Scaling the Heights

Level 3
Pet Project Activity Guide
Note to the Project Helper

If you were a project helper for one or more youth involved in completing Scouring Ahead you know what a great experience this important role is. As the Helper you are in a perfect position to help youth grow and develop in positive ways as they learn about pets and about themselves. You can nurture and cultivate their interest in this project by guiding their planning, helping them carry out their projects and recognizing them for a job well done.

Your Role

• Become familiar with the material in this activity guide and the Pet Helper’s Guide
• Support youth in their efforts to set goals and complete each achievement program
• Date and initial the activities on the Pet Achievement Program as they are completed and the two of you discuss them
• Help youth to get to know themselves, including their strengths and weaknesses
• Encourage the use of the experiential learning cycle described on this page

The 4-H Pet Series

This guide, Scaling the Heights, is the third in the series of three for youth that also includes Pet Pal, Scouring Ahead and the Pet Helper’s Guide. The three youth guides have been designed to be developmentally appropriate for grades 3–4, 5–7 and 8–9 respectively, but may be used by youth in any grade based on their project skills and expertise.

All activities in the guides have several parts: A description of the skills to be practiced; discussion questions, suggestions for additional activities and additional helpful information. The Show of Success listed for each activity is an excellent way to evaluate the youth’s success. Each of the guides also includes an achievement program to encourage youth to learn more about pets while developing important life skills. In the Helper’s Guide you will find another evaluation piece titled “Evaluating the Impact.” Complete this before the youth begins each level and after completing each level.

Each activity is designed so the young person has an opportunity to learn by doing before being told or shown how. Your challenge is to “sit on your hands” while the youth explores the activity and learns from the experience, even when it doesn’t work the way it’s expected to. You can most effectively help with the learning by listening as the young person considers the questions and draws conclusions. At times the activity may call for you to be a resource person for content or ideas.

The fourth publication in this series, Pet Helper’s Guide, provides additional learn-by-doing activities that can be adapted to the family, the classroom, 4-H clubs and other groups. You’ll also find helpful hints about characteristics of youth, life skill development, teaching experientially, meeting ideas as well as answers to many of the activities in the youth guides.

Experiential Learning Model

This five-step model is included in each activity in this series.

1. Experience
   - what was learned in a similar or different situation
   - practice

2. Share the results
   - reactions, observations, reflections

3. Process the experience
   - looking at the experience; analyze, reflect

4. Generalize
   - adapt the experience to real-world settings

5. Apply
   - what was learned to a similar or different situation

Youth do the following steps or shown how.

Acknowledgements

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Original Design Team: Bill Gleason, WI; Roger Holmes, MN; John Skinner, WI; Marcella Remund, SD; Gordy Perkins, MN; and Tom Zurcher, PhD, MI.

As you can see, the youth first attempt the activity without assistance. After the youth do as much as they can they then meet together and discuss: What did they do? What was important about what they did? How does what they did relate to their lives? And finally, how might they use the life and project skills practiced in the future? Sample questions are included following each experience. Your ability to ask additional thought-provoking questions and to clarify and expand the youth’s ideas will add to the educational experience.

Good luck in your helper role and thank you for contributing to the positive development of youth.
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For more on pets ... look for these other guides in this set.
Having Fun with the Pet Project

By now you are nearly an expert on pets, or certainly know more than you did when you started this project. Whether you raise one or several pets, you are in an excellent position to share your experiences with others. Scaling the Heights provides several opportunities for you to develop your leadership skills as you strive to complete the Scaling the Heights Achievement Program.

Here are some of the things you’ll do:
- Make a decision to breed or not to breed a pet
- Identify the parts of male and female rodents’ reproductive systems
- Complete a genetic problem
- Care for a new litter
- Complete a self-analysis profile
- Design and learn a lesson using the experiential process
- Help a youth complete a pet activity
- Tell a pet story through pictures
- Interview people in animal-related careers
- Help a friend make a decision about pet ownership
- Classify four species of animals

Scaling the Heights Project Guidelines

- Do a minimum of seven activities of the Scaling the Heights Achievement Program each year and complete this level within three years.
- Participate in a minimum of five of the learning experiences listed each year.
- Practice and develop the life skills of leading others, making decisions, and planning and communicating, while you learn to think creatively, use community resources, explore careers and take responsibility.
- Keep your planning guide current.
- Share your pet knowledge and skills with others.
- Have fun!

Scaling the Heights Achievement Program

If you completed Pet Pals and Scurrying Ahead, you know each chapter contains pet-related activities that encourage you to practice a certain life skill while doing the activity. In many cases, because this is an activity guide and not a resource manual, you will need to research other sources of information to complete a particular activity. The page of pet resources in the back of this guide and the 4-H Pet Projects online web page is a good place to start, but you’ll also want to work closely with your project helper. You’ll find an abundance of information on the Internet with literally thousands of sites containing information on pets and pet products.

Remember this is your own personal guide. Feel free to use it to record your thoughts and ideas. Most questions will not have a “right” answer. The questions will help you explore the subject and your own ideas in more depth. Additional activities are included in the Pet Helper’s Guide. Many of these are fun experiences for you to use with other youth as you develop your leadership skills.

Your Project Helper

Choose your own helper. This person might be a project leader or advisor, teacher, family member, neighbor, friend or anyone who has the interest to work with you to complete Scaling the Heights. Meet with your helper to set goals, plan and complete activities in this guide. Discussing each activity with your helper and having this special person date and initial your achievement program will make this project more interesting and fun.

Write the name, phone number and e-mail address of your project helper here:

My Project Helper: __________________________
Phone #: __________________________
E-mail address: __________________________

Good luck with Pet 3
Scaling the Heights
## Scaling the Heights

### Pet Project Goals

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Kind(s) of pet(s)</td>
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<tr>
<td>My most important goals for the pet project:</td>
</tr>
<tr>
<td>Year</td>
</tr>
<tr>
<td>Year</td>
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<tr>
<td>Year</td>
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</table>

## Learning Experiences

Complete at least five of these activities each year.

<table>
<thead>
<tr>
<th>Year</th>
<th>Year</th>
<th>Year</th>
<th>Activity</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Give a presentation</td>
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<td>Be a member of a pet organization</td>
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<td>Organize a pet project meeting</td>
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<td>Participate on a judging team</td>
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<td>Create a video presentation</td>
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<td>Exhibit at a fair</td>
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<td>Judge a pet show</td>
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<td>Conduct a pet skillathon</td>
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<td></td>
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<td></td>
<td>Organize a pet showmanship contest</td>
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## Pet Project Highlights

Date and list the exciting things you do and learn.

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## Scaling the Heights

### Pet Achievement Program

I certify that ___________________________ has completed all requirements of the Scaling the Heights Pet Achievement Program.

_________________________  _______________________
Project Advisor's Signature  Date
Achievement Program

Scaling the Heights

Directions
1. Do at least seven of the Scaling the Heights and More Challenges activities each year.
2. Complete at least 21 of the Scaling the Heights and More Challenges activities within three years to complete this achievement program.
3. Have your project helper date and initial the activities as you complete and discuss them.

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Activities</th>
<th>Date Completed</th>
<th>Helper's Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1 Pet Reproduction</td>
<td>Designer Genes</td>
<td></td>
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<td></td>
<td>To Breed or Not to Breed?</td>
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<td>Are you Sure?</td>
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<td></td>
<td>Special Care</td>
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<tr>
<td>Chapter 2 Careers and Leadership</td>
<td>Pets-N-Us</td>
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<td>The Right Fit</td>
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<td>Let's Explore Together</td>
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<td>Look to the Future</td>
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<tr>
<td>Chapter 3 Pet Issues and Ownership</td>
<td>The Perfect Pet</td>
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<td></td>
<td>Enviro-Pot</td>
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<td></td>
<td>Let's Debate</td>
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<tr>
<td>Chapter 4 Pet Science</td>
<td>Taxing Taxonomy</td>
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<td></td>
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<tr>
<td></td>
<td>Fun with Cockatiels</td>
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</tr>
</tbody>
</table>

More Challenges

Select and do any of the More Challenges activities in Scaling the Heights or make up your own. Record the page and number of each one you complete and have your helper initial.

| Page | # | Date Completed | Helper's Initial |

Write your own activity here.

Date _______ Helper's Initials _______

Write your own activity here.

Date _______ Helper's Initials _______

Write your own activity here.

Date _______ Helper's Initials _______
Chapter 1

Pet Reproduction

Designer Genes

Most of today’s pets are domesticated. That means they have been bred and raised in captivity for many years. They would have difficulty surviving in the wild today because they rely on humans to provide for their needs. Some pets have even changed physically due to years of breeding programs that have selected certain characteristics. These characteristics are determined by genes.

Do the Activity

Solve the following genetic problem for coat color in mice. The capital B (or dominant gene) represents black coat color and the small b (or recessive gene) represents brown coat color. Remember dominant always covers up the recessive characteristic.

1. What coat color would the four offspring have? Complete the chart by filling in the combinations. For example, the first square in the upper left corner would indicate a black coat color Bb because B is dominant over b.

   B  B  
   b  b

2. Now if both parents carried Bb genes and were bred to each other, what coat color would the four offspring have?

   B  b  
   b  b

3. What would happen if both mouse parents had brown coats or in other words both parents carried the bb genes. What coat color would the offspring have? (Draw this genetic chart below.)

   b  b  
   b  b

Which two came from the same parents?

Talk it Over

Share with your helper

- How difficult was it to decide the answers to the genetic charts?
- What characteristics would you breed for in your pet?
- How could you breed for those characteristics?

Tell what’s important

How does making decisions about the characteristics you want the offspring to have help you determine your breeding program?

Explore what you learned

How does thinking about future possibilities help you make decisions today?

Imagine what’s next

If you were going to create the perfect pet through a breeding program, what would your pet look like?

More Challenges

1. If possible, trace your pet’s genetic heritage and develop a pedigree or pet history. Try to find the owner of your pet’s parents and record information such as coat color, eye color, etc. Share with your helper the information you find.
To Breed or Not to Breed?

Deciding whether or not to breed your pet is an important decision that needs to be considered carefully. This activity will help you weigh the options as you practice how to make decisions.

Do the Activity

Begin by having your helper or a friend ask you questions about breeding a pet. Fill in the shapes with your answer. The last shape is for a question to be made up by your helper. Discuss your answers with your helper.

- How much money will it cost to raise a litter?
- Why would you want to breed your pet?
- What experience do you have caring for the pregnant female and raising newborns?
- Who can you talk to for help and advice?
- Maybe we should see if we can find good homes before we decide to breed you two.
- What will happen to the newborns once they are ready to be on their own?

Life Skill:
Considering the pet population issue

Pet Project Skill:
Making decisions

Show of Success:
Makes a decision to breed or not to breed a pet.
Talk it Over

Share with your helper
- How did you decide your answers to the questions?
- How did having someone else ask you the questions and discuss your answers with you help you make a decision

Tell what's important
What is your decision about breeding and how did you make that choice?

Explore what you learned
Now that you've reached a decision about breeding, what will you need to do to make sure things turn out as you've decided?

Imagine what's next
How does thinking about the consequences of your actions help you make better decisions?

Know Your Pets

Ants
The "ant farm" offers an opportunity to observe a colony of these industrious little creatures going about their daily chores of carrying food, building living arrangements, raising young, etc. Usually about 12 inches long, 6 inches high and 1 inch thick with a glass front, the ant farm lets you see their above ground and below ground activities as they work cooperative housing project.

Newborn cavies look like their parents.

More Challenges

1. Interview two "experts" or people with experience breeding and raising small animals. Plan your questions ahead of time. Record their answers and thank them for their time. Share the information with your helper.

2. Visit a Humane Society or animal shelter and make an inventory list of all the animals. Share your inventory with your helper. How do pet owners' decisions about breeding affect the numbers of animals in shelters?

Pet Facts

Homeless Pets
The American Humane Society reports that on an annual basis 12 million dogs and cats and other small pets are brought to local shelters around the country. Of the 12 million, 8–10 million are euthanized because there are not enough homes for all of them.
Are You Sure?

How do you tell? Knowing the sex of your pet is important, particularly if you want to raise little ones. For some pets like the rodents the male and female are relatively easy to tell apart. However for some other pets it takes a real expert to tell the difference. In this activity you’ll learn the parts of the reproductive system of male and female pocket pets.

Do the Activity
Identify the parts of the male and female rodents’ reproductive systems and complete the word find.

Reproductive System’s Word Bank

a. Clitoris
b. Epididymus
c. Infundibulum
d. Opening of urethra
e. Ovary
f. Oviduct
g. Penis
h. Prostate
i. Seminal vesicle
j. Testis
k. Urethra
l. Urinary bladder
m. Uterine horn
n. Vagina
o. Cervix
p. Uterus

So that’s how you tell the difference.

Male

Female

Learning to learn Determining a pet’s sex identifies the parts of male and female rodents’ reproductive systems.
Talk it Over

Share with your helper
- What parts of the systems were new words to you?
- How did you determine the names of the parts?

Tell what's important
Why is learning how to tell the sex of your pets important?

Explore what you learned
Why are some pets neutered or spayed?

Imagine what's next
What can you do to help solve the pet population explosion problem?

<table>
<thead>
<tr>
<th>Mouse</th>
<th>Hamster</th>
<th>Rat</th>
<th>Cavy</th>
<th>Gerbil</th>
<th>Canary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age at Puberty (days)</td>
<td>35</td>
<td>45-60</td>
<td>45-75</td>
<td>45-75</td>
<td>63-84</td>
</tr>
<tr>
<td>Estrous Cycle (days)</td>
<td>4-5</td>
<td>4</td>
<td>4-5</td>
<td>14-16</td>
<td>4-6</td>
</tr>
<tr>
<td>Gestation Period (days)</td>
<td>20</td>
<td>16</td>
<td>21-23</td>
<td>65-72</td>
<td>24-26</td>
</tr>
<tr>
<td>Average Litter Size</td>
<td>6-9</td>
<td>5-7</td>
<td>6-10</td>
<td>3-4</td>
<td>3-6</td>
</tr>
<tr>
<td>Young per Year</td>
<td>50-100</td>
<td>20-50</td>
<td>50-100</td>
<td>12-18</td>
<td>18</td>
</tr>
</tbody>
</table>

Reproduction Word Find
Reproduction Word Bank
Breed
Conceive
Eggs
Estrous Cycle
Estrus
Fertilize
Fetus
Pregnancy
Gestation
Labor
Ovulation
Pregnancy
Semen
Sperm
Uterus

Male & Female
Male hamsters show an elongated scrotum beyond the anal opening. The distance between the anal and genital openings is almost twice that of the female mouse. A male's genital opening is round. A light pressure on the hamster's belly will cause the penis to show.
**Introduction**

Create a storyboard about taking care of newborn animals. Use the following outline to create one of your own. Use as many description books as you need.

- **Storyboard describes a story in writing and drawing scenes by scene or picture by picture.** This helps you, the director, from missing important information or photographic shots.

**Body**

(Information we want viewers to know about the care of newborn pets)

(Why we should take care of our newborn pets. Show at least two reasons.)

- **Conclusion**

Show the results of properly caring for your new born pet.

**Do the Activity**

Maybe you have taken care of a younger brother or sister, baby sit for a neighbor or taken care of someone’s pet while they were away. Being responsible for someone else’s well being is a serious responsibility. Preparing and planning ahead will make taking care of newborn animals easier.

**Special Care**

- **Life Skill:**
  - Planning and organizing
  - Taking care of newborn animals
  - Patience

- **Pet Project Skill:**
  - Takes care of pets
  - Follows a plan for caring for a new pet

- **Show of Success:**
  - Follows a plan for caring for a new pet

This activity will help me take care even better.
4. **Description:**

5. **Description:**

---

**Talk it Over**

**Share with your helper**
- What does your story tell?
- How does the story tell someone how to care for newborns?
- How did you come up with your story?

**Tell what's important**
Why is it important to have a plan when caring for newborn animals?

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**Explore what you learned**
Why is it important to be prepared for responsibilities?

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**Imagine what's next**
Think about a time you had to be responsible for someone else. How did you prepare for that responsibility?

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**Pet Facts**

**Annual Checkups**
Annual checkups are recommended for all pets including fish and birds. A veterinarian can help cure nutritional diseases, perform complete physical examinations and correct noninfectious problems.

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**More Challenges**

1. Contact your local animal control officer or humane society. Find out how many unwanted litters of animals are brought to the Humane Society every year. Write a letter to the editor of your local newspaper encouraging people to have their pets spayed or neutered or to simply not breed their pets. Be sure to include in your letter the facts given to you by the Humane Society.