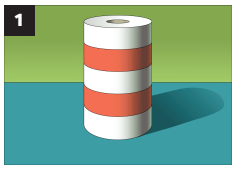
The Art Instructor

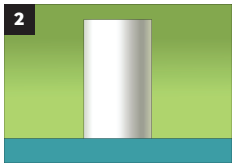
The Secret Plate - Slide Show Script - Read these captions

1



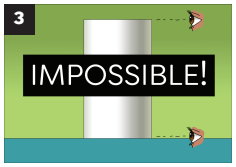
Here is a picture of a striped cylinder just like we've been drawing. Do you think it looks like an accurate cylinder shape? (Yes!)

2



Here is what we ***think*** we are looking at though. Our logical mind tends to view things from a perfect side view.

3



The problem is that to see the top as flat, your viewpoint must be right at the same height. That means you can't see both the top and bottom as flat at the same time. It's impossible! Your eyes can't be in two places at once.

4

We can draw things like this and they sometimes look very nice and sometimes we draw this way on purpose, like last week. However, it is VISUALLY impossible from a normal distance. That means for accuracy, you need to draw cylinders visually true. Note: Modern photography can actually make objects look like this. They are using special lenses for photographic tricks.

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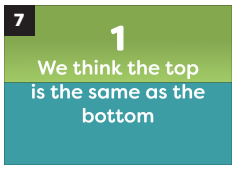
There are 3 very logical reasons for why we do this though. Let's look at them.

7



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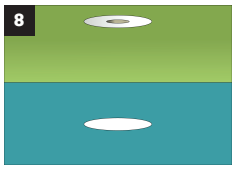

Here is the top, drawn accurately, and also an exact copy placed down at the bottom. This seems like a great idea…

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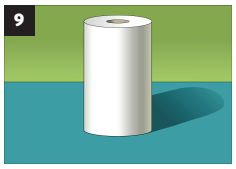
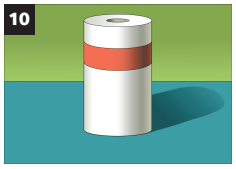


However, it looks less accurate when you add the paper roll in between the top and the bottom. Now the bottom looks a little flat.

10



If you start to add details like the first stripe, then the bottom starts to look really off.
[Cover the bottom half with a sheet of cardboard or stiff paper to view just the top and how accurate it looks. Then pull it away so students can see how it's way too flat.]

11

The second reason we draw this innacurately.

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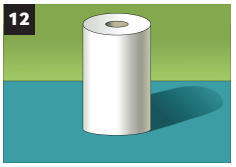

This cylinder looks even worse, but all we've done is make the top more rounded. Since almost all artists tend to do this, we need to compensate by being aware, and reducing the roundness of the top *on purpose.*

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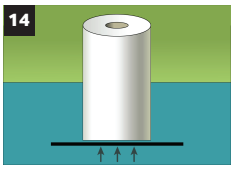
The final thing that causes us to draw most objects innacurately is how our brain tells us something logical and true, but goes totally against what it looks like from our viewpoint.

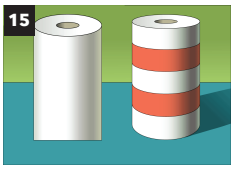
14



The table is flat. Why isn't the bottom flat too? It's a logical solution, but visually inaccurate.

This looks weird now, but this is what the brain is shouting at us to do: make the top more round and make the bottom more flat.

15



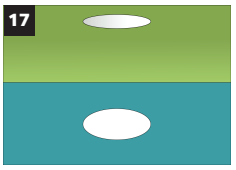
If we place our logical truth-based cylinder next to our accurate one, it's very weird looking. The one on the right is accurate and you can see how huge the differences are.

16

Since most artists struggle with cylinders in these 3 ways, we have a great little trick that makes it easier. First, let me show you the bottom of this cylinder the way it really is.

It will surprise you.

17

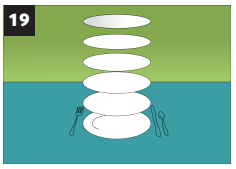


Ok, this looks crazy! But this is the top and the bottom of the accurate cylinder that you've been looking at. Even the artist who drew it has a hard time believing that this is accurate when looking at it like this! But it really is.
I'll prove it to you in a few minutes too!

18

It looks much more normal if you put the bottom in a different context. **The Secret Plate!** If you think of the bottom of the cylinder as if it were a hidden plate, you can draw it more rounded and more accurately. We can accept the much more rounded shape of a plate.

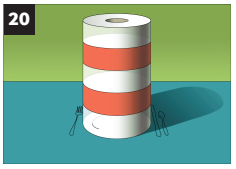
19



This progression shows how the perspective of the plate changes from the bottom to the top. This helps us realize the accuracy even more.

When you draw the bottom of a cylinder, ALWAYS draw the whole secret plate.

20



Each of those secret plates show the roundness of the stripes as well as the top and bottom. Each is slightly different, getting more and more rounded the lower it is!

Now you know the secret plate secret trick.