VOICEOVER: This episode of Million Bazillion was filmed before a live studio audience… not really.

**--Theme Music--**

[FADE UP APPLAUSE]

JED: Welcome back to Million Bazillion, where we help dollars make more sense. I’m Jed.

BRIDGET: And I’m Bridget! Thanks for joining us for this VERY SPECIAL LIVE episode of our show! <crowd reacts with thunderous applause>

JED: See, you guys sent us So. Many. Questions about why money looks the way it does...like why is it green? How do we pick who and what’s on it?--

BRIDGET: All very important questions. And we couldn’t decide which ONE we should answer…so we discussed it…

JED: And we NEGOTIATED with each other...

BRIDGET: And we decided the best compromise was to answer ALL of the questions you have about money and why it looks the way it does. Or at least, as many as we could fit into the show.

JED: That’s right! And then we thought, if we’re going to answer a whole bunch of questions, why not do it in front of a LIVE studio audience. Let me hear you guys, make some noise!!

[WILD APPLAUSE]

JED: We’ll be back after this with your questions about why money looks the way it does, and a really smart guest who's going to help us with the answers!

**--Asking Random Kids--**

**KIMBERLY: And now, it’s time for asking Random Kids Not So Random Questions.**

**Today’s question is: If you could design your own money, what would it look like?**

**That was TK TKTKT.**

**This has been asking Random Kids Not So Random Questions.**

**--Asking Random Kids--**

[APPLAUSE CROSS FADE W ARK]

JED: Wecome back to this special episode of Million Bazillion, today in front of a live studio audience! We’re diving deep into your questions about why money looks the way it does!

BRIDGET: That’s right! Because money is very useful! Look under your seat….we gave you all a dollar!!

CROWD GOES CRAZY

KID IN AUDIENCE 1: Hey, my seat only has gum under it!

BRIDGET: Now look at that dollar REALLY carefully! Do you see how detailed it is?

JED: Oh I do! I’ve got an American ONE dollar bill here...It’s green...I see the picture of George Washington on the front...the back has that fun weird pyramid… oh - and there’s a cool eagle… and lots of plants… and are those spiderwebs? I gotta say, the images are all so clear and intricate! So much detail! And yet it’s all so tiny!

PICKUP BRIDGET: And did you know that every country has different art on their bank notes? That’s another word for bills. A lot of countries use different bright and beautiful colors for their money! They make the bills different sizes! It’s art that just happens to fit into your wallet.

JED: Okay, let’s get to answering your questions! Today’s guest is a very special one. Her name is Ellen Feingold and she’s the money curator at the Smithsonian museum. That means she’s in charge of all the money the museum has in their collection.

BRIDGET: And that’s a whole lot...they’ve got money from around the world, and back in time...the money is all shapes and sizes! And she gets to decide which money is on display when people visit!

JED: It’s pretty cool. Let’s give Ellen a warm Million Bazillion welcome!

[APPLAUSE]

[[JED: Ellen Feingold, welcome to the show.

ELLEN: My pleasure. Thanks for having me.

JED: All right, let's start with a question from the audience, come on down, and ask your question into that microphone!

**Hi, I am Veehan from Los Angeles. I am seven years old. And my question is, why is money green? And has important people on it?**

JED: What a great question from Veehan! Can we get a round of applause for him? [APPLAUSE] Get that kid a free shirt! So Ellen, let’s get your answer to the first part of his question. Why is American money green?

ELLEN: That is a great question. American banknotes were first made in the early 1860s. And at the time, we only had black and white photography. So the people that were designing the banknotes decided that it would be a good idea to choose a bright color that couldn't be reproduced by using a photograph or taking a photograph of another banknote, as part of the design. So the very first banknotes, federal banknotes made in the early 1860s had a bright green color, and they got the name greenbacks. And that became the that sort of popular way of referring to American money. And it stuck. It also is green is also seen as a sign of trustworthiness. And green ink was seen as very robust in the 1920s when our current bills that we have for being first designed. So there's a lot of reasons, but the biggest reason is because it has become an American tradition.

[SFX: APPLAUSE]

JED: Alright, then why do we put important people on our bills and coins?

ELLEN: The first people to appear on money were ancient Persian nobleman, and Roman emperors. And they put themselves on money to say I'm in charge to show that they were the authority behind the money and also in power in their countries or in their in their towns. Many leaders have chosen to do the same thing since and in this country. Although leaders cannot put themselves on banknotes, the way Roman emperors could. Our Treasury Department has chosen to put important people that they see as our national leaders, our founding father figures on money for over 200 years, we have seen people like George Washington, and Benjamin Franklin appear on our banknotes. And it's a it's again, seen as an American tradition to include the faces of American leaders on our money.

BRIDGET: And then we have a letter from Kaia who wants to know, why is there no woman on the dollar bill?

[AUDIENCE MURMERINGS OF Discontent]

ELLEN: That's a really good question. And it's a question that a lot of people have been asking in recent years. The banknotes that we use today were first designed in the 1920s. And the people who were doing those designs. They didn't think about the role that women played national history, they had a really fixed idea about a handful of male political figures, people that were seen as founding father figures, and wanted to use money as an opportunity to honor them. And while those figures, people like George Washington certainly are an important part of our national history, our money does not reflect the way in which women have contributed to the building of our nation. So it's, I think, high time that we take a careful look at who we depict and how we depict them on our money. And think about the ways in which a broader community has contributed to the building of our nation beyond those founding father figures, and how we can honor them and how we can convey their achievements and their contributions through design on banknotes and coins.

[APPLAUSE]

PICKUP BRIDGET: I’ll add, the people who design our coins recently started putting women on the backs of our quarters. And there’s been talk of putting Harriet Tubman on the 20-dollar bill.

PICKUP JED: Alright, let’s finish up with one last question from our audience!

**Hi, I'm Mila, from Ottawa, Ontario and Canada. I wanted to ask, why is Canadian money colorful and us money not?**

JED: Yeah - Canadian bills are a rainbow of different colors -- from yellow to purple to blue. It’s so fun! What’s up with that?

ELLEN: Canadian money is made from plastic. They're called polymer banknotes. And that's different from American money which is made from paper cotton and linen mixture. The plastic that the Canadians and many other governments around the world use allow for the application have a whole wide range of colors, bright colors, and also other interesting security features like clear lenses. So Canadians have a material that allows them or they use a material that allows them to include bright colors and more vibrant designs than paper allows for.

BRIDGET: I love those clear lenses -- they’re like little windows! Audience members, take a look in your wallets. We put a Canadian dollar in there so you can see for yourselves! [CROWD GOES WILD]

VOICE: How’d they do that?!

PICKUP BRIDGET: [WITH MORE JOY] Alright, thank you so much for answering our questions, Ellen!

JED: Thank you, Ellen.

ELLEN: Thank you very much for having me.

[APPLAUSE]

PICKUP JED: We’ve got a little bonus if you go to our website. We had a chance to talk to a real-life money designer. He works for a company that’s designed a third of the world’s currency! You can hear what he had to say about his super cool job at marketplace dot org slash million. Just look for the page for this episode. And you know what? While you’re there, why not sign up for our newsletter to get new episodes of Million Bazillion delivered straight to your inbox. You’ll be happy you did. [BEAT] All right, now for a money commercial break!

**--COMMERCIAL 1--**

COMMERCIAL VOICE : Hey kids, are you bored, stuck at home? Wish you could get out there and experience America?

COMMERCIAL KID: Yeah!

COMMERCIAL VOICE : How would you like to see 26 states... for just five dollars?

COMMERCIAL KID: Whoa! That’s so cheap!

COMMERCIAL VOICE : All you’ve gotta do is get out a five dollar bill and look at the Lincoln Memorial on the back.

COMMERCIAL KID: Ok...

COMMERCIAL VOICE: Look closely, and you can see the names of 26 states written across the top of the building.

COMMERCIAL KID: Let me get my magnifying glass. Whoa, you’re right!

COMMERCIAL VOICE :But there you go!

COMMERCIAL KID: All right, well that was cool! When does the vacation start?

COMMERCIAL VOICE : What are you talking about?

COMMERCIAL KID: Here’s my five dollars. When do I start visiting the 26 states?

COMMERCIAL VOICE : You don’t actually go. This is more a vacation for your mind!

(CROSSFADE THEIR SQUABBLING WITH MUSIC)

COMMERCIAL KID*: What a rip off! I want my vacation!*

COMMERCIAL VOICE *: Hey, I just showed you something awesome!*

*-----END COMMERCIAL 1---*

PICKUP JED: We’re gonna take a short break, for real now. When we come back, we’ll learn about another important part of money design...that’s the secrets buried in a dollar to keep it safe from thieves!

**--Midroll--**

JED: Welcome back everyone. Bridget, wasn’t that a fantastic segment?

BRIDGET: It sure was, Jed. Ellen Feingold is such a delight! I really loved learning the back-story of why our dollar bills look the way they do!

JED: Absolutely. Well, now we’re going to talk about some other important parts of a dollar bill’s design. And these are things that are meant to stop counterfeiting, which is when people make fake money and try to pass it off as real cash. It’s highly illegal. And in fact, you know the Secret Service -- those people that protect the president of the United States -- well, they were actually created way back in 1865 in order to investigate and stop counterfeiters. See, back then, about a third of all money that was circulating in the country was fake!

BRIDGET: Well, fortunately that’s no longer the case. I mean, people DO try to counterfeit money, but it’s not as widespread as it was back in 1865! And a big reason for that is because it’s really hard to make a GOOD, convincing fake version of American money. There are all sorts of really complicated things on real dollar bills that make them hard to copy..

JED: To learn more about it, we’ve got a special guest! He’s the star of a new movie about criminals trying to get past the security measures that are built into money. Please give a warm welcome to Serge Loonie!

(SFX - AUDIENCE APPLAUSE THAT PETERS OUT)

JED: Uh, Serge?

BRIDGET: Uh oh, unfortunately, I’m hearing now, it seems Serge’s limousine is stuck in traffic, and he’s running late.

(SFX - AUDIENCE GOING “Aawww”)

JED: Well, let’s play an extra-long clip from the film, and maybe that’ll give him time to arrive. Let’s see, in this movie, he plays the role of criminal mastermind Nathaniel Pond, who you’ll hear right at the top talking with his daughter Greta. Can we roll the clip?

(SFX - FILM PROJECTOR STARTING; BEEP BEEP)

NATHANIEL: Wait a minute, if I figured out a way to make a fake hundred-dollar bill, I’d be rich!

GRETA: Hang on, that’s called counterfeiting, and-

NATHANIEL: But I’ll need some help... (SFX - DIALING)

GRETA: Who are you calling?

DISCOMBOB VOICE: (phone quality) Yeah?

NATHANIEL: Put the old gang back together. I got us a job.

(MUSIC)

(SFX CROWD MURMURING ROUGHLY 40 PEOPLE)

NATHANIEL: Greta, meet the team.

GRETA: Wow, this is a lot of people.

NATHANIEL: Thanks for gathering on such short notice, everyone. It’s been a long time. I know we all thought we were finished with this life, but when opportunity comes around, you gotta jump.

MABEL: What’s the score, Nate?

NATHANIEL: Well, Mabel, we’re gonna make a copy of this hundred dollar bill.

MABEL: (whistling) Funny money, eh? I’m in. When do we start drawing?

NATHANIEL: Hang on, it’s harder than you think. Otherwise, everyone would do it.

GRETA: Oh, it’s much, much, MUCH harder than *you* think, Dad.

(COOL HEISTY MUSIC)

GRETA: First of all, U.S. banknotes are printed on special paper. It’s a blend of cotton and linen that not just anyone can get.

NATHANIEL: Smitty, you can get anything. Can you get us some of that paper?

SMITTY: Nope.

NATHANIEL: All right, we’ll figure something out.

GRETA: And then there’s the stuff hidden within a banknote. Did you know there’s teenie tiny printing hidden in places like Ben Franklin’s collar?

SMITTY: There is? Hand me that magnifying glass. There is! It says “The United States of America!”

NATHANIEL: All right, gang, who can write really small? Big Toni!.

BIG TONI: Yo.

NATHANIEL: You’re on it.

BIG TONI: Oh...

GRETA: But it’s not just writing small. There are also hidden pictures of Ben Franklin’s face that you can only see by holding it up to the light.

DISCOMBOB VOICE: [Not on the phone] It’s like a ghost!

GRETA: And, look at the number 100 in the lower right. It’s written in ink that changes color depending on the angle you hold the bill.

NATHANIEL: Hmm… anyone got any ideas?

BILLY THE ACTUAL KID: I’ve got some magic markers. Maybe they’ll work? If it’s magic?

NATHANIEL: Excellent thinking, Billy The Actual Kid!

GRETA: It definitely won’t work. Plus, check this out. Kill the lights.

(SFX - CHUNK OF A LARGE SWITCH BEING THROWN AND POWERING DOWN)

(SFX - FLICKERING FLUORESCENT BULB COMING TO LIFE)

ALL THE CHARACTERS: Ooh!!! Wow! What is that?

GRETA: When you look at a hundred dollar bill under ultraviolet light, you see a hidden strip that glows pink. Every denomination of bill from five dollars on up has one of these, and each glows a different color.

FANCY FRANNIE: She’s right! (SFX - RUMMAGING IN POCKET) The five dollar bill has a blue glowy strip. The 10 is orange! 20’s green! 50’s yellow! It’s yellow!!!

NATHANIEL: Calm down, Fancy Frannie. We’re focusing on the big money. Thank you for the report, Greta. Is there anything else?

GRETA: Actually yeah, but we don’t know what it is. The Treasury Department has included some secret anti-counterfeiting techniques that no one knows about. Even if you figure out everything else -- the special paper, inks, hidden images, yadda yadda -- you’ll still be in the dark about how to make the perfect fake.

DISCOMBOB VOICE: [NOT ON PHONE] This is hard! Why’d they make it so hard?

GRETA: Because it’s really important for people to be able to trust that the money they use is real. Otherwise, it’d be a lot harder to buy and sell things. And if there’s a lot of fake money circulating or moving around the economy, that'll make real money less valuable. That’s why the Secret Service is in charge of investigating cases of counterfeit cash.

NATHANIEL: But if we can pull this off, that’s a big payday for us. We’re not gonna give up just because it’s hard or morally the wrong thing to do, are we team?

VOICES: No!

GRETA: Well, there’s also prison.

(SFX - CRICKETS)

FORGERY BOT: I can’t go back to prison.

NATHANIEL: Forgery Bot, you were never in prison. You got detention for faking a parent’s signature. But I take your point. All right, gang, this one may not be worth the trouble. Too bad. We could’ve had one hundred dollars.

GRETA: Wait, but there are 38 of you. That would’ve just come out to $2.63 apiece.

MABEL: Wow, it would’ve been our biggest payout yet!

NATHANIEL: Well, try not dwell on it too long. We’re under attack by aliens!

(SFX - FILM FLAPPING ON A PROJECTOR WHEEL)

BRIDGET: Wow, that’s sure going to be an amazingly exciting movie when it comes out.

JED: Yes, and I’ve got some more good news for you. Serge Loonie is here!

(SFX - AUDIENCE CHEERING)

JED: He got out of his limousine and sprinted the last mile to get here. What a pro!

SERGE: (panting and gasping for breath)

JED: Serge, what was your favorite money-related thing you learned while making this movie?

SERGE: (wheezing)

BRIDGET: Looks like that run really did him in. Well, we have to take a commercial break. Everyone, give it up for Serge Loonie!

(SFX - AUDIENCE CHEERING)

--COMMERCIAL 2--

COMMERCIAL VOICE: You asked for it, and we answered. The mega blockbuster video game franchise of the millennium is back.

ECHOING VIDEO GAME VOICE: Virtual Branch Manager 4!

COMMERCIAL KID: Ooh! What’s new this time?

COMMERCIAL VOICE: We’re glad you asked! In VBM 3, we took you into virtual reality to get the feel of building and running your own bank.

COMMERCIAL KID: [playing video game] These pleather armchairs look so real!

COMMERCIAL VOICE: Now, in VBM 4, you’re banking... for the government! You’ll lead a branch of the Federal Reserve, which is the central bank of the United States. Here are just some of the things you’ll be responsible for:

ECHOING VIDEO GAME VOICE: Taking old, worn out bills and destroying them -- then ordering new ones to be made!

COMMERCIAL VOICE: Neat!

ECHOING VIDEO GAME VOICE: Taking deposits from and making loans to regular banks.

COMMERCIAL VOICE: Whoa! It’s like a bank for banks!

ECHOING VIDEO GAME VOICE Ensuring the financial stability of the nation.

COMMERCIAL VOICE: That sounds important! It’s fun for the whole family!

COMMERCIAL KID 1: Mom, you’re hogging the game!

KID 2: When’s it going to be our turn?

OVERLY CHEERY MOM: Not now. I’m raising interest rates! Woo hoo!

COMMERCIAL VOICE: Don’t miss out. Order Virtual Branch Manager 4 today!

**INTERSTITIAL**

JED: Okay everyone...this has been a lot of fun. Let’s hear it for you, our live studio audience!

[APPLAUSE]

BRIDGET & JED: Yeah, you guys rock, you’re the best! This has been awesome, [etc., have us talking over the applause]

BRIDGET: Before we go, we wanted to leave you with a few final thoughts…

JED: First, money is more than a way to buy things...a lot of care and thought goes into designing every bill. To make sure it’s secure. And to make it beautiful. Each bill is a work of art.

BRIDGET: Art that’s also meant to represent the country in which it’s used. And it’s worth thinking about whether the money art we carry around with us is doing the best job of representing us and the things we’re proud of.

JED: Either way, the next time you come across a bill...look at it. And I mean, really take a good long look at it. You might notice something you’ve never seen before.

PICKUP BRIDGET: I mean, just seeing a dollar bill in your hand is practically new territory, amirite?

PICKUP JED: Hi-yo! Zinger! You got me. All right, good night, everyone!

[AUDIENCE APPLAUSE CROSS FADES WITH THEME MUSIC?]

**--Theme Music/Close--**

BRIDGET: Thanks for listening to Million Bazillion -- where we help dollars make more sense… In our next episode, we’re answering a question about the stock market.

JED: Ooh, that’ll be a good one. If you have a money problem you want to share, a money skill you want to learn, or a question you want answered, email us at Marketplace dot org slash million.

BRIDGET: Did you know you can get new episodes of Million Bazillion delivered right to your email inbox when you sign up for our brand new newsletter at Marketplace dot org slash bonus? You’ll get extras like a tip sheet and a comic about that day’s episode. And details about how to order a Million Bazillion T-shirt! That’s Marketplace dot org slash BONUS.

JED: We had help making and voicing this episode. We owe a big Thank You to: Kimberly Adams, Sabri Ben Achour, Chris Julin, Melody Perkins, Nova Safo, Daniel Shin…

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JED: Million Bazillion is brought to you by Marketplace in collaboration with Brains On! And American Public Media.

I’m Jed Kim, your co-host…

BRIDGET: I’m your other co-host Bridget Bodnar. I’m also the senior producer of this podcast.

Marissa Cabrera is our producer.

Sanden Totten is our editor.

JED: Chris Julin is our sound designer.

Our theme music was created by Wonderly.

This episode was mixed by Bekah Wineman.

BRIDGET: Our digital team includes Erica Phillips and Tony Wagner.

Sitara Nieves is the Executive Director of On Demand at Marketplace.

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BRIDGET: To all the grown-ups listening right now – we hope that you and the kids in your life are having some good conversations about money thanks to Million Bazillion. We created this podcast to help kids get an early start on learning about the economy – and to keep it going, we’re counting on your support. Donate today at marketplace-dot-org-slash-givemillion, and thanks for chipping in to make our work possible.