specification: autoclavable, porcelain, unglazed on grinding surface, pestle, 150mL Mortar, 6.2 inch currently in stock	16	21.5
148	15 000 504 RUBBER BULB BLACK 1ML 12/PK Item Specification: non-autoclavable, black bulb pipets, 1mL currently in stock	1	14.51

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
149	12 567 602 PIPET 5ML STR IND PAPER PK Item Specification: Select size and packaging options to advance your research with complete confidence when using Thermo Scientific™ Nunc™ Serological Pipettes. These accurate, disposable plastic pipettes are plugged and sterilized. Sterility assurance level (SAL) of 10-6, 100% virgin polystyrene for maximum clarity, Certified non-pyrogenic, Bold clear graduations with easy-to-read scale markings, Non-dripping tip for pipette precision, Color-coded packaging for ease in sorting and selecting the correct size, Packaging options that accommodate every lab, Individually wrapped; paper/plastic or plastic film; peel or pop through for easy opening, Bulk packed for frequent use; reduces packaging waste, Multiple sizes for use in a wide range of applications, Supplied sterile, individually packaged in easy-open paper/plastic wrapper, Serological Pipette, 5mL, Individually wrapped, paper peel packaging, plugged, 50/bag, 200/case, Individually wrapped, paper peel packaging, plugged, Manufacturer: Thermo Scientific™ 170355 currently in stock	1	46.37
150	12 567 603 PIPET 10ML STR IND PAPER PK Item Specification: Select size and packaging options to advance your research with complete confidence when using Thermo Scientific™ Nunc™ Serological Pipettes. These accurate, disposable plastic pipettes are plugged and sterilized, Sterility assurance level (SAL) of 10-6, 100% virgin polystyrene for maximum clarity, Certified non-pyrogenic, Bold clear graduations with easy-to-read scale markings, Non-dripping tip for pipette precision, Color-coded packaging for ease in sorting and selecting the correct size, Packaging options that accommodate every lab, Individually wrapped; paper/plastic or plastic film; peel or pop through for easy opening, Bulk packed for frequent use; reduces packaging waste, Multiple sizes for use in a wide range of applications, Supplied sterile, individually packaged in easy-open paper/plastic wrapper, Manufacturer: Thermo Scientific™ 170356 currently in stock	1	53.46
151	S13749 SUPPORTS STAND WITH 2 RINGS currently on backorder Item Specification: Stand made from cast iron, Acid resistant, Plated steel support rod, Rod threaded to fit base, Includes support rings, Manufacturer: GSC 45SC14R2	80	16.11
152	S95938C Scalpel blades no. 22 10pk currently in stock Item Specification: 14.96 Inch length, scalpel blade, 22 size, Manufacturer: EISCO BI0184B22	5	3.32
153	S07898 scalpel - safety lock/ Case of 50 Item Specification: Chrome plated steel made scalpel with screw lock for blade Comes with one blade, No. 22, Manufacturer: DR INSTRUMENTS INC 21 currently in stock	1	114.74
154	S07895 Teasing needle bent-wood 12/pk currently in stock Item Specification: wooden handle, Manufacturer: DR INSTRUMENTS INC 32W	3	2.06
155	S07894 Teasing Needle straight-wood 12/pk currently in stock Item Specification: wooden handle, Manufacturer: DR INSTRUMENTS INC 31W	3	2.02
156	S17314 DISSECT SCISSORS STRAIGHT 10CM Item Specification: Sharp points on finely finished, narrow blades make these chrome-plated steel scissors perfect for dissecting work. Length: 10cm, Manufacturer: Medco Instruments 16MDCH currently in stock	9	2.37

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
157	S53020A STUDENT SCREEN SIEVES Item Description: Load samples into top sieve, cover and shake vigorously Set of four sieves separates the sample based on particle size, includes four 4 in. dia. (10.2cm) containers with No. 6, 20, 40 and 100 wire mesh screens, Container lid, and Solid bottom container, Manufacturer: Science FirstSupplier Diversity Partner 32910 currently in stock	8	32.50
158	S02602 SPATULA SCOOP 16CM PKG/6SPA Item Specification: Versatile stainless steel spatula for use in the lab or kitchen, Semicircular cross section, One end is rounded and the other is pointed, Length: 16.51cm (6.5 in.), Manufacturer: EISCO CH0635A currently in stock	20	9.91
159	S20680 ANEROID SPHYGMOMANOMETER Item Specification: Lightweight housing and bezel are constructed of high Impact absorbing thermoplastic, Ergonomically-designed palm brace and bulb stabilize manometer and support hand during inflation and air release, Unsurpassed measurement, convenience and accuracy even in harsh field settings, Abrasion, chemical, and moisture resistant, adult Velcro™ cuff is constructed of high-molecular polymer nylon, Cuff is sized to meet American Heart Association recommendations, Artery Indicator label and index range ensure proper cuffing for correct arterial compression, Single tube seamless inflation bag constructed of crack-resistant, non-sticking, high-density hypoallergenic latex-free PVC, Universal bladder tube enables compatible cuff exchange with all MDF and other major brands of BP systems, Chrome plated brass screw-type valve facilitates precise air release rate, Size: Adult, Color: Navy Blue, Warranty: Three years and lifetime calibration, Includes: Nylon zippered carrying case with Velcro side pocket, ID tag, Manufacturer: 3B Scientific™ W7B171 currently in stock	8	118.85
160	08-772-51 24 well plates Item Specification: Choose tissue culture-treated or nontreated surfaces, Nontreated growth surface is more hydrophobic than tissue culture surface and is similar to the surface of a bacteriological Petri dish, Sterilized by gamma irradiation, Lid design permits stable stacking on benchtop or in incubator, All plates (except 08-772-2A and 08-772-16) have patented "labyrinth" lid that reduces evaporation of media from wells, minimizes the risk of contamination, Deep skirt and serrated edge permit a firmer grip for plate manipulation, Exceptional optical clarity allows for visualization of all cell monolayers, Frosted writing ends provide clear writing area for quick identification, All plates and lids are suitable for both manual and automated handling, Manufacturer: Corning, Inc. 351147 currently in stock	1	130.45
161	S63448 GLASS STIRRING ROD 150MM 72/PK Item Specification: Constructed of glass, A stirring rod is used to mix chemicals and liquids for laboratory purposes, rounded and fire polished ends, 0.19 in diameter, 5.9 in length, 72 per pack currently in stock	3	18.85

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
162	S95019L Histology slides currently on backorder Item Specification: human histology, 50 microscope slides: 1(c). Isolated squamous epithelium, human, 2(e). Connective tissue, human, sec., 3(e). Columnar epithelium, human gall bladder, t.s., 4(e). Ciliated epithelium, human trachea, t.s., 5(e). Smooth muscles, human, l.s. and t.s., 6(e). Striated muscles, human, l.s., 7(e). Heart muscles, human, l.s. and t.s., 8(e). Hyaline cartilage, human, sec., 9(e). Elastic cartilage of epiglottis, human, t.s., 10(e). Bone, compact substance, human, t.s., 11(e). White fibrous tissue (tendon), human, l.s., 12(e). Red bone marrow, human, t.s., 13(d). Scalp, human, l.s. of hair follicles, 14(e). Artery, human, t.s., 15(e). Vein, human, t.s., 16(c). Blood smear, human, Giemsa stain, 17(e). Lung, human, t.s., 18(f). Larynx of human foetus, t.s., 19(e). Lymph gland, human, t.s., 20(e). Thyroid gland, human, t.s., 21(f). Pituitary gland, human, t.s., 22(e). Spleen, human, t.s., 23(e). Tongue, human, t.s., 24(e). Oesophagus, human, t.s., 25(e). Sublingual gland, human, t.s., 26(e). Stomach, pyloric region, human, t.s., 27(e). Pancreas, human, t.s., 28(e). Small intestine, human, t.s., 29(e). Large intestine, human, t.s., 30(e). Liver, human, t.s., 31(e). Kidney, human, t.s., 32(f). Adrenal gland, human, t.s., 33(e). Ureter, human, t.s., 34(e). Urinary bladder, human, t.s., 35(f). Ovary, human, t.s., 36(e). Uterus, human, t.s., 37(e). Uterine tube, human, t.s., 38(e). Placenta, human, t.s., 39(e). Umbilical cord, human, t.s., 40(e). Mammary gland, human, sec., 41(f). Testis, human, t.s., 42(e). Epididymis, human, t.s., 43(f). Olfactory epithelium, human, t.s., 44(f). Retina, human, t.s., 45(g). Internal ear, human foetal, t.s., 46(f). Touch corpuscles in human skin, t.s., 47(e). Nerve, human, l.s., 48(e). Spinal cord, human, t.s., 49(e). Cerebellum, human, t.s., 50(e). Cerebrum, cortex, human, t.s., Manufacturer: 3B Scientific W13409	1	678.60
163	S96419 Prepared General Biology Slides Item Specification: Set of 25 general biology slides comes with a case for easy storage and retrieval. Includes Amoeba proteus, wm, Hydra, wm, Earthworm, cs of posterior, Daphnia and cyclops, wm, Housefly head with mouthparts, wm, Housefly leg with clinging pads, Mouth smear, squamous epithelium, Striated muscle, ls, Human blood smear, Bacteria, smear from mouth, Diatoms, mixed, wm, Spirogyra, vegetative filaments, wm, Aspergillus, wm, Moss stem with leaves, wm, Buttercup root, cs, Corn stem, cs, Lily anthers, cs, Lily ovary, cs, Onion epidermis, wm, Onion root tip, ls, mitosis, Human scalp, vertical sections, Compact bone, cs, Sunflower stem, cs, Lilac leaf, cs, Honeybee anterior and posterior wing, Manufacturer: United Scientific Supplies, Inc SLD500SET/25 currently in stock	2	43.71
164	S25593 SUDAN 111 10G currently in stock Item Specification: CAS 85-86-9, Molecular Formula C22H16N4O, Formula Weight 352.4, Chemical Name or Material Sudan III, Assay Percent Range >99%, Linear Formula C22H16N4O, Synonym 2-Naphthalenol, Packaging Solid, Quantity 10g, Color Dark red to brown	1	6.50
165	S23682 STETHOSCOPE - SUPERIOR Item Specification: High grade, stainless steel stethoscope for adults. Includes spare ear tips and diaphragm for comfort, Comfortable ear tips with alternate sized extra pair, micro plus stethoscope, Manufacturer: EISCO PH0753A currently on backorder	8	10.80
166	14-765 SUPPORT FOR TWELVE TUBES Item Specification: Autoclavable No, Dimensions (L x W x H) 7.87 x 2.75 x 5.875 in. (20 x 7 x 15cm), Height (Metric) 15cm, Length (English) 7.87 in., Material Wood, Product Type Rack, Tube, Width (Metric) 7cm, Diameter (Metric) Cavity 22mm, Height (English) 5.875 in., Holds 22mm Tubes, Length (Metric) 20cm, Positions 12.0, Width (English) 2.75 in. currently on backorder	72	9.77

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
167	23-400-123 Wooden splints currently in stock Item Specification: thin wood, Measures 4.5L x 0.37W x 0.083 in. thick (114.3 x 9.5 x 2.1mm).	3	23.40
168	S23648 TEST TUBE HOLDER WIRE Item Specification: Plated spring steel wire holder with finger grip. The jaws will accept tubes up to 40mm diameter and their alignment maintained by a wire collar. Plated spring steel wire with finger grip, Overall length 16cm, Jaws accept tubes up to 40mm diameter, Alignment maintained by wire collar, Manufacturer: Elisco™ CH0730 currently in stock	80	.90
169	S01618 20 HOUR MEMORY TIMER Item Specification: Memory count down setting, Foldaway stand, Magnetic attachment, Maximum count down/up range: Cat. No. 7894: 99 min. 59 sec., Cat. No. 7895: 19 hr. 59 min., Display size: 26 x 12mm, Product size: 63 x 48 x 12mm, Battery: 1.5V, size A76 or equivalent x 1 pc, loud buzzer sound, digital, Includes foldaway stand, magnetic attachment, 1.5V A76 battery currently in stock	10	11.70
170	S05120 WSHBTLE DISTILLWATER GHS 500ML currently on backorder Item Specification: Bel-Art™ SP Scienceware™ Right-to-Know Safety-Vented™ Wash Bottles with GHS Labeling Products for Science Education, Specially designed valve prevents pressure build-up, which eliminates potentially dangerous chemical drips; allows dispensing of wash bottle in upright or inverted position, 4 pack, Manufacturer: Bel-Art™ F124160004/EMD	80	27.69
171	S28124 ISOTEMP 5L GP BATH Item Specification: Ideal for industrial, clinical pharmaceutical or biomedical applications, Fisher Scientific™ Isotemp™ general purpose deluxe water baths provide powerful technology in a compact design. Available in a variety of sizes to meet a wide range of application requirements, the Isotemp water baths are designed to provide consistent temperature for reliable results with easy-to-use operation. Smaller footprint, compared to previous models, Advanced temperature controller is designed for extended functionality, New audible alarms, Conveniently save commonly used settings with temperature presets, Simple to operate and monitor with icon-based graphical display, Enhanced hinge design supports open lid configuration and easy lid removal, Help prevent bath damage and overheating with low-fluid protection, Ambient to 100°C, Stainless steel, 3 temp presets, 5L Deluxe General Purpose Water Bath, 300W Heating Capacity, UL / CE Certifications/Compliance currently on backorder	2	543.88
172	S17429 INSTRUMENT SORTING TRAY currently on backorder Item Specification: This handy five-compartment tray accommodates your instruments according to size and type for easy sorting In addition, open-face design lets instruments quickly air-dry after cleaning, eliminating mold growth, dissecting instrument tray, white, Manufacturer: Nasco SB17102DIM	18	13.81
173	S95949 GAUGE WIRE IRON 15 CMS 10/PK Item Specification: Elisco Iron Wire Gauze with Ceramic Center is high quality and extra strong for long-term use in the classroom laboratory. Squares of extra-strong quality Pack of 10, Manufacturer: Elisco™ CH0525B currently in stock	3	19.99

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
174	S67919MPA1 Ken-A- Vision. Inc. 910171200 Item Specification: Angle 64.5°, Certifications/Compliance CE, FCC, RoHS, For Use With (Equipment) Stand mounted camera, Compatibility (Operating System) Windows™, Mac™, Linux™, Field of View 11 x 17/A3, Includes Microscope eyepiece adapter, Operating Temperature (English) 32 to 122°F, Pixels 5, Weight (Metric) 2.04kg, Axis Type Auto, Product Type Stand mounted camera, Color Black and White, Display Type LED, Length (English) 0.39 in., Length (Metric) 10mm, Operating Temperature (Metric) 0 to 50°C, Resolution HD 1080P Weight (English) 4.5 lb., Manufacturer: Ken-A-Vision, Inc. 910171200 currently on backorder	3	297.21
175	S04727 Ken-A- Vision. Inc. Microscope adapter tor digital high definition c Item Specification: Certifications/Compliance CE, FCC, RoHS, For Use With (Equipment) Microscope adapter for digital high definition camera, Includes Microscope eyepiece adapter, Product Type FlexCam, Head Style 28mm Eyepiece, Manufacturer: Ken-A-Vision, Inc. 910171230 currently on backorder	3	36.61
176	S13610 BOTTLES BRUSHES 1000ML/10 pk Item Specification: Available for a variety of flask volumes, Plastic handle is shaped with a curve to reach into flask curves, Natural bristles for effective cleaning without damaging surfaces, natural bristles, 140mm bristle length, 40mm bristle diameter, Manufacturer: GSC International 41043010 currently in stock	9	2.28
177	S13608 BOTTLES BRUSHES 250ML/10 pk Item Specification: Available for a variety of flask volumes, Plastic handle is shaped with a curve to reach into flask curves, Natural bristles for effective cleaning without damaging surfaces, natural bristles, 110mm bristle length, 30mm bristle diameter, Manufacturer: GSC International 41041010 currently in stock	9	16.90
178	S13609 BOTTLES BRUSHES 500ML/10 pk Item Specification: Available for a variety of flask volumes, Plastic handle is shaped with a curve to reach into flask curves, Natural bristles for effective cleaning without damaging surfaces, natural bristles, 90mm bristle length, 40mm bristle diameter, Manufacturer: GSC International 41042010 currently in stock	9	19.50
179	03640 BRUSH BABCOCK CREAMBOTTLE/ 12 pk currently on backorder Item Specification: Bristle portion on tip, 1.75 dia. x 2 in.L (4.4 x 5cm), Upper portion, 0.5 dia. x 3 in.L (1.3 x 7.6cm), Fan-style tip for cleaning Babcock bottle, includes metal ferrule	9	21.16
180	03-574 Fisherbrand™ Budget-Priced Brushes med pk of 12 Item Specification: Diameter (English) Bristle 0.75 in., Diameter (Metric) Bristle 1.9cm, Length (English) 9.5 in., For Use With (Equipment) Test tubes, Handle Material Galvanized Wire, Material Hog Hair, Color White, Length (Metric) 24.13cm, Product Type Test Tube Brush, Length (English) Bristle 3.5 in., Length (Metric) Bristle 8.89cm, Size Medium, Economical brushes for test tubes currently in stock	9	10.99
181	03-576 Fisherbrand™ Budget-Priced Brushes small pk of 12 Item Specification: Diameter (English) Bristle 0.43 in., Diameter (Metric) Bristle 1.1cm, Length (English) 9 in., For Use With (Equipment) Test tubes, Handle Material Galvanized Wire, Material Hog Hair, Color White, Length (Metric) 23cm, Product Type Test Tube Brush, Length (English) Bristle 3 in., Length (Metric) Bristle 7.62cm, Size Small, Economical brushes for test tubes currently in stock	9	9.85

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
182	03700C BURET STRAIGHT 50ML/ 12 pk Item Specification: Capacity (English) 1.69 oz., Includes Straight stopcock, blue markings, Tolerance (Metric) ± 0.1 mL, Capacity 1.69 oz., 50mL, Subdivision 0.1mL, For Use With (Application) For both educational and routine laboratory work, Stopcock Material Glass, Capacity (Metric) 50mL, Product Type Manual Buret, With blue markings currently on backorder	2	296.59
183	05779Q BURETTE HOLDER DOUBLE Item Specification: Simply compress scissor-like mechanism, Insert buret, and release. Numbers and graduations on burets are easy to read, For height adjustments, just recompress mechanism, slide buret up or down, release Clamp unit attaches to standard support rod with convenient hook clamp, Wingnut for tightening on front for easy access, Holds two burets from micro to 100mL size currently in stock	12	24.09
184	S90532C CLEAR 12 RULER CLEAR 12 Item Specification: 12-Inch clear rulers, Made of shatter-resistant material., Manufacturer: Si Metric Manufacturing Limited 11755 currently on backorder	310	.55
185	S17898 UTILITY SHEARS Item Specification: Fabricated from extremely hard stainless steel, scissors can cut through bones, tendons or any laboratory material, Lever blade has a footplate to facilitate cutting between skin and bandages, Length: 7.5 in. (18.8cm), Manufacturer: Surgical DesignSupplier Diversity Partner 14108/EMD currently in stock	16	6.83
186	08-732-103 weighing dishes Item Specification: Choose Fisherbrand™ Aluminum Weight Dishes with either smooth or fluted sides for weighing and dispensing. With Fluted sides, Also can serve as evaporating dishes or dust covers Lightweight, yet sturdy Convenient finger-grip handle can be etched prior to weighing for identification, With Smooth sides, Lightweight dishes with flanged rims Slightly sloping sides facilitate stacking, Especially useful for materials that cannot easily be cleaned from dish surface, 2.30z Capacity currently in stock	3	7.94
187	S07899 Periodic Table Item Specification: Printed on 10mL Indoor/outdoor poster stock material, Corner grommets for easy display, Large 48 x 84 in. display, Manufacturer: Aqua Phoenix ScientificSupplier Diversity Partner S07899 currently in stock	9	126.47
188	S1790612 DNA DOUBLE HELIX MODEL Item Specification: Preassembled, RNA cord is attached to one end to show the basis of RNA transcription, Demonstrates three coils of a DNA double helix with base pairing, Includes: Stand and base, Manufacturer: 3B Scientific™ W19205 currently on bakcorder	3	168.76
189	S68294 ELECTRON REPULSION THRY MDLS Item Specification: Different shapes are examples of bond orientations and cover coordination numbers one through six, Lone pairs are represented by brown spheres or brown pear-shaped parts, Two extra pear-shaped parts are included to enable protonated models to be made, such as the formation of H3O as a result of the migration of H+ from Hydrogen Chloride, includes 13 Hydrogen (white), 7 Chlorine (green), 9 Fluorine (light green), Metal (Beryllium) (grey), Boron (beige), Chlorine (light green), Oxygen (red), Nitrogen (blue), Carbon (black), Phosphorus (purple), Sulphur (yellow), 26 Sigma bonds (grey), 6 Lone pair orbital (beige), 6 Protonated lone pair orbital (beige), 6 Short Link (white), Manufacturer: 3B Scientific™ W19758 currently in stock	3	29.48

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
190	S98420 FB QUALFIER BLK/FR CL/LN 12/PK/priced as case of 10 pk Item Specification: scratch-resistant polycarbonate lens, clear tint, nylon black frame, Fisherbrand Racer Series currently on backorder	3	299.42
191	S750 GEN BIO SET D 50 SLIDES currently on backorder Item Specification: Set D offers prepared slides of animal and plant structures in whole mount (w.m.), longitudinal section (l.s.) and cross-section (c.s.) preparations. Also available in CD-ROM format (see S750CD, below), Manufacturer: Johannes Lieder GmbH & Co. KG 750	1	243.01
Histology of Humans and Mammals Ciliated epithelium, t.s., fallopian tube of pig Tendon, l.s., white fibrous tissue, fibers/cells Heart muscle, t.s. and l.s., human, branched fibers with central nuclei and intercalated discs Lymph gland, c.s., pig, lymphoid tissue Esophagus, c.s., cat, stratified squamous epithelium Stomach, c.s., cat, fundic with gastric glands Large intestine, c.s., stained for mucous cells Pancreas, pig, showing islets of Langerhans Thyroid gland, t.s., pig, glandular epithelium and colloid Adrenal gland, t.s., cat, through cortex and medulla Sperm, smear, bull spermatozoa Motor Nerve Cells, smear, spinal cord of cow Cerebrum, t.s., human, cortex with pyramidal cells Skin, human, palm, cornified epidermis, sweat glands Zoology Fasciola hepatica, w.m., beef liver fluke Taenia, w.m., tapeworm mature proglottids Culex pipiens, w.m. (F), mosquito head and mouth parts Culex pipiens, w.m., male head and mouth parts Cimex lectularis, w.m., bed bug, adult Cytology and Genetics Mitochondria, thin section, liver or kidney Golgi apparatus, t.s., through spinal ganglion Chloroplasts, in leaf Elodea or Mniurn Aleurone grains, sec. of Ricinus endosperm Storage, c.s., liver or kidney vital stained with trypan-blue for storage in epithelial cells DNA in cell nuclei, Feulgen stained DNA and RNA, fixed and stained with methyl green to show DNA and RNA in different colors Giant chromosomes, from Chironomus salivary gland, individual genes and puffs can be seen Human chromosomes, spread in metaphase for counting Meiotic and mitotic stages, c.s., crayfish testis, with nuclear spindles Maturation divisions, in ova of Ascaris megalocephala, iron-hematoxylin stained Cleavage stages, in ova of Ascaris meg., iron-hematoxylin stained Bacteria and Diseased Human Organs Escherichia coli, bacteria from colon, Gram stained Eberthella typhi, typhoid fever, Gram stained, smear Tuberculosis, c.s., lung with tubercles in tissue Smoker's lung, c.s., human smoker's lung Liver cirrhosis, c.s., man, alcohol abuse Arteriosclerosis, c.s., human coronary artery with sclerotic wall Metastatic carcinoma (cancer), human liver			

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
	Embryology Sea urchin development, 2/4/8 cell stages Sea urchin development, morula, blastula, and gastrula Frog embryology, c.s., through blastula/blastocoel Frog embryology, c.s., larva, through organs Ecology and the Environment Leaf, needle of fir, two types, healthy and acid-rain damaged Leaf of beech, c.s., two types, healthy and acid-rain damaged Bacteria from wastewater, smear Botany Nostoc, filamentous colonies in gelatinous sheaths Desmids, strewn, mixed species Sphagnum, w.m., peat moss, leaf showing chlorophyll-bearing hyaline cells Triticum, c.s., wheat stem with central pith and circular arrangement of bundles Salvia, c.s., sage square stem, angular collenchyma		
192	S34820 90MM WATCH GLASS 12/PK/ priced as case of 12 pk Item Specification: 3.54 in diameter, non-disposable, pyrex, plain finish, Manufacturer: Corning, Inc. 998590/EMD, case of 12 packs currently in stock	1	323.36
193	S13743 CLAMPS BURET STEEL COATED JAWS currently in stock Item Specification: A clamp specifically designed to use with burettes. The GSC Burette Clamp Single with Jaws is a cast-aluminum clamp with nickel-plated steel thumb-screw, Cast aluminum clamp, Nickel-plated steel thumb screw, Jaw range of 3/8 in. to 1-3/8 in	50	3.64
194	15-280B TRIANGLE IRON 2IN 12/PK Item Specification: For Use With (Equipment) Heating crucibles, Includes Plain clay stem, Length (Metric) 5.1cm, Product Type Triangle, Gauge 16g, Length (English) 2 In., Material Iron Wire currently in stock	3	10.73
195	19-414-811 Justrite™ Chemcor™ Lined Safety Cabinets for Hazardous Materials Item Specification: Capacity (Metric) 170L, For Use With (Application) For hazardous materials, No. of Shelves 2, Color Blue, No. of Doors 2 self-closing doors, Type Lined Safety Cabinet, Manufacturer: Justrite™ 8645282 currently on backorder	1	1,549.53
196	19-160-377 Flammables Cabinet FM, NFPA, OSHA Item Specification: Dimensions (D x W x H) Interior 14.56 x 20 x 60.5 in. (37 x 50.8 x 153.7cm), Height (Metric) Interior 153.7cm, Width (English) Interior 20 in., Capacity (English) 22 gal., Color Yellow, Depth (English) Interior 14.56 in., Depth (Metric) Interior 37cm, No. of Doors 1, For Use With (Application) Flammables, Height (Metric) 165.1cm, Width (Metric) 59.05cm, Type Slimline storage cabinet, Weight (English) 200 lb., Height (English) Interior 60.5 in., Material CR Steel, Width (Metric) Interior 50.8cm, Certifications/Compliance FM, NFPA, OSHA, Depth (English) 18 in., Depth (Metric) 45.7cm, Door Style Manual Close, No. of Shelves 3, Height (English) 65 in., Width (English) 23.25 in., Surface Coating Epoxy, Polyester, Includes U-Loc™ handle with cylinder lock and key set, 3 Galvanized Steel shelves and 2 in. leakproof sump, dual vents, adjustable leveling feet, a grounding connector and large trilingual warning label, Weight (Metric) 90kg, Manufacturer: Justrite™ 892200 currently in stock	1	523.67

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
197	S51029MF Manual Close Metal Acid and Corrosive Safety Cabinet Item Specification: 40 gallon capacity, Rugged 18-gauge steel construction Tough, blue epoxy-powder coating on all interior and exterior surfaces, including shelves, High-density, polyethylene trays with a drip edge for the shelves and bottom, Manual close door, Hold six 18.9L (5 gal.) safety cans, Warning label reads: "Caution: Corrosives", 170L (45 gal.), Two manual doors, Dimensions: 46 x 109 x 165cm (18D x 43W x 65 in.H), Not recommended for storage of phenol, nitric acid, or sulfuric acid. Certifications: FM approved, Manufacturer: EAGLE MANUFACTURING CRA47/EMD currently in stock	1	851.28
198	TI Nspire CX Color EZ Spot Yellow Classroom 30 pack (Calculators) Item Specification: 30 - TI Nspire CX in EZ Spot Yellow with "School Property" printed on each unit, 30 - TI Nspire Rechargeable Battery (Installed in each unit), 3 - TI Nspire CX Docking Station, 3 - 90 Day Trial of TI Nspire and TI Nspire CAS Teacher Software, 3 - Poster, 30 - Quick Reference Card, 15 - Unit-to-unit USB Cable, 30 - Unit-to-computer USB cable, Getting Started Materials, currently on backorder S02280ND - sold as teacher pack, 10 calculators per pack	11	1,566.44
199	TI Nspire CX Navigator System - 30 User S04706ND Item Specification: INCLUDES: 1 - TI Nspire Navigator Teacher Software CD 1 - TI Navigator Access Point 1 - AC Adapter 30 - TI Nspire Navigator Wireless Network Adapters 3 - Wireless Network Adapter Storage Bags 1 - Start Here Guide 1 - TI Nspire Navigator Reference Guide 1 - USB Computer Cable currently on backorder	11	2,912.20
PRODUCT BENEFITS: Critical thinking: Two-way communication and feedback in the classroom allows educators a more detailed assessment of documents, how students are approaching problems and their process of learning the material. Completely wireless: Snap-on Wireless Network Adapters for student handhelds and a wireless access point for the teacher's classroom computer transfer files to the whole class at once. Instant assessment: Educators can quickly gauge the understanding of individual students or the class. Individualized instruction: Based on the progress of different students, educators can adjust their instruction to meet individual needs. Flexibility: Through real-time student feedback, teachers can adjust their instruction or redirect a lesson as needed. Mobility: Students and educators can show the class work on their handheld from anywhere in the room using Live Presenter. Professional development programs and a variety of curricular materials are available on MathNspired.com and ScienceNspired.com to help educators easily adopt and implement the TI-Nspire CX Navigator System.			
KEY FEATURES: Compatible with a single classroom setup of TI-Nspire CX handhelds and/or TI-Nspire CX CAS handhelds.** (Handhelds not included) Review and analyze each student's answers. View a class summary, a student-by-student analysis or an item-by-item analysis. Slideshow capabilities allow anonymous viewing of class results. Upgrade operating systems on all students' handhelds at one time. Collect, grade, save and record each student's work. Create multiple-choice questions to quickly assess student understanding. Quick Poll feature gathers instant feedback from students and provides educators the ability to instantly assess student understanding. Screen Capture feature gives educators an ability to capture screen shots of each student's graphing calculator to monitor work.			

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
<p>PRODUCT DETAILS:</p> <p>Real-time feedback and instant assessment of student understanding. Monitor student work to ensure everyone is on track and on task. Facilitate an engaging, collaborative learning environment. Quickly send TI-Nspire documents to students. Auto grade student assignments and tests.</p> <p>SOFTWARE:</p> <p>For the System Requirements for the latest version of TI-Nspire Navigator Teacher Software for handhelds, visit education.ti.com/software/requirements.</p> <p>HARDWARE:</p> <p>Uses 802.11b/g technology for efficient, wireless communication in the classroom Supports up to 60 students Durable – designed for the classroom environment Easy to configure Wireless communications encrypted using WPA2 Enterprise</p> <p>TI-NSPIRE CX NAVIGATOR ACCESS POINT:</p> <p>Dedicated access point to ensure quick communication to student TI-Nspire CX and TI-Nspire CX CAS handhelds** USB-powered Micro USB connection to computer using a USB port Maximum range of approximately 70 feet from access point to TI-Nspire CX Wireless Network Adapter One wireless network adapter connects to one TI-Nspire CX or TI-Nspire CX CAS handheld** Power wireless network adapter through the TI-Nspire CX or TI-Nspire CX CAS handheld** ** TI-Nspire CX nor TI-Nspire CX CAS are not included</p>			
202	<p>HGH-BTA Hand-grip Heart Rate monitor currently in stock</p> <p>Item Specification: The design of the Hand-Grip Heart Rate Monitor makes it easy to monitor heart rate before, during, and after exercise. Data are wirelessly transmitted to a Vernier interface using the Heart Rate Receiver. Data can also be transmitted using Bluetooth® to LabQuest 2 (may require additional hardware), iOS®, or Android™ devices without the receiver. Simple and easy to use, Hand grips do not require electrodes or clips, Easy to clean and share between students, Battery Type: CR 2025 (user-replaceable), Battery Lifetime: 200 hrs, Operating Temperature: -10 to 50°C, Radios: Bluetooth and 5 kHz RF transmission Wireless range: RF Transmission: 80 to 100 cm, Bluetooth: 10 m or more unobstructed</p>	8	113.65
203	<p>EZ-TMP easy temp probe currently in stock</p> <p>Item Specification: Vernier EasyTemp has a mini-A USB connector that allows you to attach the temperature probe directly to the USB port of a TI-84 Plus graphing calculator or TI-Nspire handheld. Connecting the sensor to the calculator or handheld will automatically launch the data collection application, and you are ready to collect data. Temperature range: -20 to 115°C, Maximum temperature that the sensor can tolerate without damage: 150°C, Resolution: 0.07°C, Accuracy: ±0.5°C, Response time: 4 s (to 90% of full reading in water)</p>	32	36.29
204	<p>GPS-BTA Vernier Gas Pressure Sensor</p> <p>Item Specification: Pressure Range: 0 to 210 kPa (0 to 2.1 atm or 0 to 1600 mm Hg), Accuracy: ±4 kPa, Maximum pressure that the sensor can tolerate without permanent damage: 4 atm, Sensing Element: Honeywell SSCMRN030PAAAS currently in stock</p>	16	79.27

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
205	COL-BTA Vernier Colorimeter currently in stock Item Specification: Range: 0 to 3 (absorbance), Useful Range: 0.05 to 1.0 (absorbance), 90% to 10% transmittance (%T), Wavelengths: 430 nm, 470 nm, 565 nm, 635 nm, Typical Resolution: 0.035 %T, Supply voltage: 5VDC +/- 25 mV, Supply current: 40 mA (typical), Power up time: 700 ms (maximum), Output voltage range: 0 – 4 V, Transfer function: $V_{out} = 0.035 \times (\%T) + 0$	3	109.83
206	CON-BTA Vernier Conductivity Probe Item Specification: Range: Low Range: 0 to 200 $\mu S/cm$ (0 to 100 mg/L TDS), Mid Range: 0 to 2000 $\mu S/cm$ (0 to 1000 mg/L TDS), High Range: 0 to 20,000 $\mu S/cm$ (0 to 10,000 mg/L TDS) Typical Resolution: Low Range: 0.1 $\mu S/cm$ (0.05 mg/L TDS), Mid Range: 1 $\mu S/cm$ (0.5 mg/L TDS), High Range 10 $\mu S/cm$ (5 mg/L TDS) Accuracy using factory calibration: $\pm 8\%$ of full-scale reading for low range, $\pm 3\%$ of full-scale reading for mid range, $\pm 4\%$ of full-scale reading for high range Accuracy using custom calibration: $\pm 2\%$ of full-scale reading for each range, Response Time: 98% of full-scale reading in 5 seconds, 100% of full-scale in 15 seconds, Temperature Compensation: automatic from 5 to 35 °C, Temperature Range (can be placed in): 0 to 80 °C, Cell Constant: 1.0 cm ⁻¹ , Description: ABS body, parallel carbon (graphite) electrodes, Dimensions: 12 mm OD and 150 mm length currently in stock	3	90.73

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
207	<p>EZ-LINK Vernier EasyLink currently in stock</p> <p>Item Specification: Data Collection Versatility - EasyLink is a single-channel interface that plugs into the USB port of a TI-84 Plus graphing Calculator or TI-Nspire Handheld. EasyLink support any one of over 45 Vernier sensors. Use EasyLink to explore math and science concepts found in real-world phenomena such as light, pressure, force, and more.</p> <p>How to use EasyLink Connect a compatible sensor to EasyLink. Connect EasyLink to a TI-84 Plus or TI-Nspire handheld, and the Vernier data collection software launches automatically. Press Start and you are collecting data.</p> <p>Calculator Requirements TI-84 Plus or TI-84 Plus Silver Edition Calculator Operating system 2.30 or higher EasyData v2.4 TI-84 Plus C Silver Edition EasyData v4.0 TI-84 Plus CE EasyData v5.0 TI-Nspire or TI-Nspire CAS handhelds Handheld software version 3.0 or higher DataQuest Application (Included In handheld software)</p>	32	56.35
208	<p>PH-BTA Vernier pH Sensor currently in stock</p> <p>Item Specification: Type: Sealed, gel-filled, epoxy body, Ag/AgCl Shaft Diameter: 12 mm OD Response time: 90% of final reading in 1 second Temperature range: 5 to 80°C Range: pH 0-14 Accuracy: +/- 0.2 pH units Isopotential pH: pH 7 (point at which temperature has no effect)</p>	16	75.45
209	<p>DFS-BTA Vernier Dual Range Force Sensor currently in stock</p> <p>Item Specification: The Dual-Range Force Sensor is a general-purpose sensor for measuring pushing and pulling forces. Two ranges allow you to measure forces as small as 0.01 newtons and as large as 50 newtons. It can be used in a broad range of ways: As a replacement for a hand-held spring scale Mounted horizontally on a dynamics cart to study collisions Mounted on a ring-stand to measure forces in a vertical direction Collect data from two Force Sensors simultaneously to study Newton's Third Law</p> <p>10 N Range Resolution: 0.01 N ± 50 N Range Resolution: 0.05 N</p>	3	104.10

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
210	SPR-BTA Vernier Spirometer Item Specification: Flow rate: ± 10 L/s Dead Space: 93 mL Nominal Output: 128 mV/[L/s] Detachable Flow Head Dimensions: 80.5 mm (diameter) \times 101.5 mm (length) Mass: 80 g Construction: Clear acrylic plastic Handle Dimensions: 127 mm \times 23 mm \times 35 mm Mass: 85 g Construction: Black ABS plastic Cable length: 1.5 meters currently in stock	2	190.06
211	CBR2 Vernier Calculator-Based Ranger 2 currently in stock Item Specification: The CBR 2 collects distance, velocity, and acceleration data while connected directly to a TI graphing calculator, so you don't need a data collection interface like LabPro® or CBL 2™. The connection to the calculator is through the calculator link port or, if you have a TI-84 Plus, TI-84 Plus Silver Edition, TI-Nspire or TI-Nspire CAS, the CBR 2 can connect to the calculator's USB port. CBR 2 Key Benefits Use CBR 2 to teach important concepts in physics, physical science, and math. Engage your students with hand-on activities. Study the motion of a ball tossed in the air, or a cart on a ramp. Attach CBR 2 directly to the Vernier Dynamics Track. Other Important Features Include The measurement range is 0.15 m to 6 m. CBR 2 has a sensitivity switch which lets you customize settings to your experiment. The CBR 2 is built with a pivoting head, making it easy to set up experiments. It works with TI-73 Explorer, TI-82, TI-83, TI-83 Plus, TI-84 Plus, TI-86, TI-89, TI-92, TI-92 Plus, TI-Nspire, TI-Nspire CAS, and TI Voyage 200 calculators. The CBR 2 can also be connected to a CBL, CBL 2, LabPro, LabQuest, or LabQuest Mini (using MDC-BTD cable, sold separately).	16	104.56
212	AP6167 Observation and Experiment - Introduction to the Scientific Method - Guided-Inquiry Kit Offer, S19455 Scientific Method Problem Solving Kit Lab Aids, 100A (See attached specifications) Item Specification: Students mix two solids and a liquid in a closed container and observe a dramatic series of changes—temperature changes, color changes, and changes in state. What interactions are responsible for each observation? Are the changes independent of one another? In this open-ended, inquiry-based introduction to the scientific method, students first make observations and then design controlled experiments to identify the substances responsible for each change. Designed as a first experience for the chemistry lab, this activity is a fun and easy way to introduce students to the study of chemistry—students can actually hold an experiment in their hands to see and feel what chemistry is all about. Students learn that the scientific method is not a rigid path, it is a process—a process of discovery! Includes reproducible student handouts, detailed background information, complete Teacher Notes with sample data and answers to all questions, and all necessary chemicals and consumable supplies. Complete for 30 students working in pairs. currently on backorder	3	71.50

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
213	<p>AP7689 AP Environmental Science kit</p> <p>Item Specification: Fourteen student laboratory kits developed with the current Environmental Science curriculum in mind—all in one cost-saving bundle! From life in soil to landfill decomposition, from wind energy to the greenhouse effect, this convenient kit bundle will engage your students with hands-on experiments that help cement understanding of many of the topics covered in this capstone course. Advanced Placement and AP are registered trademarks of the College Board, which was not involved in the production of, and does not endorse, these products.</p>	3	NO BID
<p>The following kits are included in this convenient bundle:</p> <ul style="list-style-type: none"> • Mapping Earthquakes and Volcanoes—Student Activity Kit • Specific Heat and Climate—Student Laboratory Kit • Exploring Groundwater—Activity-Stations Kit • Physical and Chemical Properties of Soil—Student Laboratory Kit • Stream Macroinvertebrate Sampling Simulation—Student Activity Kit • Discover Life in the Soil—Student Laboratory Kit • Duckweed Population Study—Student Laboratory Kit** • Landfill Decomposition—Student Laboratory Kit • Common Uses of Rocks and Minerals—Student Laboratory Kit • Wind Energy—Student Laboratory Kit • Build a Solar Cell—Student Laboratory Kit • Environmental Pollution—Student Laboratory Kit • Environmental Pollution and Lichens—Student Laboratory Kit • Greenhouse Effect and Global Warming—Student Laboratory Kit <p>Use this comprehensive bundle to capture your students' attention unit by unit throughout the entire course. Not only do the kits cover the key science concepts, but they also provide opportunities for genuine scientific thought and laboratory skills.</p> <p>**Lemna (duckweed) must be ordered separately for Duckweed Population Study Kit.</p>			
214	<p>AP6876 Flinn Hands-On Chemical Element Set</p> <p>Item Specification: This "hands-on" element set enables students to pick up and safely investigate properties of elements. Teaching characteristics of metals, nonmetals, and relationships between periods and groups in the periodic table has never been so easy! Complete set includes 14 samples of 11 different elements and activity ideas. The elements provided are aluminum, carbon, copper, iron, magnesium, nickel, lead, sulfur, silicon, tin, and zinc. Three forms of copper (shot, strip, and wire) and two allotropic forms of carbon (graphite and charcoal) are included with the set to show students that elements may take on various appearances. Each element comes in a durable plastic zipper-lock bag labeled with the name, symbol, and group number of the contents. Oversized storage tray allows extra space for your own creative additions to the set!</p>	3	NO BID

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
215	<p>AP7393 Determining a Balanced Chemical Equation - Student Laboratory Kit Offer, S28486 - Introduction to Chemical Equations Kit Aldon Corp IS2514 (See attached specifications) currently on backorder</p> <p>Item Specification: Stoichiometry! A word as strange to some students as the concept it defines. A balanced chemical equation gives the mole ratio of reactants and products for a chemical reaction. When chemical formulas are known, it is relatively easy to determine the mole ratios. When formulas are not known, students must apply experimentation to solve for these ratios. This experiment uses the method of continuous variation. First, solutions of the reactants are prepared with known concentrations. Solutions are then mixed a number of times using different volume ratios of reactants. Third, a property of the reaction—in this case, heat liberated—is measured. Students use the data to graph the mole ratio versus change in temperature. The intersection of the lines drawn through the ascending and descending data points gives the correct mole ratio for the reaction. Includes reproducible student handouts, detailed background information, Teacher Notes with sample data and answers to questions, and all chemicals and consumable supplies needed to perform the lab. Complete for 30 students working in pairs. Perform this experiment in a fume hood or well-ventilated lab.</p>	3	48.98
216	<p>AP7247 Identifying an Unknown Metal Carbonate - Stoichiometry Guided Inquiry Kit Offer, S90736 AP Chemistry Kit: Stoichiometry Aldon IS8011 (See attached specifications)</p> <p>Item Specification: How do chemists determine the identity of a compound? A variety of analytical techniques and procedures, ranging from classical, wet-chemistry methods to instrumental methods, have been developed to accomplish this important task. In this stoichiometry, guided-inquiry lab, students use two different analytical techniques to identify and confirm an unknown Group 1 metal carbonate. In Part 1, students measure the loss in mass when they react their metal carbonate with acid to produce carbon dioxide gas and use the stoichiometry of the gas evolution reaction to identify and confirm the unknown sample. In Part 2, students titrate the metal carbonate with hydrochloric acid and again use the stoichiometry of the titration reaction to determine or confirm the moles of carbonate ion in the unknown. The level of student independence or teacher direction in this guided-inquiry lab can be modified to suit your level of instruction. Students improve their laboratory technique skills and develop pride and ownership of their work when faced with an inquiry challenge! Includes Teacher Notes with complete sample data, reproducible student handouts with background information, and all necessary chemicals and consumable supplies. Complete for 30 students working in pairs. currently in stock</p>	3	27.14
217	<p>AP6363 Mole Ratios - Copper and Silver Nitrate - Student Laboratory Kit Offer, S90728 AP Chemistry Kit: Mole Ratio, Aldon IS8003 (See attached specifications)</p> <p>Item Specification: Stoichiometry—what a strange and scary word! Teach students about mole ratios and take the fear out of stoichiometry calculations with this student lab activity. The reaction of copper wire with silver nitrate in aqueous solution shows chemistry in action. Silver crystals grow on the wire surface and the color of copper(II) ions appears in solution. Students measure the mass of the silver produced, determine the mass of copper wire that reacted, and calculate the number of moles of each. After comparing the number of moles of reactants versus products, students determine the mole ratio and write the balanced chemical equation for the reaction. When students first see the beautiful silver crystals in this reaction, many think they can get rich quick. Stoichiometry teaches them otherwise! Includes reproducible student handouts, detailed background information, complete Teacher Notes with sample data and answers to questions, and all chemicals needed to perform the lab. Complete for 30 students working in pairs. currently on backorder</p>	3	22.32

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item Number	Item Description	Estimated Quantity	Unit Price
218	<p>AP5607 Flame Test - Student Laboratory Kit</p> <p>Item Specification: Add a splash of color to your flame! In this kit, students will observe the characteristic color of light emitted by metallic salts when placed in a flame. By simply dipping a moist wooden splint in the solid metallic salt, then placing the wooden splint in the flame, students will be able to identify the color of light emitted for calcium, copper, lithium, potassium, sodium and strontium. The basic lab activity is ideal for physical science and Introductory chemistry classes. Incorporate the optional data analysis section and extensions to challenge your higher level students. Includes reproducible student handouts, complete Teacher Notes with sample data, answers to questions and ideas for extensions plus all the materials needed to perform the lab. Offer, S67398 Flame test of Chemicals Lab</p> <p>Complete for 30 students working in pairs. Neo Sci 201693 (See attached specifications) currently in stock</p>	3	118.30
219	<p>AP4862 Precipitation Reactions and Solubility Rules - Super Value Kit</p> <p>Item Specification: All nitrates are soluble! Most hydroxides are insoluble! Rather than memorizing solubility rules like this, students investigate precipitation reactions and then develop their own general rules of solubility—exactly what the National Science Standards are calling for! Students perform 42 chemical reactions by combining sets of salt solutions. From their observations, students generate lists of soluble and insoluble substances. By analyzing patterns and making some generalizations, students develop solubility rules. Detailed Teacher Notes and reproducible student handouts include easy-to-follow lab instructions, data tables, helpful tips and sample data.</p> <p>Super Value Kit is complete for 5 classes of 30 students working in pairs. Fifteen reusable 48-well reaction plates are recommended and available separately.</p>	3	NO BID
220	<p>AP7285 Solids and Liquids - Activity - Stations Kit</p> <p>Item Specification: The properties of solids and liquids provide a mirror for us to “see inside” the world of atoms and molecules—to understand the motion of molecules and to compare the interactions among different types of molecules. In this activity-stations lab, students will investigate energy and phase transitions, the nature and strength of intermolecular attractive forces, and the relationship between the properties of a metal and its crystalline structure. Each activity focuses on a different aspect of the properties of solids and liquids. The result is a comprehensive lab activity for this important unit in the chemistry curriculum. • Phase Change—Cooling Curve • Intermolecular Forces • Vaporization • Properties of Metals Four mini-lab activities are set up around the classroom. Each activity is designed to take about 10 minutes to complete, with student groups rotating through the four stations. Teacher Notes with sample data, extensive background material, reproducible student handouts, and all chemicals and consumables needed to perform all the activities are supplied. Complete for 8 student groups. Perform this experiment in a fume hood or well-ventilated lab.</p>	3	NO BID

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
221	<p>AP7705 Flinn's Exploring Chemistry - 10 Kit Bundle</p> <p>Item Specification: The Flinn's Exploring Chemistry™ Curriculum Packages 10-Kit Bundle is comprehensive and cost-saving, including all 10 of the Flinn's Exploring Chemistry™ packages. These experiments, demonstrations, and activities ensure student success.</p> <p>Share your passion for chemistry and achieve your most important goal—student success—with integrated lab and learning activities for 10 major topics in your chemistry curriculum!</p> <p>We have selected the best-of-the-best activities for each topic. These are the experiments, demonstrations, and POGIL™ activities that ensure students will really understand the concepts. Chemistry is NOT a set of isolated facts to be memorized. Flinn's Exploring Chemistry™ labs and activities will take students on a virtual tour inside the test tube to see the world of chemistry where it begins—at the molecular level. Students succeed because they will see the evidence and develop the reasoning needed to build connections between facts. As students begin to get a glimpse of the underlying simplicity and beauty of chemistry you can be sure they will talk about the fun and excitement they have had in chemistry class at the family dinner table.</p> <p>Each package includes chemicals, specialized materials, and complete instructions, as well as free online video resources, for these best-of-the-best experiments, demonstrations, and POGIL™ learning activities. Each package serves three classes of 30 students working in pairs! Flinn shares your passion for chemistry. Our new Exploring Chemistry™ activities will assist you in achieving your most important goal—student success!</p> <p>10-Kit Bundle includes:</p> <ul style="list-style-type: none"> • Introduction to Chemistry—Matter and Measurement Package • Atomic and Electron Structure Package • Periodic Table Package • Chemical Bonding Package • Chemical Reactions Package • Molar Relationships and Stoichiometry Package • Gases and the Gas Laws Package • Thermochemistry Package • Solids, Liquids, and Solutions Package • Acids and Bases Package 	3	NO BID
222	<p>FB1095 Biology and Chemistry of Soil - Student Laboratory Kit</p> <p>Item Specification: The soil under our feet is a wonderful place to explore the living world. Using ordinary soil samples and easy-to-follow techniques, students are able to conduct a thorough evaluation of the soil in your area. Students will identify the types of microorganisms in their soil and perform pH, nitrate, and phosphates tests. Conclusions will then be made concerning the soil's ability to support growth. Detailed teacher's guide and student worksheets are included. Complete for 30 students working in pairs.</p>	3	147.04

Offer, S42866 - Soil Analysis Earth Science
Aldon IS8702 (See attached specifications)
currently on backorder

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
223	<p>AP7625 Flinn Laboratory 21-Kit Bundle for Classic AP Chemistry</p> <p>Item Specification: The Flinn Laboratory Kits for Classic AP® Chemistry 21-Kit Bundle is a cost-saving, comprehensive bundle for Classic AP® Chemistry. Save time and money while promoting understanding with this 21-kit bundle.</p>	3	582.40
<p>The Flinn Classic AP® Chemistry Laboratory Kit Series is available as a cost-saving bundle—everything you need to teach the classic AP Chemistry in one place!</p> <p>Comprehensive bundle includes the following 21 traditional laboratory kits:</p> <ul style="list-style-type: none"> • Determination of the Empirical Formula of Silver Oxide • Analysis of Aluminum Potassium Sulfate • Determination of the Molar Mass of Gases and Volatile Liquids • Molar Mass by Freezing Point Depression • Determining the Molar Volume of a Gas • Acid-Base Titrations • Oxidation-Reduction Titrations • Determining the Stoichiometry of Chemical Reactions • Determination of the K_a of Weak Acids • Selecting Indicators for Acid-Base Titrations • Kinetics of a Reaction • Thermodynamics—Enthalpy of Reaction and Hess's Law • Separation and Qualitative Determination of Cations and Anions • Synthesis and Analysis of a Coordination Compound • Gravimetric Analysis of a Metal Carbonate • The Determination of K_{eq} for $FeSCN^{2+}$ • Liquid Chromatography • pH Properties of Buffer Solutions • An Activity Series • Electrochemical Cells • Synthesis, Isolation, and Purification of an Ester <p>Offer, S90748 -AP Chemistry Kits, Set of 22 Aldon IS8023 (See attached specifications) currently on backorder</p>			

BID# 15-18 SCIENCE EQUIPMENT & SUPPLIES BID FORM

Item	Item	Estimated	Unit
Number	Description	Quantity	Price
224	FB2080 AP Biology Inquiry Laboratory Kit Bundle <i>currently in stock</i> Item Specification: Flinn Advanced Inquiry Lab Kits for AP® Biology Kit Bundle is a comprehensive bundle that contains all of the AP® Biology laboratory kits offered by Flinn except FB2046 and FB2049. Save time and promote understanding.	3	814.94
Offer, S06892 AP Labs Special Package: 12 Labs; Edvotek APPKG (See attached specifications) Save time and promote understanding with the Flinn AP® Biology Inquiry Laboratory Kit Bundle! Comprehensive bundle includes all the following laboratory kits. Live material is required and available separately under the Accessories tab. For more details about each kit, click on the catalog numbers below or see More Information about New AP® Biology Kits. Big Idea 1 <ul style="list-style-type: none"> Investigation 1, Artificial Selection—Advanced Inquiry Laboratory Kit (Catalog No. FB2036) Investigation 3, Understanding Evolutionary Relationships—Advanced Inquiry Activity Kit (Catalog No. FB2041) Big Idea 2 <ul style="list-style-type: none"> Investigation 4, Water Potential—Advanced Inquiry Laboratory Kit (Catalog No. FB2032) Investigation 4, Diffusion and Osmosis—Advanced Inquiry Laboratory Kit (Catalog No. FB2030) Investigation 5, Photosynthesis in Leaf Disks—Advanced Inquiry Laboratory Kit (Catalog No. FB2034) Investigation 6, Cellular Respiration—Advanced Inquiry Laboratory Kit (Catalog No. FB2045) Big Idea 3 <ul style="list-style-type: none"> Investigation 7, Environmental Effects on Mitosis—Advanced Inquiry Laboratory Kit (Catalog No. FB2031) Investigation 7, Cancer and the Loss of Cell Cycle Control—Advanced Inquiry Activity Kit (Catalog No. FB2033) Investigation 7, Sordaria Genetics—Advanced Student Laboratory Kit (Catalog No. FB2001) Investigation 8, Bacterial Transformation—Advanced Student Laboratory Kit (Catalog No. FB2042) Investigation 9, Restriction Enzyme Analysis of DNA—Advanced Student Laboratory Kit (Catalog No. FB2043) Big Idea 4 <ul style="list-style-type: none"> Investigation 11, Rate of Transpiration—Advanced Inquiry Laboratory Kit (Catalog No. FB2038) Investigation 12, Fruit Fly Behavior—Advanced Inquiry Laboratory Kit (Catalog No. FB2037) Investigation 13, Peroxidase Enzyme Activity—Advanced Inquiry Laboratory Kit (Catalog No. FB2039) 			



INDUCTION COIL, SPARK IN 50MM

SKU: PH1168F

UPC: 849230053703

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 Pin It

 Fancy

 +1

DESCRIPTION

WHAT'S IN THE BOX

INSTRUCTIONS AND RESOURCES

The traditional Induction coil capable of producing a spark with an input of 6 to 12 V DC and is therefore ideal for use with vacuum tubes, eudiometers etc. A fully adjustable vibrator system is incorporated and spark suppression capacitors are housed in the base. A pair of pointer electrodes are supplied with the instrument. Pointer electrode have an insulating handle for adjustment of the spark gap. Low voltage input is via a pair of mounted 4 mm Sockets.

Induction Coil, Spark in 50mm



Lab-Aids™ Scientific Method Problem-Solving Kit

Focuses on problem definition, data collection, hypothesis formation, testing and use of controls.

Manufacturer: Lab-Aids, Inc. 100A

Includes: Chemplates™ with spatula (15); two each of seven numbered solutions in drop-controlled bottles: 0.1M HCl, 0.1M H₂SO₄, 0.1M NaOH, 0.1M KOH, 0.1M HNO₃, 0.1M Ca(OH)₂, 0.1M Zn(NO₃)₂; drop-controlled vials Bromothymol Blue indicator (4); drop-controlled bottle Unknown I and Unknown II; student worksheets; and instructions

Catalog No. S19455

\$110.00 / Each

Qty

Description

- Focuses on problem definition, data collection, hypothesis formation, testing, and use of controls
- Investigate the causes of color change (a chemical reaction) in Bromothymol Blue indicator
- A good follow-up to Ob-Scertainer™ Kit (S19422)

Order Info

Class size: 30 students

Specifications

For Use With (Application)	Focuses on problem definition, data collection, hypothesis formation, testing and use of controls
Product Type	Scientific Method Problem Solving Kit
Includes	15 chemplates™ with spatula, two each of seven numbered solutions in drop-controlled bottles, 0.1m hcl, 0.1m h2sO4, 0.1m naoh, 0.1m koh, 0.1m hno3, 0.1m ca(oh)2, 0.1m zn(no3)2, 4 drop-controlled vials bromothymol blue indicator, drop-con



Innovating Science™ Introduction to Chemical Equations Educational Kit SCIED

Catalog No. S28486

\$75.00 / Each

Qty

To perform a series of experiments highlighting the differences in two common types of chemical reactions; single replacement and double replacement. Innovating Science Introduction To Chemical Equations Educational Kit, help students to identify chemical reactions and write balanced chemical reaction equations.

Manufacturer: Aldon Corporation IS2514

Includes: 60mL Cobalt Nitrate 0.1M; 60mL Cupric Nitrate 0.1M; 60mL Ferric Nitrate 0.1M; 60mL Nickel Nitrate 0.1M; 60mL Aluminum Nitrate 0.1M; 300mL Sodium Hydroxide 0.2M; 150mL Hydrochloric Acid 2.0M; 150mL Silver Nitrate 0.1M; 6g Zinc Metal; 15 pieces Copper Wire; 1 pack Wooden Dowels

Description

- Contains enough materials for 15 groups
- Teacher's manual and Student Study Guide copymasters are included

Specifications

For Use With (Application)	Educational use
Product Type	Introduction To Chemical Equations Educational Kit
Kit Size	15 groups



Innovating Science™ AP Chemistry Kits: *Stoichiometry* SCIED

Performs a series of chemical reactions that lead to the synthesis of the ionic compound potassium alum.

Manufacturer: Aldon Corporation IS8011

Catalog No. S90736

\$41.75 / Each

Qty

Includes: Material for 15 groups: 25g Aluminum metal powder UN1396 (2); 250mL Potassium Hydroxide, 3.0M solution UN1814 (2); 250mL Sulfuric Acid, 3M solution UN2796 (4); 250mL Ethanol/Water V/V 50/50% solution UN1170 (4); teacher's guide; and student copy masters

Specifications

For Use With (Application)	Performs a series of chemical reactions that lead to the synthesis of the ionic compound potassium alum
Product Type	Stoichiometry Chemistry Kit
Includes	2 x 25g aluminum metal powder, 2 x 250ml potassium hydroxide, 3.0m solution, 4 x 250ml sulfuric acid, 3m solution, 4 x 250ml ethanol/water v/v 50/50% solution, teacher's guide and student study guide copymasters
Kit Size	15 lab groups



Innovating Science™ AP Chemistry Kits: *Mole Ratio*

In this experiment, the total number of moles of reactants are kept constant while varying each reactant.

Manufacturer: Aldon Corporation IS8003

Catalog No. S90728

\$29.50 / Each

Qty

Includes: Materials for 15 groups: 400g Sodium Thiosulfate, Anhydrous; 250mL Sodium Hypochlorite, 13% conc. UN1791; teacher's guide; and student copy masters

Description

The measurements are made on each different ratio until the optimum ratio — the stoichiometric ratio in the equation — is made, which consumes the greatest amount of reactants, produces the greatest amount of product and produces the greatest amount of heat.

Specifications

Product Type	Mole Ratio Chemistry Kit
Includes	3 x 250ml sodium hypochlorite 13% concentrate, 1 x 237g sodium thiosulfate, anhydrous, teacher's guide and student study guide copymasters
Kit Size	15 lab groups



Flame Test of Chemicals Lab

\$26.75 - \$182.00

Catalog Number	Mfr. No.	For Use With (Application)	Product Type	Price	Quantity & Availability
S67398	Neo/Sci Corporation 201693	For identification of unknown elements using flame colors	Flame Test Of Chemicals Kit	Each for \$182.00	<input type="text"/>
S67399	Neo/Sci Corporation 201695	To identify elements based on distinctive colors they produce by heating over a flame	Flame Test Of Chemicals Refill	Each for \$26.75	<input type="text"/>

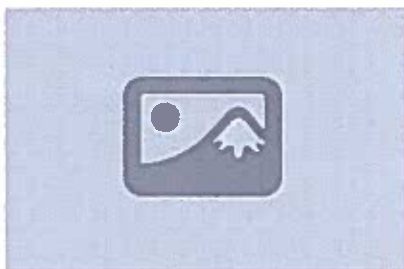
Description

This lesson provides information about the electronic structure of atoms, and the relationship between color and energy in the electromagnetic spectrum. Using included spectrosopes, your students will:

- Observe and record the various colors rendered by metallic elements in the compounds they heat over a flame
- Compare their results to known standards and determine the identity of five unknown elements

Order Info

Class size: 40 students.



Innovating Science™ Soil Analysis Earth Science

Innovating Science™ Soil Analysis Earth Science kit will teach students the skills needed to properly conduct soil composition tests as well as allow them to collect and evaluate local soil samples.

Manufacturer: Innovating Science™ IS8702

Catalog No. 542866

\$225.00 / Each

Qty

Description

Soil composition has been a keystone experiment in earth science classrooms for many years.

- This soil analysis kit will teach students the skills needed to properly conduct soil composition tests as well as allow them to collect and evaluate local soil samples
- By bringing in local soil samples the students can build a stronger connection to their own local environment while still building on a knowledge base that can be applied to any other environment

Kit Includes:

- 10 x 1.5mL Universal Indicator Solution
- 10 Universal Indicator Solution Color Chart
- 28mL Bromoform
- 28mL Bromobenzene
- 10 x 6mL 0.5M Potassium Chromate
- 10 x 6mL 0.5 M Hydrochloric Acid 2
- 50 Drying Dishes
- 20 Polarizing filters
- 20 Sieve Screen Small
- 20 Sieve Screen Large
- 10 Magnifiers
- 10 Forceps
- 10 Plastic Scoops
- 1 package Glass Slides
- 10 Soil Sample A, 12g
- 10 Soil Sample B, 12g
- 10 Soil Sample C, 12g
- 10 Soil Sample D, 12g

Specifications

Certifications/Compliance

Product SDSs

Includes	10 x 1.5mL Universal Indicator Solution, 10 x 6mL 0.5M Potassium Chromate, 10 x 6mL 0.5 M Hydrochloric Acid, 28mL Bromoform, 28mL Bromobenzene, 10 Soil Sample A, 12g, 10 Soil Sample B, 12g, 10 Soil Sample C, 12g, 10 Soil Sample D, 12g, 10 Magnify
For Use With (Application)	Science Education
Product Type	Earth Science



Innovating Science™ AP Chemistry Kits: *Complete Set of* 22

Manufacturer: Aldon Corporation IS8023

Catalog No. 590748

\$896.00 / Each

Qty

Description

Complete set includes all 22 AP Chemistry Kits:

- Thermochemistry & Hess Law
- Activity Series
- Mole Ratio Reactants
- Le Chatelier's Principle
- Ester Formation
- Acid-Base
- Reaction Kinetics
- Dissociation of Weak Acids
- Qualitative Analysis
- Beer-Lambert Law
- Stoichiometry
- Equilibrium Constant
- Oxidation-Reduction
- Freezing Point Depression
- Vapor Pressure
- Electrochemical Cells
- Thin-Layer Chromatography
- Molecular Mass of a Liquid
- Thermochromism
- Water Hardness
- Synthesis of Aspirin
- Grignard Method

Specifications

For Use With (Application)	For lab activities
Product Type	Complete Set Chemistry Kit

Includes	Thermochemistry & Hess Law, Activity Series, Mole Ratio Reactants, Le Chatelier's Principle, Ester Formation, Acid-Base, Reaction Kinetics, Dissociation of Weak Acids, Qualitative Analysis, Beer-Lambert Law, Stoichiometry, Equilibrium Constant, Oxidation-Reduction, Freezing Point Depression, Vapor Pressure, Electrochemical Cells, Thin-Layer Chromatography, Molecular Mass of a Liquid, Thermochromism, Water Hardness, Synthesis of Aspirin, Grignard Method
Kit Size	15 lab groups



Edvotek™ AP™ Labs Special Package: 12 AP Labs

Manufacturer: Edvotek APPKG

Catalog No. S06892

\$1,170.00 / Pack

Qty

Description

Contains:

- Lab 1: Artificial Selection
- Lab 2: Mathematical Modeling: Hardy-Weinberg
- Lab 3: Comparing DNA Sequences to Understand Evolutionary Relationships with BLAST
- Lab 4: Diffusion and Osmosis
- Lab 5: Photosynthesis
- Lab 6: Cellular Respiration
- Lab 7: Cell Division: Mitosis and Meiosis
- Lab 8: Biotechnology: Bacterial Transformation
- Lab 9: Biotechnology: Restriction Enzyme Analysis of DNA
- Lab 11: Transpiration
- Lab 12: Fruit Fly Behavior
- Lab 13: Enzyme Activity