For more on photography.....
Look for other guides in this series.

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BOOK 1: PHOTOGRAPHY BASICS

Equipment
- First Photo Shoot
- Keep it Steady, Keep it Level

Lighting
- Light Makes a Difference
- Fun with Shadows
- Flash for More Light

Composition
- What Do You See?
- Photograph With Your Feet
- What’s the Point?
- Bird’s Eye (or Bug’s Eye) View
- Hat Tricks and Magic
- The Art of Taking a Selfie

Skill Building
- Taking Great Photographs
- Telling a Story
- Black and White
- You be the Judge

BOOK 3: MASTERING PHOTOGRAPHY

Equipment
- You Take Control - The Mode Dial
- What’s in Focus?

Lighting
- Low Light Challenges
- You Take Control - Smartphone
- Exposure Tips
- Shooting Silhouettes

Composition
- Through the Lens
- Harmony Or Discord?
- Still Life Photography
- Studio Portraits at Home

Skill Building
- Testing Your Skills
- Freeze the Moment
- How Did They Do That?
- Create a Joiner!

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Cover Photo: Olivia Carlton

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NOTES TO THE PROJECT HELPER

This 4-H project book is designed for youth to explore and complete under the guidance of a Project Helper. This can be a parent, relative, knowledgeable adult, project leader or family friend. The duties of this individual begin with helping the child create and carry out a project plan. This is followed by helping the child Focus on each activity in his/her project plan, providing Support and Feedback for the learning taking place, and conducting Debriefing sessions to determine what was done well, what could have been done differently, and where to go from here.

The information and activities contained in this book are arranged in a unique experiential fashion (see model). In this way, youth are introduced to a particular practice, idea or piece of information through an opening Photo Shoot (1) Experience. Following this, youth take the opportunity to (2) Share what they did with their Project Helper and (3) Process the experience through a series of questions allowing the learner to (4) Generalize and (5) Apply the knowledge and skills gained. Project Helpers also provide encouragement for the learner to extend the experience by taking on one of the Challenge Yourself activities in each activity section.

Project Helper Expectations

- Review the Learner Outcomes (Photography Skill, Life Skill, Educational Standard and Success Indicator) on the lower left-hand side of each activity to understand the learning taking place. Each activity in this book is tied to a specific National Education Standard. See the inside back cover for a summary of these standards along with the goals and outcomes for this project.

- Become familiar with the Background sections and Photo Shoot activities contained in this book. The background information is intended to enlighten the Project Helper as much as the learner. Stay ahead of the learner by trying out activities beforehand.

- Begin the project by helping the learner establish his/her plan for the project. This is accomplished by reviewing and completing pages 4-7.

- Conduct a debriefing session allowing the learner to answerReview questions and share results. This will improve their understanding about what was learned for an experiential perspective and the particular life skill and photography skill that were practices.

- Encourage use of a photo journal or scrapbook to help the learner celebrate what was done well, and to see what could have been done differently. Allow them to become better at assessing their own work.

- Date and initial the activities that have been competed on page 4 of their project plan.
Welcome to Next Level Photography, Book 2!

This is an intermediate-level book for a serious study of photography, and it is recommended for youth in grades 5-12. Younger students may need help from a committed adult. It can be completed as a stand-alone project or in connection with another 4-H area of interest. Activities cover four main areas related to photography: Equipment, Lighting, Composition and Skill Building. Having access to a camera (phone, DSLR) is essential, as well as deciding how and where to store the photos you will take during the project.

Check your county’s 4-H project guidelines (if any) for completion requirements in addition to the ones below, especially if you plan to prepare an exhibit for the fair. This project may be repeated if you select activities that were not satisfactorily completed or attempted in previous years.

YOUR PROJECT GUIDELINES

STEP 1: Explore each of the four Project Areas (Equipment, Lighting, Composition, Skill Building). In each area, complete the Photo Shoot activities (at least 2) of your choice along with the Talking it Over activity.

STEP 2: Take part in at least two Learning Experiences.

STEP 3: Become involved in at least two Leadership/Citizenship activities.

STEP 4: Take part in a Project Review.

OPTIONAL: The Challenge Yourself activities are optional.
INTRODUCTION

Like a paintbrush or a pottery wheel, a camera is a tool used for creating art. And like any other art form, you need to know how to use the tool in order to make a great image. Wonderful photographs don’t just happen by magic. A photographer must rely on his ability to compose an image in the viewfinder that is worth capturing and then apply his skill to ensure that the image is photographed faithfully.

What makes photography so unique is the versatility of the medium itself. In *Next Level Photography*, you will learn all sorts of methods and techniques to take your photographs to a whole new level. You will explore how to use light effectively in order to create a certain mood. You will discover how to freeze a moving object in mid-air, and how to make moving objects blur across the scene. There are special filters you can attach to your camera that will allow you to shoot multiple images in a single frame, change the overall color of a scene and make bright lights look like shining stars. You will even learn how to make your own special effects filters from basic household items! Other topics that you will explore in *Next Level Photography* are how to select the best lens for certain kinds of photos and how to shoot panoramas with your smartphone or DSLR.
But there’s more to creating great images than simply adding special effects filters and manipulating images with special camera settings. How you compose the image is equally as important. You will learn how composition often makes the difference between a great image and one that is just so-so. There are special compositional techniques that artists utilize in order to create powerful images such as the Rule of Thirds and the Golden Rectangle. You will also learn about negative space and how you can use it to your advantage to create awesome photos!

So grab your camera and get ready to embark on an exciting photo journey!
SELECTING A LENS

How close up? How far away? Interchangeable lenses will get you closer to your subject or help you include more in the frame, expanding your creative choices.

PHOTO SHOOT

Practice with your camera. If you are able to attach different lenses, this is a bonus!

1. Position yourself in front of a scene you would like to photograph. Using the equipment/camera that you have, experiment with zooming in and out. Compare results.

2. If you have a wide-angle lens, take a group shot either candid or posed. A wide view includes details that tell a story or put people into context.

3. If you have a telephoto lens, take close-ups of three or four details. Some large telephoto lenses need the support of a tripod.

18~70mm Zoom Lens

18~270mm Zoom Lens
BACKGROUND

Have you ever wanted to take a good photo of the action at a soccer game even though your seat is up in the stands? You can if you have the right kind of lens. Lenses come in different focal lengths, measured in millimeters (mm). The longer the lens (larger number), the greater the magnification you will get.

- **Prime lenses** are a fixed focal length. This means that if you chose a 35 mm lens, you cannot zoom in and out. You will have to move your body to get wide shots and close ups.
- **Zoom lenses** (28 mm - 200 mm) are often built-in on many DSLR cameras; just rotate the lens!
- Lenses in the 50 mm range are referred to as **normal lenses**. They include about as much as your eyes see.
- **Wide-angle lenses** (28mm) capture a lot of scene when you can’t stand far away, like when you are in a room.
- Telephoto lenses (80 mm-300 mm) gets you close to the action when you are far away.
- **Fisheye lenses** (18 mm and smaller), gets you a wide angle and interesting distortions.
- **Macro lenses** allow you to focus within inches of objects that are nearby, like a seashell.

**CHALLENGE YOURSELF AS A PHOTOGRAPHER!**

★ If you do not have special lenses, talk to a photographer or a friend who does. Get permission to go along with them on a photo shoot and take notes about when and why they change lenses.

**iPhone camera**

Smartphone cameras have come a long way! Now you can take high quality, high-resolution images that you can improve on your phone without exporting to software apps. Smartphone cameras let you zoom in by pinching the screen. But since the lens doesn’t really change, you are really “cropping” the picture or closing in on what you want to include. When using a cell phone, if you are able, just move in closer to what you want to photograph. The photo quality will be better than zooming in. You can also buy accessories such as lens attachments that allow you to take macro shots, telephoto shots and super wide-angle/fisheye shots.
A variety of smartphone lens attachments, including a microscope!

Credit: Scott Wittenburg
A shot with a fisheye lens!

A fisheye lens can skew the perspective.

A fisheye lens can distort objects. What is distorted in this photo?
Scene shot with various size lenses

18 mm

35 mm

50 mm
# SUMMARY OF LEARNING OUTCOMES


<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>PROJECT SKILL</th>
<th>LIFE SKILL</th>
<th>EDUCATIONAL STANDARD</th>
<th>SUCCESS INDICATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equipment</strong></td>
<td></td>
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</tr>
<tr>
<td>1 Selecting a Lens</td>
<td>Get to know your camera’s capabilities using zoom</td>
<td>Mastering technology</td>
<td>Anchor Standard #2 Organize and develop artistic ideas and work. VA:Cr2.1.5a Experiment and develop skills in multiple art-making techniques and approaches through practice.</td>
<td>Creates high-quality photos that demonstrate appropriate use of zooming</td>
</tr>
<tr>
<td>2 Special Effects</td>
<td>Practice using different lens filters</td>
<td>Mastering technology</td>
<td>Anchor Standard #2: Organize and develop artistic ideas and work. VACr2.2.3a Demonstrate an understanding of the safe and proficient use of materials, tools, and equipment.</td>
<td>Experiment with several different techniques/tools to create 2-3 high quality photos with special effects</td>
</tr>
<tr>
<td><strong>Lighting</strong></td>
<td></td>
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</tr>
<tr>
<td>3 Lighting the Mood</td>
<td>Practice using light to portray a specific mood</td>
<td>Communicating</td>
<td>Anchor Standard #7: Receive and analyze artistic work. VA:Re.7.2.4a: Analyze components in visual imagery that convey messages.</td>
<td>Identify how the lighting affects the mood of several different photos</td>
</tr>
<tr>
<td>4 Reflections</td>
<td>Practice taking photos of reflections</td>
<td>Practicing creativity</td>
<td>Anchor Standard #8: Interpret intent and meaning in artistic work. VA:Re8.1.4a Interpret art by referring to contextual information and analyzing relevant subject matter, characteristic of form and use of media.</td>
<td>Composes photos using reflections that demonstrate a creative way to view the world</td>
</tr>
<tr>
<td>5 Out in the Light</td>
<td>Practice taking photos without the flash feature on your camera</td>
<td>Decision making</td>
<td>Anchor Standard #1: Generate and conceptualize artistic ideas and work. VA:Cr1.1.4a Brainstorm multiple approaches to a creative art or design problem (no flash photography) through practice.</td>
<td>Chooses appropriate lighting and content to create high-quality photos without using the flash</td>
</tr>
<tr>
<td><strong>Composition</strong></td>
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<tr>
<td>6 The Rule of Thirds</td>
<td>Practice using of the Rule of Thirds</td>
<td>Decision making</td>
<td>Anchor Standard #8: Interpret intent and meaning in artistic work. VARE9.1.6a: Develop and apply relevant criteria to evaluate a work of art</td>
<td>Creates photos that demonstrate the use of the Rule of Thirds</td>
</tr>
<tr>
<td>7 The Golden Photos</td>
<td>Practice using the Rules of the Golden Triangle and the Golden Rectangle</td>
<td>Thinking critically</td>
<td>Anchor Standard #8: Interpret intent and meaning in artistic work. VARE9.1.6a: Develop and apply relevant criteria to evaluate a work of art</td>
<td>Demonstrates the use of the Golden Triangle and the Golden Rectangle in photos</td>
</tr>
<tr>
<td>8 Different Viewpoints</td>
<td>Practice taking photos from different points of view/perspective</td>
<td>Decision making</td>
<td>Anchor Standard #10: Synthesize and relate knowledge and personal experiences to make art. VA:Cn10.1.3a: Develop a work of art based on observations of surroundings.</td>
<td>Creates a series of photos from unusual and different points of view from a local monument, recognizable landmark or other familiar subject in your community</td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>PROJECT SKILL</td>
<td>LIFE SKILL</td>
<td>EDUCATIONAL STANDARD</td>
<td>SUCCESS INDICATOR</td>
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<tr>
<td>9</td>
<td>Practice creating photos with interesting negative space</td>
<td>Practicing creativity</td>
<td>Anchor Standard 3: Refine and complete artistic work. VA:Cr3.1.6a Reflect on whether personal artwork conveys the intended meaning and revise accordingly.</td>
<td>Composes at least one photo where the space (not the focal point) tells an “open-ended” story</td>
</tr>
<tr>
<td>10</td>
<td>Practice capturing unposed, candid shots of a subject or event</td>
<td>Planning and organizing</td>
<td>Anchor Standard #2: Organize and develop artistic ideas and work. VA:Cr2.3.7a Apply visual organizational strategies to design and produce a work of art, design or media that clearly communicates information or ideas.</td>
<td>Captures a special moment through a candid, unposed photo of a person or event</td>
</tr>
</tbody>
</table>

**Skill Building**

<table>
<thead>
<tr>
<th>11</th>
<th>Practices taking photos of “bits and pieces” of ordinary objects to create a work of art</th>
<th>Practicing creativity</th>
<th>Anchor Standard #1: Generate and conceptualize artistic ideas and work. VA:CR1.25a: Identify and demonstrate diverse methods of artistic investigation to choose an approach for beginning a work of art.</th>
<th>Creates an abstract photo with ordinary subject matter</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Practice using a camera to create a panorama</td>
<td>Mastering technology</td>
<td>Anchor standard #2: Organize and develop artistic ideas and work. VA:Cr2.1.5a: Experiment and develop skills in multiple art-making techniques and approaches through practice.</td>
<td>Completes a wide, unbroken panoramic view of a subject</td>
</tr>
<tr>
<td>13</td>
<td>Uses color to create photos that are cool, warm, monochromatic, contrasting and/or complementary</td>
<td>Practicing creativity</td>
<td>Anchor Standard #7: Perceive and analyze artistic work. VA:Re.7.2.4a: Analyze components in visual imagery that convey messages.</td>
<td>Demonstrates understanding of the use of color to create photos that grab attention</td>
</tr>
<tr>
<td>14</td>
<td>Practice taking photos with a specific purpose in mind to teach, instruct or sell a product or service</td>
<td>Visualizing information</td>
<td>Anchor standard #7 Perceive and analyze artistic work. VA:Re.7.2.6a: Analyze ways that visual components suggested by images influence ideas, emotions and actions.</td>
<td>Creates useful photographs designed to teach, instruct or sell an item or services</td>
</tr>
</tbody>
</table>

**Exhibiting Your Work**

| Exhibiting Your Work | Evaluates photos that represent body of work | Making decisions | Anchor Standard #4: Select, analyze and interpret artistic work for presentation. VA:Pr4.1.3a: Investigate and discuss possibilities and limitations of spaces, including electronic, for exhibiting artwork. | Creates online photo portfolio for sharing, deciding which photos are the best representation of work |