

National 4-H Curriculum

REVISED

**FY 2008 Request for Applications
4-H Science, Engineering & Technology
Curriculum Development**

For applicants that are invited to submit a full proposal:

**Full Application Deadline
Noon Eastern Time, Monday, November 24, 2008**

Only those invited to submit a full proposal, following pre-proposal reviews, are eligible for consideration for an award to develop curriculum. No other proposals will be reviewed.



National 4-H Headquarters



Cooperative State Research, Education and Extension Service



U.S. Department of Agriculture

**2008 National 4-H Curriculum RFA
4-H Science, Engineering & Technology Curriculum Development**

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* Please resubmit Appendix C only if you want to submit changes based on further development of the full proposal. If a revised Appendix C is not submitted with your application, assume peer reviewers will use Appendix C as submitted with your pre-proposal. Appendix D remains available as a guide for completing Appendix C.

**2008 National 4-H Curriculum RFA
4-H Science, Engineering & Technology Curriculum Development**

SUMMARY: The National 4-H Headquarters, CSREES, USDA announces the availability of funds—from National 4-H Council—and requests applications for fiscal year (FY) 2008 to support the development of effective, high quality 4-H curriculum. Specific topics for curriculum development in this RFA are *engineering, basic science, and alternative energy* as they relate to environmental science. Funding levels will depend on the scope of the proposal, and time and resources needed to produce the curriculum.

This notice identifies the objectives for the curriculum, the eligibility criteria for projects and applicants, instructions for submitting applications.

PROPOSAL DEADLINE: NOVEMBER 24, 2008 (12 noon, Eastern Time)

Applicants with successful pre-proposals are invited to submit a full proposal, using the Application for 4-H SET Curriculum Development Form to natl4hcurr@csrees.usda.gov by 12 noon Eastern Time November 24, 2008. If the attachment exceeds 5 MB, please make a PDF of the document and email the PDF instead.

Please also attach Appendix C *if you want to submit changes based on further development of the full proposal*. If a revised Appendix C is not submitted with your application, assume peer reviewers will use Appendix C as submitted with your pre-proposal. Appendix D remains available as a guide for completing Appendix C.

FOR FURTHER INFORMATION: Applicants and other interested parties are encouraged to direct questions to:

General curriculum and RFA – **Ryan Schmiesing**, National Program Leader, National 4-H Headquarters, USDA, phone (202) 720-5075, fax (202) 720-9366, or **Maria Arnold**, Youth Development Program Specialist, National 4-H Headquarters, USDA, phone (202) 720-8857, or both Ryan and Maria at natl4hcurr@csrees.usda.gov.

Budget development, contractual agreements, production and marketing - **Nancy Schaff**, Project Manager, Curriculum, National 4-H Council; Phone: (301) 961-2868; Fax: (301) 961-2937; E-mail: nschaff@fourhcouncil.edu.

All materials, instructions, and required forms are posted on the National 4-H Headquarters web site at <http://www.national4-hheadquarters.gov> and at <http://www.4-hcurriculum.org/>.

I. GENERAL INFORMATION

A. Background

Beginning in 2008 with this call, National 4-H Headquarters and National 4-H Council—in partnership with representatives from the Cooperative Extension System (CES)—are working within a new system to develop, review, produce and distribute national curriculum for the 4-H

Youth Development program. National 4-H Headquarters is responsible to work with the CES to set priorities, develop and disseminate Requests for Applications (RFA), select proposals for funding through a peer review process, train staff, provide technical assistance and peer review final products for quality standards. National 4-H Council is responsible for the publication, design, and distribution of the completed curriculum. This new system is built on the strengths of the former 4-H Cooperative Curriculum System (4-HCCS), a 501(c)(3) that has been legally dissolved.

In determining the topics for this “call,” universities were surveyed. The curriculum topics included on the survey represented current 4-H curriculum topics that were due for revision prior to and including 2008. Also, new topics were recommended by the Science, Engineering, and Technology (SET) Task Force. In addition, input was gathered from young people through focus groups at National 4-H Conference, and discussions with State 4-H Program Leaders at their annual meeting. Sales data and other curriculum use information were reviewed. The National 4-H Curriculum Priority Setting Task Force made recommendations to the National 4-H Curriculum Leadership Team which endorsed the list of priorities. This is the first in a series of “calls” for National 4-H curriculum development and focuses specifically on SET topics within the Environmental Sciences.

Training and Technical Assistance (T/TA) is built into this curriculum process, including the budget. Awardees will work with National 4-H Headquarters, USDA and with our private partner, National 4-H Council, throughout the development of the curriculum. Curriculum Advisors will engage with awardees at various checkpoints to ensure development is on track and of high quality, including mini field tests and a pilot evaluation. When the curriculum is ready for dissemination, Curriculum Advisors will conduct a final, streamlined quality review. Curriculum is then “conditionally accepted.” During 1 year of conditional acceptance, (1) users will be invited to share feedback about the curriculum, and (2) the awardee(s) will conduct an outcome evaluation. Following a successful trial period, curriculum will be formally recognized as National 4-H Curriculum.

B. Statement of Need for SET Curriculum

In response to the report, *Rising Above the Gathering Storm* we, as a nation, must ensure that our youth have the science, engineering, technology, and life skills they need for the United States to maintain competitiveness in a growing global economy and changing workforce. Science, engineering and technology literacy is increasingly a pre-requisite for informed and active citizenship and leadership. Public debate issues from bio-terrorism to genetically modified foods are becoming increasingly complex, and current, relevant issues such as climate change, the energy crisis, and land use for food need to be in forefront of the minds of the next generation. 4-H is at a turning point in its history with an extraordinary opportunity to extend its legacy as a leader in hands-on, non-formal science, engineering and technology education into a 21st Century framework to address these issues.

Literacy in the 21st century means not only having science, engineering and technology knowledge and abilities, but also the analytic, inventive, communication, interpersonal and self-directional skills that youth can apply to extend their understanding into community action. Through partnerships with trained and caring adults, young people gain mastery, independence, a sense of belonging and a passion to serve through 4-H SET programming.

SET programs are clearly on the national agenda and the CES is responding by developing SET curriculum as a top priority. While 4-H has an abundant collection of curriculum to support individual and group learning in a variety of SET-related topics, 4-H must strengthen and expand its portfolio within a conceptual SET framework to produce the next generation of scientists, engineers and technology experts. 4-H SET curriculum will be based on national science education standards, science abilities, life skills, workforce competencies, and literacy for the 21st Century.

C. Purpose and Priorities

National 4-H Headquarters is calling for applications for curriculum development in Engineering, Basic Science, and Alternative Energy as they relate to the Environmental Sciences. Awards will be made on a competitive basis as a result of merit review and recommendations of a peer review panel. Projects will be awarded up to \$100,000.00 for materials intended to be used in print plus supplemental digital media and Internet content, resources and information that enhance learning. Additional funds may be available for the development of other highly creative learning strategies (e.g. online games that reinforce learning).

Applicants have flexibility in determining the following:

- Specific curriculum topic within the categories listed below.
- Targeted grades (3-5, 6-8, and 9-12). Ages, developmental stages and skill levels should all be considered.
- Individual and/or group curriculum.

D. Specific Topics for Curriculum Development in This Call

It is the long-range vision of the National 4-H SET Curriculum Team to develop “suites” of curriculum that are based on a broad curricular framework. Suites are broad science categories (i.e. environmental, plant, animal, agricultural and food sciences) comprised of multiple clusters of interrelated science areas. The Environmental Sciences Suite is the first one to be populated with curricula focusing on the physical, biological, and earth sciences areas.

The 4-H SET Curriculum Team has developed *Exploring Your Environment* and *The Power of the Wind* as part of the Environmental Sciences Suite that is scheduled for release in 2008.

To further expand the Environmental Sciences Suite, specific topics for curriculum development in this RFA are *engineering, basic science, and alternative energy* as they relate to environmental science. Suggestions for development are offered below, but are not all inclusive. Highly creative approaches and applications are expected.

1. Engineering

Youth will learn and apply the engineering design process within the context of environmental science. In this curriculum, youth will be able to apply engineering design principles to complete projects such as: (1) develop, create, or invent prototypes that could solve environmental problems with minimal impact on the environment, and/or (2) develop

prototypes of interest and with relevance to the youth (i.e. barn, house, rocket, car, or airplane) showing how the prototype would impact various aspects of the environment.

Environmental engineering topics for consideration in the physical, biological, and earth sciences could include: healthy water, air, and land for humans and other organisms; remediation of polluted sites (waste disposal and reuse); improving the environment by better understanding the relationship between the natural and the built environment (building codes and regulations/water, land and air use); regulating and provisioning ecosystem services; public health issues; the impact of proposed construction projects on the environment; knowledge of environmental engineering law; and the practice of engineering design.

Examples of learning experiences could include aspects of bridge building, soils and soil erosion, sustainable agriculture, low impact hiking trails, outdoor living spaces/ playground design as well as topics of personal interest listed under (2) above.

In 4-H, there is a need for curriculum in this area for all grade/age levels and for individuals and groups.

2. Basic Science

Through a basic science curriculum youth will develop positive attitudes toward science, gain science knowledge, apply science skills/abilities in relevant, real life situations, use inventiveness to problem solve, and contribute to the community by becoming a *citizen scientist*. Finding the science behind everyday items and answering the “so what” of environmental issues related to topics such as global change, water resources, air quality, biodiversity, invasive species, human/animal/plant population changes, and natural resource management are a few suggested areas of emphasis. Learning experiences could include science out the back door, science in woods, science in aquatics, science in the community, or science around birding/entomology.

The recently revised 4-H SET curriculum, *Exploring Your Environment*, addresses basic environmental science at a middle school level, focusing on the topics of ecosystems, adaptations, and earth stewardship. There is a need in this curricular area at both elementary and high school levels for individuals and groups.

3. Alternative Energy

Through this curriculum, youth will explore alternative energy source(s) as they relate to the environment. They will apply science abilities, engineering design skills, and science inquiry to determine best ways to identify and address current energy needs in their community. They could devise a local implementation plan and contribute to a greater pool of information by becoming citizen scientists.

Alternative Energy is a term used for a source of energy that: does not involve fossil fuels, is non-traditional, and has a low environmental impact. By most definitions, alternative energy doesn't harm the environment, a distinction which separates it from renewable energy which may or may not have significant environmental impact.

Topics that could be included are solar powered vehicles and machines, geothermal systems of heating and cooling, flex-fuel vehicles, effective and safe alternative people-powered transportation. Other topics relevant to alternative energy include climatology, changes in land forms (erosion, volcanoes and earthquakes), geochemical cycles, and water (flood control, water purification).

The recently revised 4-H SET curriculum, *The Power of the Wind*, addresses engineering design as applied to wind energy issues for middle school students.

In 4-H, there is a need in this curricular area at both elementary and high school levels for individuals and groups. There is also a curricular need to focus on other aspects of alternative energy at all grade levels and for individuals and groups.

E. Definition of Curriculum

For the purposes of this “call,” curriculum is defined as products (both print and electronic) for individuals and groups that guide planned learning.

1. 4-H Individual Project Curriculum

The emphasis is on products for individual learning by youth with the guidance of an adult/youth helper. Products for the adult/youth helper to guide and support learning must be included.

Products provide in-depth content on subjects, often with multiple levels of difficulty. These materials provide breadth, depth, duration, and frequency of learning experiences. The curriculum design provides sequentially planned learning experiences that are intended to produce changes in knowledge, attitudes, skills, aspirations, and/or behaviors.

2. 4-H Curriculum for Groups

The emphasis is on products for adult or youth leaders to facilitate group learning. Materials should be easy to implement with limited preparation time and modest resources. Materials for the youth participants are integral for learning. Materials to take home for family reinforcement are also very important, particularly with younger audiences.

Curriculum is designed to be used in small or large groups that have approximately 30-45 minutes per learning session and are guided by an adult or youth facilitator. Curriculum should be designed for a minimum of 6 total hours of educational experiences. The curriculum design provides sequentially planned learning experiences that are intended to produce changes in knowledge, attitudes, skills, aspirations, and/or behaviors.

F. SET Curriculum Characteristics and Elements

The following characteristics and elements reflect the work of the SET Task Force and are included as a resource for applicants in writing proposals.

- Engage youth in relevant, fun and timely learning experiences that increase awareness of SET and current SET issues.

- Encourage youth to take action at a personal and community level to problem-solve issues that contribute to positive impact.
- Are developed sequentially across a learning path and focused on science unifying concepts or big ideas and essential questions. Unifying concepts from the national science standards include: 1) systems, order, and organization, 2) evidence, models, and explanation, 3) change constancy and measurement, 4) evolution and equilibrium, 5) form and function. Other examples of big ideas or universal themes are patterns, conflict, exploration, structure, relationships, and power.
- Use content based on National Science Education Standards.
- Focus on developing SET knowledge, skills and abilities in young people and assisting them in applying what they've learned to real life situations.
- Provide opportunities to practice life skills and 21st Century literacy skills.
- Assist youth to experientially find the science behind everyday items and experiences and apply what they discover to real life situations using open-ended and guided science inquiry and the engineering design process as appropriate.
- Connect youth to SET experts who can model how to think and act like scientists, engineers, and technologists, practice SET abilities, share personal passion about the topic, and provide career information and exploration opportunities. This can be via face to face experiences, field trips, online interactions, etc.
- Emphasize becoming *citizen scientists*.
- Provide strategies for adult and teen leaders to create learning environments for children and youth that are grounded in the essential elements of positive youth development: belonging, mastery, independence, and generosity.
- Follow a sequence that is age- appropriate for topic/ experience-appropriate for increasing skill levels.
- Provide sufficient support materials and information for adults and teens to facilitate the curriculum with youth. Print, online, and technologies are used. Materials are written at an 8th grade reading level.
- Average about 30-45 minutes per learning lesson for group curriculum and 45-50 minutes for individual learners plus additional learning experiences.
- Include approximately 12-16 learning activities (episodes) that support outcomes for each “big idea concept” that is being taught in curriculum for individuals. “Big ideas” are equivalent to chapter or module titles.
- Require minimal preparation time for the facilitator. As a general rule, preparation time is twice (2:1) the implementation time (a 15 min. lesson would require 30 min. of preparation). However, many variables can impact preparation time. Facilitator materials should include enough information to reduce planning time as much as possible. Approximately one hour per learning lesson for facilitators/helpers working with individual learners, and approximately 10-15 minutes per learning lesson for those working with groups is more realistic.
- Require no-cost or low-cost materials or resources to implement most of the curriculum.
- Include evaluation materials that staff can use to measure the intended outcomes of the curriculum.
- Will have significant scope and breadth. It is expected that the number of lessons developed would cover multiple weeks of programming; Applications must warrant the amount of money requested.
- Is intended to be translated into Spanish—and potentially other predominant languages - following national curriculum acceptance.

G. Quality Standards and Review

National 4-H Headquarters, USDA presents the following quality standards for this SET curriculum development process. These standards build on recent national curriculum quality review criteria and result from processes that incorporate the work of the Curriculum Quality Review Task Force and subsequent peer review. These standards will inform T/TA efforts *during* curriculum development—including the work of the Curriculum Advisors—as well as a guide for the review process prior to conditional acceptance of the curriculum.

Criteria and processes for ensuring quality and relevancy of national 4-H curriculum to youth and volunteer facilitators continue to be iterative processes. The quality standards here will apply to this SET RFA. Work continues to refine quality review standards and processes for future national 4-H curriculum development efforts.

SUBJECT MATTER/CONTENT QUALITY STANDARDS

- Subject matter is research-based, incorporating the research of the land-grant universities
- Content is current
- Content is accurate
- Presentation of content, including scope and sequence, is developmentally appropriate for the target audience and designed to support multiple learning styles
- Curriculum includes guidance for youth to explore career options
- Safety issues are addressed—including Internet safety considerations
- Facilitator materials clearly identify knowledge and skills needed for adult/teenage facilitators

POSITIVE YOUTH DEVELOPMENT QUALITY STANDARDS

- Curriculum entails a framework that integrates overarching concepts with sub-themes/components that connect directly to learning lessons
- Outcomes are clearly stated for each lesson and the collective curriculum
- Activities provide for inquiry-based learning, including opportunities for experimentation, investigation, questioning (youth and facilitator generated as appropriate), and argumentation
- Activities move the learner along an experiential learning path where they are given opportunities to experience/explore, share/process, generalize and apply
- Curriculum design demonstrates efforts to reach multiple learning modalities, (e.g., visual, auditory, kinesthetic)
- The Essential Elements of the 4-H Youth Development Program are embedded in the curriculum—opportunities for youth to experience belonging, mastery, independence and generosity
- The curriculum offers opportunities for developing youth-adult partnerships
- Subject matter learning opportunities are present which enhance cognitive, physical, social and emotional domains

PRODUCT DESIGN QUALITY STANDARDS

- Meets 4-H Name & Emblem graphic standards
- Meets with basic national 4-H curriculum design/graphic standards (for print and non-print media)
- Use of photographs, illustrations, other graphics draw attention to content and assists users in understanding content

INCLUSIVITY/DIVERSITY QUALITY STANDARDS

- The curriculum is inclusive and relevant—materials appear to be inclusive and relevant to multiple groups based on race, ethnicity, gender, class, sexual orientation and other differences
- The curriculum reflects equity and social justice, e.g., the curriculum addresses issues of fairness and respect across differences
- The curriculum promotes self reflection in terms of learning about self and others' identities and cultural experiences by encouraging thinking and learning about content from multiple and diverse perspectives
- The curriculum serves as a tool for building and strengthening relationships across differences in a safe and caring learning environment

EVALUATION QUALITY STANDARDS

- **Pilot test standards** (pilot testing to be implemented *during curriculum development*)
 - High quality pilot design
 - High quality evaluation tools
 - Appropriate and sufficient sampling approach
 - Feasibility: procedures are practical and cost effective
 - Protection of human subjects: testing designed and conducted to respect and protect human subjects (including IRB processes where applicable per the land grant university's policies)
 - Qualitative and/or quantitative analyses described appropriately and accurately (replicable)
 - Minimum reporting requirements: The report clearly describes the pilot test:
 - Setting;
 - Sample;
 - Procedures, including curriculum implementation and pilot study methods;
 - Findings and revisions implemented as a result of the pilot testing:
 - Assessment: The assessment was complete and fair in its examination and documentation of the strengths and weaknesses of the curriculum
 - Incorporation of feedback from the pilot: The report clearly and accurately describes how the pilot test findings were use to improve the curriculum
- **Outcome evaluation standards** (evaluation to be implemented *during conditional acceptance*):
 - Pilot testing standards, and
 - Evidence of impact – clearly and accurately describes how the curriculum achieved the learning objectives
 - Credible evaluation claims – evidence presented which supports the evaluation's claims (interpretations are linked to the data, alternative explanations for documented outcomes presented, limitations of the evaluation presented)

H. Products/Deliverables

At a minimum, each type of curriculum developed (individual or group) must include:

1. Individual 4-H Project Curriculum

- Print and/or online materials for individual youth, intended to be primarily self-instruction with guidance from an adult or teen. Online materials would be integral for the learning outcomes.
- Print and/or online materials for the adult or teen facilitator. Online materials would be integral for the learning outcomes.
- A web site and/or online resources that enhance and expand the curriculum.

2. 4-H Curriculum for Groups

- Print and/or online materials for adult or youth leaders to facilitate group learning.
- Print and/or online materials for youth participants that is integral for learning.
- Print materials and/or online resources to take home for family reinforcement, particularly for curriculum targeted to younger ages.
- A web site and/or online resources that enhance and expand the curriculum.

I. New Mediums and Contemporary Topics

A variety of formats and mediums—as well as effective integration of appropriate technology to support learner outcomes and curriculum objectives—is expected. Technology should be used to enhance learning and collaboration, as well as update and adapt curriculum for multiple audiences and contexts. Curriculum for the 21st Century must be contemporary, interactive, and also fun and engaging for youth. Internet security and parental permission are top priorities.

The curriculum should include (1) online digital media (examples include, but are not limited to: cell phones, compact disc, digital video, digital television, e-book, Internet, minidisc, video game, World Wide Web, and many interactive media) and (2) the Internet.

The following table includes, but is not limited to, potential technologies that support specific learner outcomes.

Outcomes	Strategies
Facilitate feelings of belonging, support and membership among learners	Formation of online communities, cohort groups, clubs, mentoring relationships, and teams.
Accommodate and show respect for diverse learning styles, cultural preferences, multiple perspectives and contexts	Use online ability to access similar information through multiple modalities, examples and case studies that can be tailored to the learner's culture, multi-faceted teaching approaches, and modules or activities that can be added or dropped to fit different contexts.

Encourage learner recording of observations, ideas, and reflections to promote full implementation of the experiential model, information and media literacy, and demonstration of learner mastery	Use online science notebooks, record books, spread sheets, tagging, blogs and online data collection; online information search and compilation of valid information sources; drawings, photos, video, simulations and models; opportunities to experiment, face obstacles, fail and learn from failure, obtain feedback; create presentations and online portfolios.
Encourage learner creativity, innovation and performance	Development of digital videos, zines, mash-ups, simulations, games, and other products.
Facilitate effective online communication and interaction	Utilize chatrooms, IM, texting, social networking, twitter, blogging; setting boundaries, protecting privacy, dealing with bullying and taking responsibility for one's actions online.
Promote interaction and collaboration	Includes teamwork, problem-solving and peer-to-peer learning, pooling knowledge and synthesizing, tagging, social bookmarking, negotiation, content-based challenges, and cooperative online activities and games.
Promote expression of youth voice, opportunities to influence others and contribution to community	Include blogging, podcasts; opportunities for youth shared power, planning and decision-making.

In addition, it is expected that curriculum will link to and integrate resources of:

- Access 4-H—make use of the tools and gadgets available such as club websites, social networking, calendars, impact and effort statements, and action steps
- eXtension—link to the breadth and depth of content and experiences offered by Communities of Practice (CoP's) relevant to the curriculum topic and/or creating a CoP, or a youth sub-committee of CoP, to expand the curriculum.

J. Eligibility

Provisions of eligible applicants and applications follow:

- Applications may be submitted only through land-grant universities or 4-H sanctioned entities (such as 4-H Foundations).
- Lead authors and the majority of contributors can only be from land-grant universities.
- Individuals, groups, single university or multi-university teams (state and county staff).
- States, groups, individual university or multi-university teams may submit multiple proposals.

K. Budget Information and Terms and Conditions for Full Proposals

1. Grants and Amounts

- Awards of up to \$100,000 will be considered.
- Applicants may develop their own budgets of any amount. Reviewers will compare the scope of the proposal, and time and resources needed to produce the curriculum, with the proposed budget and recommend budget modifications if needed.
- Full Applications must submit a budget form and budget narrative that corresponds with the scope of the proposal.
- The amount awarded to each proposal will be determined based on review and recommendations of a peer review panel.

2. Allowable Budget Items

The following items are examples of allowable expenses with estimated ranges. The amounts given are based on past guidelines and expenditures. However, applicants may add items and develop appropriate costs as long as they can be justified in the budget narrative.

Lead Author/Coordinator	Up to 20% of the lead author's time/salary commensurate with scope of project (this amount can be divided between multiple staff).
Lead Author/Coordinator Fringe	University rate
Graphic Design	\$50 –125 per page
Writer	\$50 - \$100 per page
Photographer	\$25 - \$100 per photo
Online content designer	\$500 - \$1,000
Online content development	\$2,000 - \$15,000
Editor/Proof Reader	\$20-\$30 per page
Translation Services	\$1,000 to \$5,000
Travel—including travel for key contributors/consultants during curriculum development	Estimated @\$1,800 per person per day
Curriculum promotion—Travel to national conference(s) to promote curriculum	\$1,000 - \$2,500
Pilot Testing (e.g. gifts/incentives for participants, surveys, analysis of data, observers, instruments)	\$5,000 to \$15,000.00
Duplicating materials for the national review process	\$200.00 to \$1,000.00

Lead authors and appropriate contributors are required to participate in national trainings (face-to-face and electronic) prior to the award and during formulation and writing.

For new mediums and technologies (e.g. interactive on-line modules, educational games, video/video streaming, social networking), it may be possible to develop additional line items and expenditures beyond what is given as examples above.

As a strategy for disseminating the curriculum nationally, authors and/or team members will be expected to conduct “train-the-trainer” sessions, perhaps at multiple locations, on the completed curriculum. Additional money will be allocated for this task.

All money will be awarded to the lead university through a sub-contract with National 4-H Council. The university would be responsible for contracting all services. National 4-H Council can supply a list of companies who have worked on national 4-H curriculum in the past if resources outside the university are required.

Any changes in the approved budget must be approved by the Project Manager, Curriculum, National 4-H Council.

3. Costs Covered by National 4-H Council

National 4-H Council will be responsible for the following costs. Therefore, they do not need to be included within the budget.

- Duplicating copies of print and electronic materials, shipping, and other costs related to national distribution.
- Ongoing support of online content.
- Marketing curriculum through the 4-H Supply Catalog, online and print materials and other avenues.
- Coaches and mentors.
- Following acceptance of curriculum as national 4-H curriculum, and pending available funds, working with curriculum developers to modify the curriculum for Spanish-speaking or other audiences.

4. Indirect Costs

Indirect costs may not be charged.

5. Other Non-Allowable Costs

Non-Allowable costs include, but are not limited to:

- Building permanent structures and renovation.
- Administrative overhead expenses.
- Expenditures that do not directly support the proposed project.

6. Matching Requirements

There are no matching requirements associated with this grant, and matching resources will not be factored into the review process as evaluation criteria. However, it is encouraged to show outside resources that have been leveraged to create the proposed curriculum.

While no match is required, it would greatly inform future curriculum planning to have information on any cash or in-kind resources donated to curriculum development. Therefore a section in the Budget Form and Budget Narrative has been included that

addresses potential leveraged resources (in-kind, value of salaried or volunteer staff time, etc.) Use the cost per hour articulated by the Independent Sector at: www.independentsector.org, under the heading “Research.”

7. Terms and Conditions

Each successful applicant will be required to enter into a contract with National 4-H Council covering performance of the work. The contract shall include reasonable and customary commercial terms for work of this nature and shall address at least the following:

- Criteria for completion of the work: Curriculum will be developed in collaboration with National 4-H Headquarters, USDA National 4-H Program Leaders, National 4-H Council staff, Curriculum Advisors, and 4-H Mission Mandate team members as appropriate. Curriculum must adhere to National 4-H Council Graphic Standards and must pass the peer review process established in 2008. Curriculum must be modified per recommendations of peer review process as part of this contract.
- Schedule for all deliverables, including quarterly progress reports: It is expected the curriculum will be completed (ready to submit to national review), including pilot testing, within 18 months after execution of the contract.
- Payment terms: An initial payment will be made upon execution of the contract, interim payments based upon specified deliverables and a final payment upon passing the national review process. If the curriculum does not pass the national review process, final payment will be withheld and the project will be reevaluated for continued support and development.
- Curriculum Development Team (if applicable): Appointment of Project Director and requirements for participation on Team. The successful applicant will be responsible for retaining the services of all Team members in accordance with the requirements and for all payments for such services.
- Confidentiality.
- Insurance & liability.

Each contributor to the development of curriculum or the employer of such contributor (if applicable) will be required to enter into a License Agreement with National 4-H Council, which shall include at least the following terms:

- The contributor will retain ownership of the intellectual property rights.
- The contributor will grant to National 4-H Council a royalty-free, worldwide right and license to exercise all rights in the curriculum of every kind, nature and description.
- Representation and warranty that contributed material is original and/or contributor has obtained required rights from the creators.
- Confidentiality.

II. REVIEW PROCESS

A. Timelines and Process

Full proposals (and updated Appendix C if desired) are due by noon, Monday, November 24, 2008. Assume notification by early January 2009.

B. Peer Review Panels

Applications will be considered by teams of professionals representing areas such as: youth development, curriculum, content, technology, diversity, volunteerism, and graphic design.

C. Evaluation Criteria for Proposals

Applications that meet minimum technical requirements (e.g., utilizing the application form provided and contain all requested information) will be reviewed. The evaluation criteria below will be used in reviewing proposals submitted in response to this RFA. "Applicant" refers to the proposed curriculum team, including staff and consultants.

1. 20 points. Subject Matter / Content.

- Does the applicant demonstrate expertise in and understanding of the subject matter content?
- Does the applicant present a research base that is current and reflects the research of the land-grant university(ies)?
- Does the proposed plan include appropriate and adequate plans for ensuring facilitators have access to the knowledge and skills needed to provide a rich learning opportunity for young people?
- Is the subject matter relevant for a national audience?

2. 20 points. Positive Youth Development.

- Does the applicant demonstrate expertise in and understanding of current human and youth development research?
- Does the applicant present a clear framework for the overall curriculum and expected outcomes?
- Does the applicant present clear expected outcomes, based on the framework, that are integrated into proposed activities/lessons?
- Do proposed curriculum activities/lessons provide for inquiry-based learning?
- Does the applicant demonstrate an understanding, and provide plans for, moving learners along an experiential learning path?
- Does the applicant demonstrate an understanding of the Essential Elements and plan for opportunities for youth to experience belonging, mastery, independence and generosity?
- Does the applicant demonstrate an understanding of and plan for activities/lessons to address different learning modalities?
- Does the applicant demonstrate an understanding of youth-adult partnerships and plan for fostering these partnerships?

3. 15 points. Product Design

Does the applicant demonstrate expertise in designing, formatting and packaging materials and ensuring the proposed curriculum will be accessible, attractive, and easy to use by youth and facilitators?

Is the target audience(s) clear?

Does the curriculum, as proposed, support planned delivery methods?

Do proposed curriculum components and activities/lessons appear to be designed to meet expected outcomes?

4. 10 points. Inclusivity / Diversity

Does the applicant demonstrate expertise and understanding regarding inclusivity and the importance of the proposed curriculum being relevant to multiple groups?

Does the applicant's plan reflect equity and social justice, in other words, are there plans for addressing issues of fairness and respect across differences?

Does the proposed curriculum encourage thinking and learning about content from multiple and different perspectives?

Does the proposed curriculum serve as a tool for building and strengthening relationships across differences in safe and caring learning environment?

5. 15 points. Evaluation

Does the applicant demonstrate expertise in designing, implementing, and reporting pilot tests and outcome evaluations?

Are the proposed pilot test's focus, approach, and data collection methods feasible and adequate for ensuring the curriculum is implemented as planned and will result in findings that indicate if expected outcomes are or are not met?

Are pilot test and outcome evaluation plans practical and cost effective?

6. 5 points. Budget

Is the budget adequate and appropriate for the scope of the proposal?

7. 15 points. Project Management

Is the staffing appropriate for the project?

Do proposed team members have the skills and expertise needed to develop high quality curriculum?

Is the timeline realistic to complete the project within the timeframe of the proposal?

III. AWARD ADMINISTRATION/ROLES AND RESPONSIBILITIES

A. Curriculum Lead Author (Principal Investigator)

- Develop application and materials for submission to National 4-H Headquarters.
- Formulate the appropriate team to develop, pilot, and evaluate proposed curriculum.
- Provide format and design recommendations to National 4-H Council.
- Collaborate with 4-H Council on production.
- Collaborate with National 4-H Program Leaders, Mission Mandate Teams, and others on the development and evaluation of the curriculum.

B. National 4-H Headquarters and Partners

- Develop and disseminate RFA's.
- Coordinate Pre-Proposal review.

- Invitation to successful applicants to submit Full-Proposal.
- Coordinate Full-Proposal Review and select grantees.
- Serve as liaison to the selected projects in areas such as content development, evaluation, training, and the Quality Review process and standards.

C. National 4-H Council

- Design (or work with university sub-contractor to design), print or duplicate, and distribute curriculum and resource materials.
- Serve as liaison to the selected projects for successful completion of deliverables in the contract and licensing agreements.
- Disburse funds as per the approved budget items.
- Support on-line development of materials and ongoing maintenance
- Secure resources and potential funding.
- Marketing and distribution support.