

30 Quick Tips for Improved Telescope Viewing

Astronomy can be a fascinating hobby. Unfortunately, as I was relearning this there was not much information out there for those starting out. This makes it difficult to really improve and have enjoyable outcomes. But do not worry because these ## downloadable and printable tips have you covered and will take your astronomy hobby to the next level.

Quick Tips and Tricks:

1. **Plan your viewing ahead.** Have sky maps available for you to be able to know exactly where to look in the night sky. There are also several cell phone apps and computer programs available for this. See article on apps and programs for Beginning Astronomers.
2. **Try astronomy with both eyes open.** Observing through your telescope's eyepiece with both eyes open gives an advantage. Telescopes aren't designed to be viewed this way, but by closing one of your eyes, the open eye becomes less effective in seeing objects. This is why the eye doctor blocks one eye but tells you to leave the blocked eye open. It has to do with the brain and the way the eyes are wired and muscle fatigue. The brain continually compares the images it sees with each other. Plus, by closing one eye, you are using muscles that can fatigue and distort your vision.
3. **Allow your telescope to get used to the temperature outside.** It is not only your eyes that need some time to adjust in the darkness. Before viewing anything from your telescope. Make sure that it has sat there on where it is mounted for about 20 minutes or more to allow it to neutralize to the same temperature as the outside ambient air. This way, it will not radiate heat, or condensate which both, can negatively affect how well it can see faint objects in the sky.
4. **Allow time for dark vision.** Remember to allow some time for your eyes to adapt to the darkness. It will take 30 to 45 minutes for your eyes to adjust to the darkness, allowing you to be able to see things in the dark more clearly. After your eyes have adjusted, stay in the dark. Avoid going back to your house to get something as your eyes only need from 5 to 7 minutes to adapt to the light. When you come back outside in the dark after that, your eyes will need another 30 to 45 minutes to adjust again. To learn more about dark vision [click here](#)
5. **Study and practice the art of collimation.** Collimation is the act of ensuring that the eyepiece is aimed at the center of the primary mirror and while this

primary mirror is also aligned at the center of the eyepiece. Consult your telescope's manual for specific instructions on how to achieve this with your telescope. You can learn more about collimation [here](#).

6. **Dress for success.** The fact you are usually out when it is at night and cooler, or even downright cold is common for an astronomer, but also if it is nice weather out the night will cool down. Because you are being inactive and standing or sitting in one spot, I suggest deducting 10 degrees from the predicted low that night. Of course, if you listen to your Mom, you can always peel off a layer or two if you are too warm.
7. **Lower the center of gravity.** Telescopes can tend to be "top-heavy" a slight bump, or brush with an open jacket can send it toppling. You can tie a weight to a wire or string that attaches to the eyepiece tray to successfully lower your center of gravity. About 5 or 10 lbs is sufficient. You can use an old milk jug filled with water, or rocks in a bag as well. If your ground is soft, set up on some boards or flat stones to prevent from sinking into the ground.
8. **Focus your telescope.** Some telescopes come with a cover that has 2 holes in it. You can use this to focus your image. Once your object is found, with the 2 hole cap in place, you adjust your focus until one image appears. Then remove the cover and enjoy your viewing.
9. **Keep your eyepieces under wraps.** The eyepieces that you are not using can be subject to dewing. It is best to keep them in a sealed container while not being used. An old Scooby Doo lunch box, or even just covering them with the caps they came with. I have used old paint spray can lids to sit them in and cover them. That way you can color code your magnifications.
10. **Set up on solid ground,** but wait...concrete, roofing, and Parking lots will radiate this heat back up after the sun has set. Remember that our goal is to observe the faintest light from the night sky. Even a little amount of radiated heat from concrete or houses can affect your ability to see these faint objects. Get a little IR handheld temperature meter like this one I use from Amazon. It will let you know if that concrete is warmer than the air.
11. **Leave your cell phone inside or turned off.** Unless you are using an app within it for your viewing experience. The light from your phone aside from being a source of light pollution can also make it hard for your eyes to adjust to the darkness. To learn more about dark vision [click here](#).

12. **Find a sweet dark spot for your viewing.** Even the best telescopes in the world would be useless in an area with a lot of light pollution. If you live in a city, get as high as possible. Get permission to set up on your rooftop, or ask permission to use a pasture. Watch out for the cow pies!
13. **Know the best time to view the night sky.** The sky is clearest in the winter nights because there is no humidity in the air. During summer nights, there is haze, which blurs the view. The moon's phases can also drastically affect your viewing experience. For example, during a full moon, the moon will be so bright that it will be challenging to see other heavenly objects in the night sky.
14. **Get a red LED flashlight.** This is so that you will still have light when you need it to see your scope or notebook. For example, it may be challenging to set up your telescope on its mounting while in complete darkness. The flashlight should be the color red to help maintain dark vision. Red does not effect on your eyes like blue or white light will. If a red flashlight is not available, you can still use a regular flashlight; just cover it with red cellophane or red paper. To learn more about dark vision click [here](#).
15. **Face south for the best viewing.** The ideal direction to point your telescope is towards the equator (towards the south for those in the northern hemisphere and vice versa for the southern hemisphere) and over grass, or woods. Grass and forest use the suns energy and does not radiate the heat back out that it absorbed during the day. If you have a large city due south, you may need to try viewing toward a different area or try a different location to set up.
16. **Setting up on grass.** You should set up over grass for less heat distortion, but to make sure you do not sink into the ground and change your telescopes alignment use some small stepping stones, or pieces of wood to set up on. This way you won't slowly fall into the ground. Good solid wood decks can offer a good place too also.
17. **Remove all caps and covers.** Some telescopes come with a focus or alignment caps that have smaller holes in them. It is possible to forget to remove these caps since they are designed to allow light through. Once acclimated, make it a ritual to check all caps and covers are removed for viewing.
18. **Use the same location.** Try to set up your telescope at the exact same spot every night. With this, you will have the exact same field of view from your

telescope on your every viewing experience. This will help you drastically in finding objects that you would want to view. One way to accomplish this is to mark the spot on the ground where you put the legs of your telescope's tripod. Setting up over a good solid deck you can insert some thumbtacks, magic marker, or drips of paint to save time on setup.

19. **Create more stability.** Once set up, pull out each leg of your tripod just a little bit more to ensure rigid, sturdy support. Then take time to mark the location.
20. **Snug up your fasteners.** Check all of your bolts and nuts on your telescope mount. Make sure they are nice and snug but don't over tighten just enough so that you have to pull and push to position the tripod and nothing can move on its own.
21. **Get "jiggy" with it.** The eye is much better at detecting the movement of objects rather than that of a static object. This is because of how we evolved. Seeing the movement of that Saber Tooth Tiger as it approached helped keep us alive. So, if you are having difficulty in seeing a faint distant object, try to jiggle your telescope ever so slightly to take advantage of this human genetic trait of our eye.
22. **Take notes of your observations.** This compels you to not only just look at random things in the night sky, but also to identify them and write down what they actually are. Astronomy is not a hobby just to see celestial bodies it is also about discovery.
23. **When wanting to view the sun.** DO NOT EVER LOOK AT THE SUN! I recommend always projecting the sun onto a surface using your telescope. For Sun Viewing Tips and Tricks click [here](#).
24. **When the Moon is too bright.** The moon can also be a source of light pollution so using a moon filter can be extremely useful in filtering out the glare from the moon at the night sky. This allows you to get a brighter image of the faintest objects in the night sky.
25. **Filters come in all colors,** but a blue one will help over all the most for all your viewing. Also, you should lay your filter on top of your eyepiece, or insert it into the adapter before the eyepiece mounts. This will allow you to change magnification without fooling around much with the filter.

26. **Improve your visual awareness.** While focusing on your center of view, try to see what is around your object at the center of view without moving your eye. This trains your eyes to be more aware.
27. **Stay updated.** Trying your best to be updated on astronomy events like a solar eclipse, meteors or comets passing by, and etc. will allow you new cool stuff to try and see. One way to do this is by following famous astronomers on Twitter. You can also like pages on Facebook that are dedicated to astronomy. Even Pinterest has neat ideas and things to help you improve on your new hobby. Here is who I follow...
28. **Find a local amateur astronomer's club.** A hobby can best be enjoyed with other people. Aside from the fun, a local astronomy club can help you with tips and tricks on how to use your telescope. They may even have a more advanced telescope that you can get to use also.
29. **Find the Space Station.** Try to look for the International Space Station. There are a lot of resources out there that can let you track exactly where the ISS is in orbit. When it does pass in your area, try to look at it. Trying to find and track it across the sky Since it is much closer than the moon and other heavenly bodies, you will be able to see it in much more detail. For example, the solar panels on the ISS can easily be seen in detail.
30. **Go to the higher power.** Sometimes when trying to find faint objects, it may be easier to increase your magnification. What this does is make your field of view more narrow and actual empty space will become darker bringing out the faint object. This is for when you are close to finding it, and you are just using your slow motion controls.

I hope you find this information to be helpful as I have wished it to be. It is designed to help bring viewing enjoyment instead of viewing discouragement. Check out the latest post from TelescopeSchool.com.