

Notes for parents:

Thank you for downloading our photography lessons. We love photography and hope your kids will too. The goal of these first five lessons is to quickly improve your children's pictures without getting technical. We will not be talking about shutter speed, aperture or ISO. For now just set your child's camera to AUTO or Program(P) mode and turn their flash off. *See below for more detailed camera settings.*

You can complete these lessons at any pace that suits your child but we recommend only doing 1 or 2 per week. This will allow your child enough time to complete the photo assignments.

Let your child explore their creativity first without too many limitations.

Camera settings

Here is a list of camera settings that will help your child get the best picture quality from their camera.

- Auto exposure mode (Use AUTO or Program(P))
- Auto focus
- Highest image quality setting (use JPEG Fine at the highest available megapixel setting)
- Turn flash off (AUTO mode may not allow you to turn off the flash – Use Program mode if this is the case)
- Turn on image stabilization

*If you are looking for more fun things to learn with your child please visit
<http://www.cleverhomeschool.com>*

Thanks again, and have a great time teaching your child to take amazing pictures.

Jason and Valerie Huskey

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Lesson #1 – Learn About the Camera

Introduction



Taking pictures is so much fun. Part of that fun is learning new things. These first five lessons will not get into technical terms much. Instead I want to show you a few things that will improve your pictures quickly no matter what camera you have.

Each of these lessons will end with a photo assignment. Please do your best to complete these. You can read all you want about photography but you will never truly understand it if you don't practice.

Don't worry if your pictures are not impressive at first. As we build on your knowledge throughout this course you should notice your pictures getting better and better. At the end of the course, compare your first photos with your last photos. Hopefully you will see a big improvement.

Taking pictures should not be about the gear you have. After saying that, there are a few things you should know about cameras before starting. This first lesson will introduce you to a few basics so that you know what I'm talking about in later lessons.

Types of cameras

There are four basic types of cameras on the market today:

1. Compact digital camera – Many compact cameras do not allow the user to make decisions about their photos. These cameras will use an onboard computer to determine the best settings for a scene.
2. Phone camera – Cameras in phones used to be very basic but they have come a long way. Most of the settings are determined automatically but you can download apps that will give you more control.
3. Super zoom camera – This type of camera is the middle link between a compact camera and a DSLR. The photographer usually can take full creative control. It will have automatic settings but you can override them with your own settings. The built-in lens will go from wide angle to superzoom.



4. DSLR camera – This stands for Digital Single Lens Reflex. When looking through the viewfinder you can see exactly what will be in the picture. DSLR's give the highest quality images but are also the most expensive. You will have full control of all settings and you can also change lenses.



I love shooting with my DSLR because it is so fast and the quality is much higher. But you don't need an expensive camera to get started. Many of the world's most famous pictures have been taken with cameras of low quality. The creative decisions are always up to the photographer.

Parts of a camera

Here are a few parts you need to know for the next lessons:

- **Lens** – Allows light to enter the front of your camera. This light will eventually be recorded as a picture.
- **Shutter button** – The button you press to take the picture
- **LCD Screen** – The screen on the back of the camera used for viewing your pictures.
- **Optical viewfinder** – The small hole you look through to compose your picture.



Photo modes



Your camera may have a mode dial like the one shown to the left. These first five lessons do not explain exposure. So for now use the “Auto” or the “Program” mode. This will tell the camera to make the exposure decisions for you. Just concentrate on being creative.

File types

A digital picture can be saved in different file types. The most popular type is the JPEG. A JPEG is a great combination of high quality and small file size. As a beginner you should use the highest quality JPEG setting on your camera. If your file size is set too low, your pictures will look fuzzy.

PNG files are similar to JPEGs. TIFF and RAW files are lossless formats. This means there is no loss in quality from the original image. TIFF and RAW files will take up 10 times more space than JPEGs and PNGs.


Popular file types

- JPEG
- PNG
- TIFF
- RAW

Turn off your flash

Please turn off your flash for these first five lessons. The built in flash on your camera will usually make your pictures look terrible. You will see:

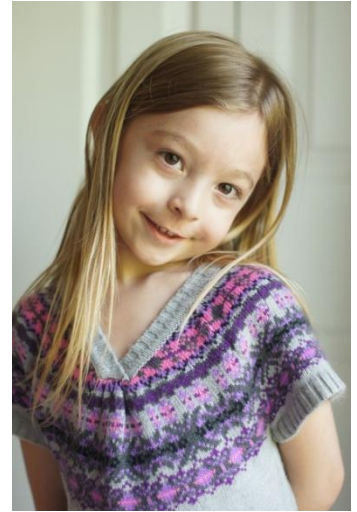
- dark shadows behind your subject
- flattened facial features
- red eye
- a strange mix of light color.

 In addition to all the problems above, on-camera flash also blinds and annoys people. There are better ways to do flash and we will talk about that in later lessons. Look for a lightning bolt icon on your camera to turn off the flash.

Flash on



Flash off



Note: Your camera may not allow you to turn off flash in AUTO mode. If this is the case switch to Program mode (P on the mode dial).

Lock your focus

Most cameras focus when you press the shutter button halfway down. Your picture may look blurry if you move the camera or your subject moves after focusing. Remember to refocus if your camera or the subject has moved.

Your camera is probably set to focus on the middle square shown in your viewfinder. To focus on a person that is not in the middle you should:

1. Point the middle square at your subject
2. Focus by holding the shutter button halfway down
3. Move the camera back to where you want it while still holding the shutter button halfway down.
4. Take the picture

Review

1. Do your best to complete all the photo assignments
2. Learn the basic parts of a camera
3. Set your mode dial to Program(P) or AUTO
4. Turn off your flash
5. Lock your focus

Photo Assignment #1

Take a picture of a toy or other non-living object

Things to remember:

- Pick an object you can photograph again after going through all five lessons. We will compare your first picture to your last picture at the end of this course.
- Save your photo in a safe place so you can view it again later.
- Use Program(P) or AUTO mode
- Turn off your flash
- Lock your focus
- Plan your photo below

Camera Settings:

Focus: Auto

Exposure: Auto

Flash: off

Plan your photo:

Subject: _____

Location: _____

Time of Day: _____

Lesson #2 - Get in close to your subjects

Getting close

Let's pretend you are taking a picture of your little brother or sister. Your first reaction might be to get their whole body in the picture. Many times there is clutter in the background that takes away from the subject. There might be toys on the floor or distracting lines or textures on the walls. If you are outside you might notice a tree or sign post that seems to sprout from your subjects head. Instead, walk in closer or even use the zoom button to make their head and shoulders the only things in the picture.



"TYPICAL RILEY POSE" BY PEASAP IS LICENSED UNDER CC BY 2.0

Eyes show a lot of emotion. To add a bit of mystery to your photo you can go even closer and make their eyes the only thing in the frame. Perfect focus is hard to get when shooting this close. We'll talk about focus next.



"EYE SEE YOU" BY PEASAP IS LICENSED UNDER CC BY 2.0

If you are having trouble getting close enough you can try switching to a longer lens or using the built in zoom in your camera. This will have the additional benefit of getting rid of distracting backgrounds.

Focus is important

Focus is always an important technical issue, but when you are getting in close you have to pay even more attention. If your subject is a person, make sure their eyes are in focus. When we are looking at a picture of a person we are automatically drawn to their eyes. Even animals do this. If you have a dog or cat you might notice that your pet will look directly into your eyes. I've always wondered how animals know to do this.

For this lesson your camera should be set to autofocus. Most cameras will focus on the object in the middle of the frame. Your camera may even show a little box on the screen that

indicates where it will be focusing. To focus you will need to hold the shutter button halfway down. Watch as your subject becomes clear.

Out of Focus



"IMPRESSION" BY JENNY DOWNING IS LICENSED UNDER CC BY 2.0

In Focus



"DUSTY" BY JENNY DOWNING IS LICENSED UNDER CC BY 2.0

Most lenses will only focus when you are 1 or 2 feet away. If your camera is not focusing, move back slowly until it does. To find out how close your camera or lens can focus you can do three things.

1. Read the owner's manual if you have it.
2. Look at the lens itself. Some lenses will have the minimum focus distance written on them somewhere.
3. Find a toy or other non-moving object and position your lens one inch away from it. Slowly pull back while trying to focus on the object. Make a note of the distance where the camera actually focuses.



"IN GOD WE TRUST" BY KEVIN DOOLEY LICENSED UNDER CC BY 2.0

When taking pictures of very small things like flowers and insects it may be almost impossible to get close enough. Macro mode is the solution. If your camera has a macro mode try using it to take a picture of a quarter. This will allow you to focus at shorter distances.

Get rid of distracting backgrounds

Have you ever seen a picture of someone who seemed to have a tree or light pole growing out of their head? When taking pictures it is easy to only think about your subject. You also need to notice



the background. One step to the left or right will easily get rid of the tree problem. You must also be on the lookout for cluttered or distracting backgrounds. If the background is cluttered just move in closer to your subject.

If you are taking pictures of someone and they do not seem comfortable with you being so close, step back a little bit. Always use courtesy when photographing people.

Make the eyes pop!

Take a look at this monkey. Where do your eyes come to rest in this photo? Most likely you end up staring into his eyes. Have you ever seen a picture from a professional photographer where the eyes just seem to glow? To get results like this you must know where the light is coming from. In this picture you can tell the light is coming from the top right by finding the reflection in the monkey's eyes.



"BABY MONKEY IN A BASKET" BY MOHD KHOMAINI MOHD SIDIK IS LICENSED UNDER CC BY 2.0

Here's a handy tip to find the light. Carry a marble in your camera bag. When you arrive at your shooting location put the marble in your hand just like an eye socket. Then slowly turn your body around while watching the marble. Stop when you see the reflection of light in the marble. Remember this angle. If you shoot from this angle your subject will have beautiful catch lights in their eyes.

Review

1. Get close to your subject – Fill the frame
2. Remember to focus on the most important part of the picture
3. Pay attention to the background

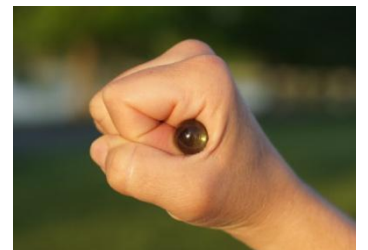


Photo Assignment #2

Take a close-up picture of a person, a pet, or a toy.

Things to remember:

- Fill the frame with your subject
- Focus on the eyes or the most important part of your subject
- Pay attention to the background
- Children and babies are difficult because they are always moving. If you are having trouble, try taking a picture of a toy instead.
- Plan your photo below

Camera Settings:

Focus: Auto

Exposure: Auto

Flash: off

Plan your photo:

Subject: _____

Location: _____

Time of Day: _____

Lesson #3 – Holding the Camera Right

Camera shake

Have you ever thought your camera has a problem focusing? You set up a shot and it looks perfectly focused in the viewfinder. When you check the image on the camera screen your subject is slightly blurry. This is usually not a problem with the camera or the lens. The more likely problem is the way you are holding the camera.

It may not seem like that big of a deal but more pictures are ruined by camera shake than anything else. It becomes even harder to hold the camera steady when you are shooting in low light. To keep pictures from being blurry you need to practice holding your camera correctly.

The pictures above show what camera shake looks like. It means the difference between a sharp photo and a photo that could have been better. If you know how to properly hold your camera you will have much sharper images.

How to hold a camera

Here is the proper way to hold a camera:

1. Wrap your right hand around the right side with your pointer finger over the shutter button.
2. Hold your left hand flat with your palm up. Support the bottom of the camera with your left hand.
3. If you have a large lens, wrap your left hand fingers around it from below.
4. Tuck your elbows into your ribs.
5. Look through the viewfinder to create more stability.

Camera Shake



No Camera Shake



Correct



What is wrong with these pictures?



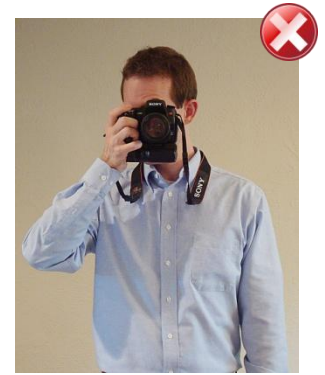
No support on the bottom of camera -
Elbows not tucked in



Not looking through the viewfinder -
Elbows not tucked in



No support on the bottom of camera



Not using two hands -
Very little stability here

Stand up straight

Don't lean forward or backward. If you need to get closer just take a step forward or zoom your lens in. You should also place one foot a step in front of the other for added stability.

Breathing is important

Right before taking a shot breathe in and let it out. Slowly press the shutter button at the bottom of that breath. Your body has the least movement right after exhaling.

Shooting in the vertical position

Correct



Wrong



When taking pictures in the vertical position you have to rotate the camera. Always rotate so your right hand goes on top instead of on bottom. It's very awkward and unstable to have your right hand on bottom.

Straight Horizon Lines

Now that you have learned how to properly hold your camera we need to talk about holding it straight. When taking pictures of beautiful landscape scenes your picture can be ruined easily by having a horizon that does not appear level.

When you look at the first picture below it should look strange. We are used to viewing level horizons in real life but this picture is at an angle. As you are lining up your shot, make sure you pay attention to the horizon. If it's not level, tilt your camera to correct it.



Review

1. Always practice holding your camera correctly to reduce blur.
2. Stand up straight.
3. Press the shutter button at the bottom of your breath.
4. Hold the camera straight, especially when taking pictures of horizons.

Photo Assignment #3

*Take a picture of a level horizon
while holding your camera correctly*

Things to remember:

- Practice holding your camera correctly
- Stand up straight
- Press the shutter button at the bottom of your breath
- Make sure the horizon is level
- Plan your photo below

Camera Settings:

Focus: Auto

Exposure: Auto

Flash: off

Plan your photo:

Subject: _____

Location: _____

Time of Day: _____

Lesson #4 – Find a New Angle

Are your pictures boring?

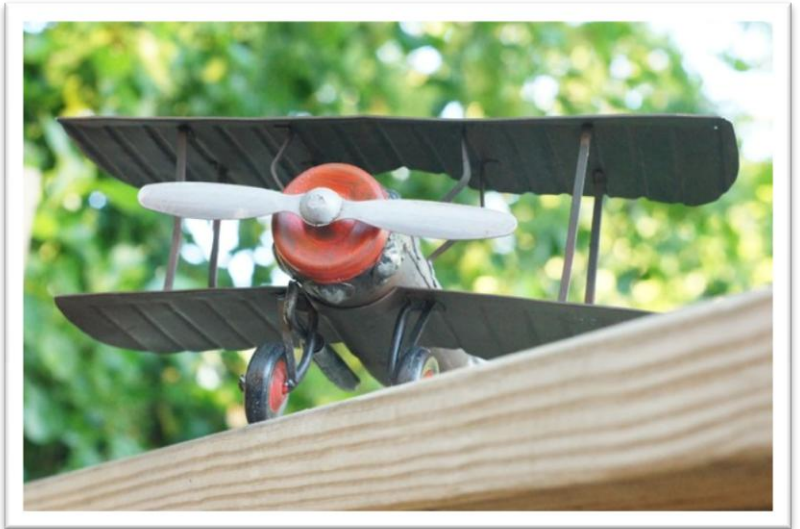
If you have been taking pictures for very long you may start noticing that they all look the same. This can happen when you always use the same poses or angles. To fix this problem take photos of the same subject at many different angles.

The picture of the airplane to the right would be my first instinct when I see this little airplane. But it may not be the best angle, the best lighting, or the most interesting picture. So let's keep shooting and see what happens.



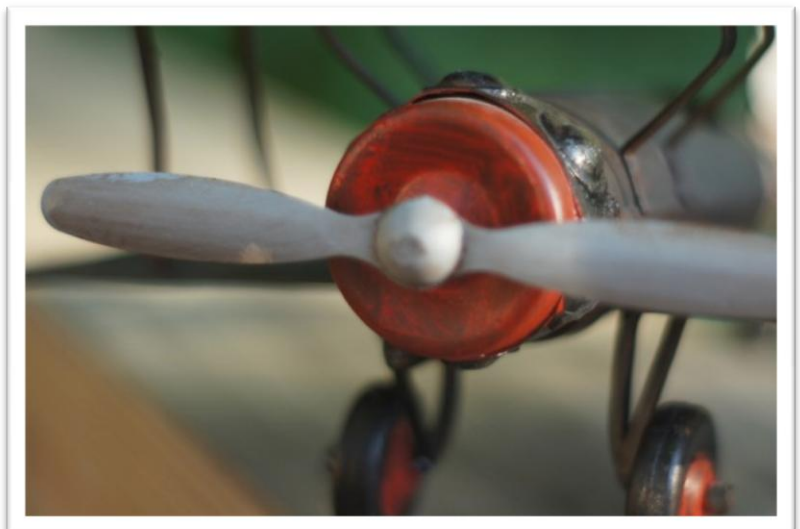
Get on the floor

You may need to lay flat on your back and look up to find an interesting shot. Professional photographers are always willing to do something silly to get the best shot. Don't worry if you look weird doing it. Some of the best pictures happen when you try to shoot a subject in a way it's never been shot before.



Zoom in

You don't always have to show your whole subject. As we learned in lesson number two, get in close to your subject. In this photo we only see the engine, propeller, and wheels. The wings are not included and that is perfectly fine. This is still an interesting picture even without those other details.



Look down

Get on top of your subject and shoot down. Notice the shadow from the plane's tail. This is a detail we can't see from other angles. When shooting from this position try to get directly over the subject and shoot straight down.



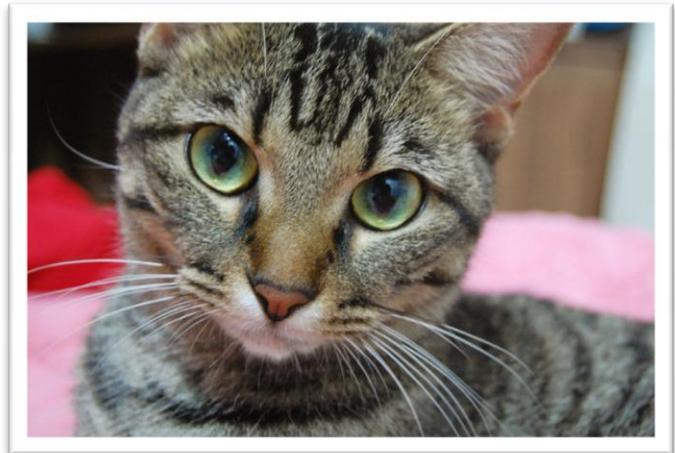
Fun photo to try: Get some friends together and have them lay on the floor with their heads touching each other. Put your camera directly over them and shoot down.

Shoot at eye level

When taking pictures of people or animals you should be on their eye level. When we are talking to someone we tend to look in their eyes. Even animals do this. If you have a pet dog or cat go talk to them and see if they are looking right back into your eyes.



"CAT" BY ANAA YOO LICENSED UNDER CC BY-ND 2.0



"CAT" BY ANAA YOO LICENSED UNDER CC BY-ND 2.0

Take a look at the two pictures above. The cat is not making eye contact in the left picture but he is on the right. The picture on the right allows us to make friends with the cat. It is much more personal and meaningful.

Which is your favorite picture of the little airplane?



My favorite picture of this group is the one in the center with the sun peeking out over the wing. I would not have gotten this shot if I only took one picture and stopped. Always look for a new angle in your pictures.

Review

1. Try lots of different angles of the same subject
2. Don't be afraid of looking silly when finding creative shots
3. Try shooting at eye level when you are taking pictures of people or animals
4. Review your pictures later and pick your favorite shots

Photo Assignment #4

Pick one subject and take pictures from at least 5 different angles

Things to remember:

- Choose a toy or other non-living object (Don't use your little brother for these photos. It will be too hard for him to stay still.)
- Do not move your object between shots. Only move your camera.
- When finished, choose your favorite angle and print it out to display on your wall.
- Plan your photo below

Camera Settings:

Focus: Auto

Exposure: Auto

Flash: off

Plan your photo:

Subject: _____

Location: _____

Time of Day: _____

Lesson #5 – The Golden Hour

What is the golden hour?

The golden hour is one of the best times of day to shoot pictures. It actually comes around two times every day. It happens right after sunrise in the morning and right before sunset in the evening.

The quality of light at this time is amazing. It is soft and golden. Skin tones are warmed up giving people a tanned look while shadows are long and diffused. It is quite easy to take great photos during this time of day.



"HIDING" BY GARRETT CHARLES IS LICENSED UNDER CC BY 2.0

Examples of golden hour photography



Take a look at this happy couple. What makes these pictures so special is the quality of light. You can see the sun highlighting their hair from behind with that soft golden glow.

Professional photographers add a hairlight all the time in their studios to get a similar effect. You can do it using natural light by putting the sun behind your subject. Compose your shot so that the sun is not in your picture. Otherwise it will look too bright and washed out.



Use a tripod

As the sun gets lower on the horizon the available light will fade out. Your camera will try to compensate for the lower light. Most likely you will start to see blurry pictures. To fix this problem you need to get the camera out of your hands.

Set the camera on a tripod, a table, a rock, or any place stable. Use your camera's "self timer" instead of pressing the shutter button. This will allow you to keep shooting as the light gets dim. Most self timer buttons use the logo to the right.



What is soft light?

Soft light is characterized by even tones. This means the light is spread out evenly on surfaces which creates less contrast. Shadows are not harsh; instead they blend in with your subject to add just the right amount of interest to your photo. If you were to take a black and white picture in soft light there would be many variations of gray colors as shown in the graphic below.



Soft light happens during the golden hour but it also happens anytime on an overcast day. Don't put your camera away just because the clouds roll in. This is often the best time to shoot.

What is hard light?

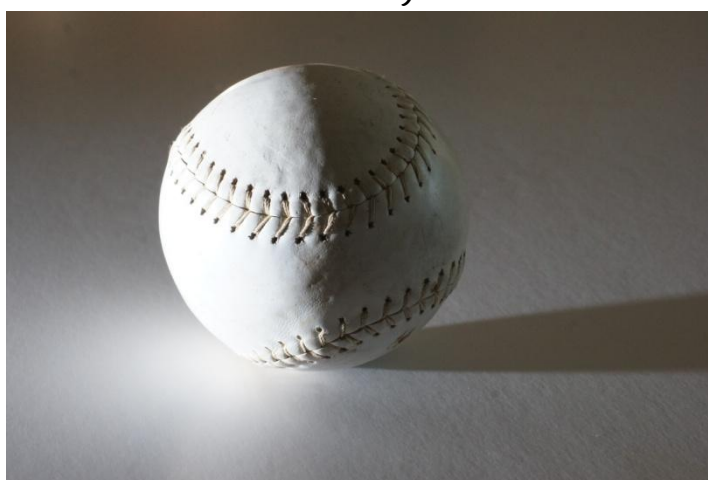
Hard light creates high contrast scenes. This means that shadows will be very dark and reflections of light will be very bright. Hard light happens during midday when the sun is shining down. With the sun directly overhead, people will have ugly dark shadows in their eye sockets and under their nose. One good thing about hard light is that it can make colors more vibrant. The sky will seem more blue and the leaves a deeper green. If you were taking black and white pictures under hard light there would be mainly whites and blacks as shown in the graphic below. There would not be much gray in the picture.



Soft Light



Hard Light



Time to practice

Try taking pictures of the same thing on a sunny day at noon and also during the golden hour before sunset. When you compare them you should immediately notice how much better your pictures are during the golden hour.

Do you take pictures at noon?

Many professional photographers refuse to take pictures on a sunny day at noon. This is because when the sun is shining directly down it creates hard light. Hard light is not very good for photos of people.

When you are just starting out in photography I would recommend that you do not shoot outdoors during midday to avoid a lot of frustration. One exception to this rule happens on cloudy days. If the sky is overcast then you can shoot all day long and get great photos.



"STONE WISHING WELL" BY DARRON BIRGENHEIER LICENSED UNDER CC BY -SA 2.0

Tips

When you are just starting out it will be frustrating taking pictures at noon on a sunny day. Here are a few things that will help:

1. Find some shade to shoot in (Shadows created by buildings are great for this).
2. If you don't have any shade, make it with an umbrella.
3. Get in close to your subjects.
4. Try to find backgrounds that are lit the same as your subject.

Review

1. The golden hour happens 1 hour after sunrise and 1 hour before sunset.
2. If you don't have to squint it's a great time for taking pictures of people.
3. Find soft light when taking pictures of people.
4. Avoid the harsh midday sun.
5. Stabilize your camera with a tripod when the light gets too dim.

Photo Assignment #5

Take a picture during the golden hour

Things to remember:

- The golden hour happens about 1 hour after sunrise and 1 hour before sunset
- Look for soft light
- Avoid the harsh midday sun
- Plan your photo below

Camera Settings:

Focus: Auto

Exposure: Auto

Flash: off

Plan your photo:

Subject: _____

Location: _____

Time of Day: _____

****Bonus Photo Assignment****

*Take a picture of the same object you used
in photo assignment #1*

Things to remember:

- Use all the knowledge and techniques you have learned from this course to take a better picture of the same object from photo assignment #1
- Get in close
- Hold your camera properly
- Try different angles
- Shoot outside during the golden hour
- Compare the two pictures to see how much you have improved
- Plan your photo below

Camera Settings:

Focus: Auto

Exposure: Auto

Flash: off

Plan your photo:

Subject: _____

Location: _____

Time of Day: _____