



Creating a block out for our environment

A block out is much like a rough 2D sketch, but in 3D. Certainly before we start creating final models and textures for our environment we should consider things such as layout, scale, and the number of assets we will need to create. This sort of thing is best done using simple primitives and basic materials. This process is really an extension of the simple planning we have done on paper for our environment. However, this will let us do some quick 3D sketching inside 3ds Max 2010 before committing to final models and textures. It is OK if things change, that is why we are starting simple.

1 Tips to ensure your block out is a success:

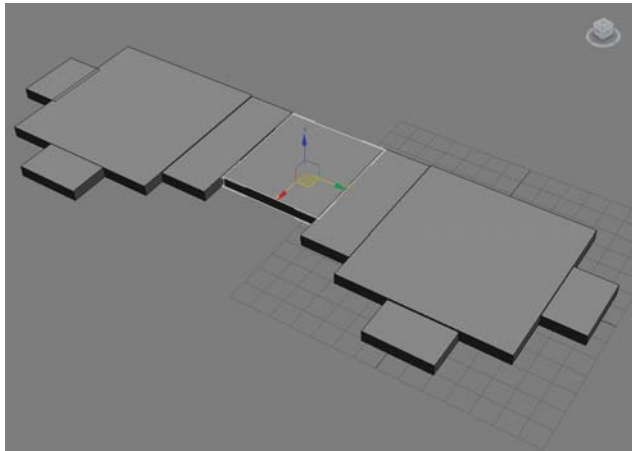
- Keep the models simple by using only standard primitives (boxes, cylinders, spheres, and so forth).
- Focus on scale and ensure the space feels right and is in proportion.
- Think about asset reuse down the line. Though it is only a cube now, when you make your final model, if you can reuse it elsewhere in the environment and not have to make other unique assets you will save time.
- Lastly, do not create your block out and forget about it. Refer to it until you are ready to let go and feel your environment is taking shape.

Now that we know just how important our block out can be to the overall success of our environment, we should take what we have learned from our initial planning and assessment and begin one for our arena. As noted above, we will do so using simple primitives such as boxes.

2 Using box primitives and our Move, Scale, and Rotate tools, we begin to block out the ground platform.

To start, we will take a simple box and then duplicate it, scale it, and arrange it to build our initial platform. We are not concerned about the boxes intersecting or overlapping. That is all part of the quick block out/sketch process.



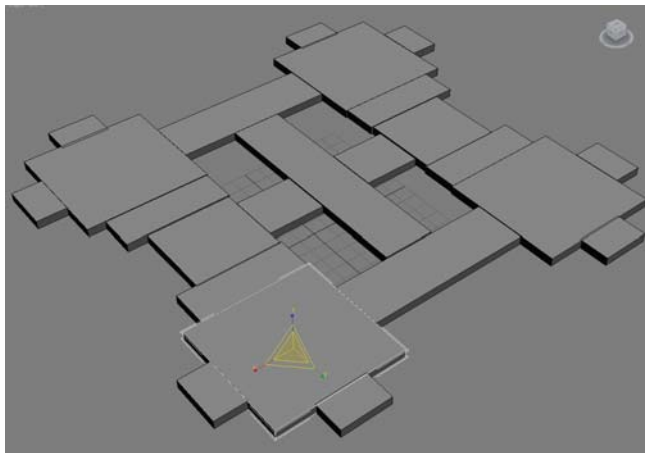


Starting our initial block out.

Tip: You can hold **Shift+LMB** and move a mesh using the translate tool to quickly duplicate objects.



- 3 Continue to refine the floor, adding more boxes and paths and begin to think about it as a whole.



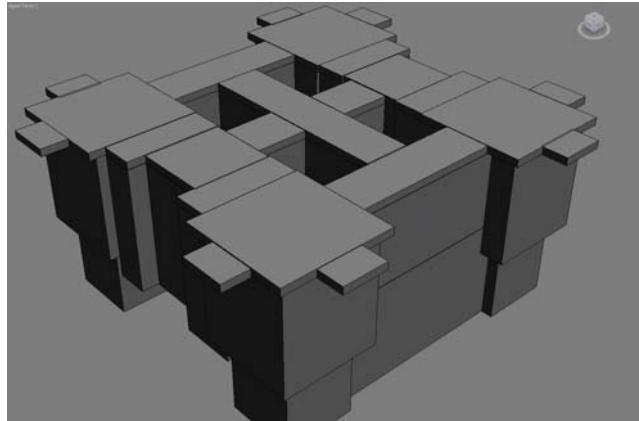
Our ground platform is nearly complete.





4 We begin to build out the base of our platform.

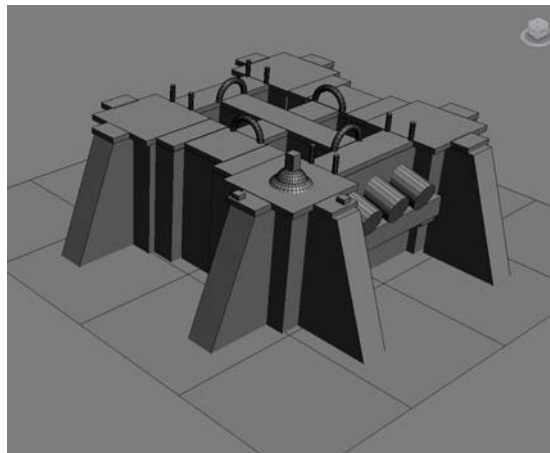
With our platform developed, we will begin to flesh out the base of our environment. Note that we are still keeping it really simple. Basic primitives are being used and scaled.



Broad strokes are complete.

5 Now we can begin to work in some of the finer details .

Lastly, we begin to think about the placement of some of our smaller detail objects such as the arches, a main building, large exterior water pipes, and the side support structures.



Our block out is complete.





6 Save your work.

- Save your scene as *Blockout01.max*.

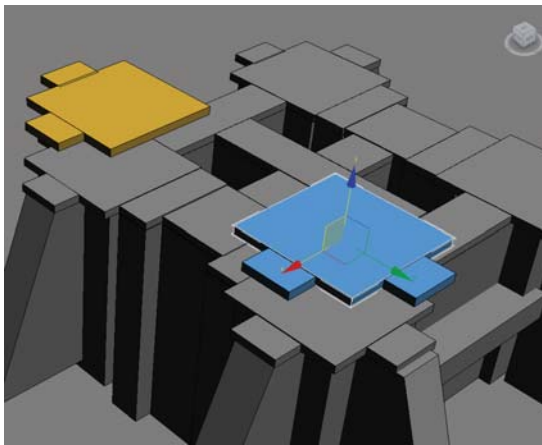
Our block out is now fairly complete. With this we can now begin to think about how some of these mesh assets can be broken up and made more reuseable. As you can tell from our final image of the block out, our arena is largely symmetrical in both directions. This can be good for a few reasons:

- We only need to create essentially one quarter of the platform and then mirror in both directions for a complete platform Creating a block out for our environment.
- Symmetrical maps usually work well competitive team based games such as a Real-time Strategy game, or more precisely, a capture the flag mode in a First Person Shooter.

Working modularly

With our environment roughly blocked out we will begin to break down the platform into reusable assets, or modular chunks. This step is incredibly important because it will save a lot of time later on in the process. Because much of our platform is simply mirrored, we will only need to create a small percentage of unique pieces that can then be used to build our entire platform. This is what working in a modular fashion is all about!

To start, we will identify a few sections of the platform that could be made in a reusable way. The first are the corner platforms that look like a puzzle piece. We will create this asset just once and then duplicate and reuse it.



The two platforms are identical and could be made once to save time and then duplicated to create our platform.

