

## **Who, When, Wow! Mystery Edition**

### **Tunguska Event**

**Carly.** Psst! Hey! It's your favorite secret host here, from your favorite hopefully-still a secret podcast. Today's adventure is all about a mysterious explosion: a hundred years ago, a big BOOM went off in a tree-covered valley, and NO ONE could figure why! So stick around as I search for some explosive clues. I'm Carly Q, and this is Who When Wow, Mystery Edition!

(THEME SONG)

**Carly.** I arrived at the office today in a pretty great mood, if also a little addled. See I'd been playing this new Hungry Snake game on H-dad recently, and I was awfully hooked. I was so distracted with the game I almost bumped right into Carol when I walked in.

**Carol.** Whoa! You okay Carly?

**Carly in the background.** Yes! Sorry, just been a little, um, distracted recently.

**Carly.** And it wasn't just Hungry Snake that had me off my game. It was also that mysterious letter writer! We still had no idea who had been spying on Lewis and me, and why they would leave an anonymous note on my desk. What I needed was a juicy new clue to sink my teeth into.

(Soundbite of video games and basement door closing.)

**Carly.** So imagine my delight when I got down to the basement and,

**Lewis.** Carly Q! Is that you?

**Carly.** Lewis. Where are you? Lewis was in the back corner of the basement kitchen, on the ground with a magnifying glass in his hands. And there on the dusty tile floor beneath him was,

**Lewis.** A footprint!

**Carly in the background.** A weird footprint! And only one?

**Carly.** It was big, and a little oddly misshapen. Maybe a strange pair of shoes?

**Lewis.** I was coming down here for a fizzy water when I noticed it. Any idea who it belongs to?

**Carly.** No idea.

**Lewis.** Has anyone else been down here recently?

**Carly.** Just me, Odie and Nibbles. But if I'm picking up what you're laying down, are you wondering if this footprint belongs to whoever's onto us?!

**Lewis.** It's like you're reading my mind! This could be our culprit!

**Carly.** Just then my rat friend Nibbles scurried in.

(Soundbite of rat squeaking.)

**Carly.** Yeah, we don't know who's footprint it is either, Nibs!

**Lewis.** If you're still thinking what I'm thinking Carly, then you're probably thinking we need to make a list that shows the shoe sizes of everyone who works here at BUTTHED.

(Soundbite of rat squeaking.)

**Lewis.** What'd she say?

**Carly.** That she already has a list like that. Also hat sizes for ev - Wait, WHAT? But just then,

(Soundbite of a thumb drive comes down the vacuum tube.)

**Carly and Lewis.** A new time-sealed file!

**Audio File.** Event: On June 30, 1908 (BEEP) Siberia, Russia (BEEP)explosion.

**Carly.** Siberian explosion?! I gotta know more!

(Soundbite of rat squeaking.)

**Carly.** I know, I know! I love explosions too! But what exploded?! I pulled out H-dad, my handheld digital assistance device.

**H-dad.** Re-launching Hungry Snake, level 44.

**Carly in the background.** No, no, cancel, no!

**Carly.** And plugged in the clues from the file.

**Carly.** 1908, Siberia, explosion.

**H-dad.** This file most likely refers to the Tunguska Event, a huge explosion in a remote area of Siberia in 1908. It flattened an estimated eighty million trees over an area of nearly eight hundred square miles. Scientists spent many years trying to determine what caused it. Tree emoji, Russian Flag emoji.

**Carly.** An explosion that was almost half the size of Delaware?

**Lewis.** Well, Delaware is a pretty small state, Carly.

**Carly.** It's bigger than Rhode Island! And that's HUGE for an explosion! It's also the first state and it's also the home of tax free shopping. And yes it is also where I was born. I wonder what happened. Super-powered earthquake? Secret underground volcano? Crash landing of an alien spaceship?

**Lewis.** A giant FOOT that somehow made an explosive PRINT?

**Carly.** I like where your head's at Lewis. Always on the case!

**Lewis.** Ugh, and I would loooove to keep working it. Unfortunately, I gotta go get some actual work done before lunch time. But I'll keep an eye out for any weird footwear!

**Carly.** Good call. Eyes on the toes, Lewis! I checked to see if H-dad had any more info, but all I got was,

**H-dad.** Analyzing. Analyzing. Analyzing.

**Carly.** So I got down to work too. And a few hours later,

**P.A. Voice.** Attention, Butthead employees: It's eat like an astronaut day! Please ONLY eat your lunch today in the zero-gravity chamber on the 8th floor. Float your way to deliciousness!

(Soundbite of Lewis coming downstairs.)

**Lewis.** Lunch time!

**Carly.** I grabbed Nibbles and H-dad, and we took off for the elevator.

**Lewis.** You know all those facts about Delaware were true. I looked them up.

**Carly.** Lewis you could always come visit. My parents would love to have you.

**Lewis.** Pass.

**Carly.** Hi Odie.

**Odie.** Good afternoon, basement companion.

**Lewis.** Hello Deode.

**Odie.** Don't do that. How are we today?

**Carly.** We are so great. We have a truly explosive time sealed mystery we got. Ever heard of the Tunguska Event?

**Odie.** The mysterious explosion in the remote woods of Siberia? Who hasn't?

**Lewis.** Me?

**Odie.** That is not surprising, Lewis. This was an unexplained mystery for many years, and wasn't even properly investigated until the 1920's, by a Russian scientist named Leonid Kulik.

**Carly.** We're going on a scientific expedition to the site of a mysterious explosion!? This is like being in a sci-fi novel.

**Lewis.** Hm could it be a graphic novel? I don't like all of those words. So tiring!

**Odie.** Let's remember our time travel rules.

**Carly.** No changing the past!

**Lewis.** Be back by the end of lunch time!

**Odie.** Remember too the time cloak function on the elevator, which will make your clothes more appropriate to the time period. And the translation function so you can understand Russian.

**Carly.** Dah. That means yes.

**Odie.** And when you write me into your sci-fi graphic novel, give me a cool outfit and a funky hairdo, yes?

**Carly.** Punky funky sci-fi Odie here you come!

**Odie.** That's a bit much. The explosion event is covered by the time seal, but I can send you back to the day after. And of course you can always fast forward to other dates on the file. Sound good?

**Lewis.** Let's do it!

**Odie.** Oh and also. Don't forget to look up.

(Soundbite of wind chimes.)

**Carly.** Look up?

**Odie.** Okay here you go. Dasvidaniya.

**Carly.** Wait. Look up at whatttt?

(Soundbite of elevator travel noises.)

**Carly.** We made it! We are in the Russian wilderness 1908! Ya know I was expecting it be colder.

**Lewis.** Me too.

**Nibbles.** Welcome to Russia in the summertime! Just cause it's Siberia doesn't mean it's always freezing!

**Carly.** True fact! And look at our clothes.

**Lewis.** Russian peasant garb! Really? I hate grey.

**Carly.** We took in the scenery around us. We were standing on a hilltop near a small village. Things looked okay in the town, but in the distance we could see miles and miles of flattened trees.

**Lewis.** Look at all those trees! Totally horizontal.

**Nibbles.** Ooh they look like they were blown over by hurricane winds.

**Carly.** The explosion that did that must have been HUUUUUUGE.

**Lewis.** Let's go talk to some villagers and figure out what caused it!

**Carly.** We walked down the hill to the village. I pulled out H-dad and discreetly played some Hungry Snake as we walked, while Lewis scoped out the village.

(Soundbite of video game noises.)

**Lewis.** Small houses, a few stores along a main street. Just a one horse town, huh? Does it remind you of Delaware?

**Carly.** Kind of yes. We spotted an older woman sitting out on a porch. Nibbles ducked into my pack while I, mournfully, put away Hungry Snake. We walked over to say hello.

**Nibbles.** I'll stay quiet. I don't want any trouble with these Russian chickens.

**Olga.** Privet! I am Olga, you two must be from Vorogovo, the town up the way.

**Carly.** Uh, yes! Yes we are, just a couple of villagers from the town of...Vorovorgovgovna?

**Lewis.** Too many Vorogos.

**Carly.** Anyway. Olga, we're curious about this...thing that happened yesterday. The explosion that bent over all of those trees?

**Olga.** Yes, it was very strange. There was an incredible wave of heat, and it looked like the sky had been torn open. I was worried about my chickens, but then it all ended, the heat and light went away only to be followed by a great booming crash that sounded like thunder.

(Soundbite of thunder.)

**Carly.** It has all the classic signs of an explosion. The question is, what exploded?

**Olga.** That IS the question, isn't it? Whatever it was, it caused some kind of earthquake. It shook all the buildings in town.

**Lewis.** But you didn't see anything else?

**Olga.** Only a slight ashen cloud off in the distance. It didn't last long though. A few hours later, it was gone.

**Carly.** Okay, so something explodes, it lights up the sky, there's great waves of heat and sound, some kind of shockwave that literally shakes the Earth, and then an ash cloud and that's it?

**Olga.** That is all, yes. Though I can also tell you about the effect it had on my chickens. Alexei was very distraught, he clucked all night. Vronsky the rooster seemed to love it, but Tatiana she was not so happy about it, she hasn't laid any eggs since the thing and.

(Soundbite of chicken clucking.)

**Lewis.** Um Carly Q? Can I take to you in private?

**Carly.** Dah, dah, dah. What is it?

**Lewis.** Not that I don't love our chicken farmer friend here, but what if we fast forward to a later date on the file? Like when that scientist Leonid Kiluk came to investigate?

**Carly.** Oh yeah, good call!

**Carly.** We thanked Olga, wished her luck with his chickens and walked back to the elevator.

**Lewis.** Hope Tatiana feels better soon!

**Carly.** The other date on the file was in 1927, so I punched in the coordinates and,

**Lewis and Carly.** Dasvidaniyaaaa.

(Soundbite of elevator travel noises.)

**Carly.** We stepped back out of the elevator at a different spot, much closer now to ground zero, and with our clothing now looking a tad more modern. It was 1927, after all.

**Nibbles.** Oh look, those must be the scientists.

**Carly.** There were a dozen or so people nearby. We started walking over.

(Soundbite of walking.)

**Lewis.** Notice anything funky about the trees here? The ones we saw before had all been flattened, but these.

**Carly.** Are all standing straight up!

**Nibbles.** And without their branches! They look like telephone poles. Without the "Have you seen my cat" posters.

**Lewis.** So weird! What do you think caused it?

**Carly.** Im guessing the explosion, but I'm not quite sure why it wouldn't have flattened the trees the normal way like those other ones we saw.

**Lewis.** Uh-oh, Nibbles I think it's time to hide again.

**Carly.** Nibbles ducked down into my bag just as the scientists saw us.

**Leonid.** Hello there, who are you two?

**Carly.** Uh, we are,

**Lewis.** Just, you know, a couple of.

**Carly.** Villagers! From the town of (whisper to Lewis) don't make me say it again.

**Leonid.** You have no need to lie. You were sent here by the ruling party of our new Soviet Union to keep tabs on us, no? Check up on our work!?

**Carly.** Uh, yep! You caught us, we're just a couple of party members here to make sure your investigation is going well.

**Leonid.** It is going very well, your superiors have no need to worry.

**Carly.** Hm excellent. Then Leonid, can you tell us what you've found so far?

**Lewis.** Yeah, we've noticed these trees that look telephone poles. What's the story there?

**Leonid.** Yes, the still-standing trees. A real mystery, no?

**Carly.** Big time. Also, shouldn't there be some kind of crater or something? Usually when something explodes it leaves a big hole in the ground.

**Leonid.** You are very perceptive, I have wondered the exact same things. No wonder the party chose you to come check on us!

**Carly.** Oh stop. Pshaw.

**Lewis.** Ok so about the explosion?

**Leonid.** Right, yes. What you have said about the crater is true. Upon first hearing of this event, my initial supposition was that this was caused by a meteor. But if that were the case, there would indeed be a very large crater here.

**Lewis.** So maybe it wasn't a meteor after all?

**Leonid.** This is what I now wonder myself.

**Carly.** So what could it have been instead? Maybe some kind of hidden volcano?

**Lewis.** Explosion of gasses?

**Carly.** Alien spaceship that was about to land and its thrusters created the giant blastwave?

**Leonid.** Excuse me? Did you just say aliens?

**Carly.** Yeah, you know, just, like, as a theory?

**Leonid.** I feel I must ask, who exactly is it that sent you here?

**Carly.** Um, the ruling party of the new Soviet Union?

**Leonid.** Names. I want names.

**Carly.** Uh.

**Lewis.** Nice try Mr. Comrade Kulik sir, but we can't tell you that.

**Carly.** That's right.

**Lewis.** Not under any circumstances.

**Carly.** Not a one.

**Lewis.** Luckily for you, we've actually gotten all the info we need. So we will be leaving.

**Leonid.** That is all?

**Carly.** That's all. Bye!

(Soundbite of walking.)

**Carly.** Nice save Lewis. And just as we got out of earshot of the scientists,

**H-dad.** Analysis complete!

**Lewis.** Yes! H-dad what have you got, what exploded here?

**H-dad.** A most likely explanation for the Tunguska Event is an explosion that occurred in the air well above.

**Carly.** Wait!

**Lewis and Nibbles.** What?

**Carly.** I think I may have just figured it out. Remember Odie's riddle?

**Lewis.** Umm.

**Carly.** "Don't forget to look up!" Lewis and Nibbles both looked up at the sky.

**Lewis.** Uh. It's just an empty sky.

**Nibbles.** Pretty nice day actually!

**Lewis.** But there's nothing up there.

**Carly.** Exactly! This might seem random, but just go with me. Remember our adventure trying to figure out what happened to the dinosaurs?

**Nibbles.** Woowe. Who could forget that?!

**Carly.** Well I got really into asteroids again after that, for like a whole week I stayed up late in bed each night reading about them, imagining myself as an interplanetary asteroid scientist flying through the galaxy in my brand new super,

**Nibbles.** Earth to Carly. Can ya get to the point?

**Carly.** Uh yeah, sorry. Here's the important part, in one of those books, I read about something called "meteor air bursts."

**Lewis.** Say what about a what-burst?

**Carly.** A meteor air burst. It's when a meteor coming in through Earth's atmosphere is so big and so fast, it heats up the air around it until it's literally ripped apart by its own speed.

**Lewis and Nibbles.** Whoa.

**Carly.** Yeah. If this happened in the air a few miles above Tunguska, it could explain what happened here, AND why there's no impact crater.

**Lewis.** So you're saying there's no crater on the ground, because the meteor exploded in the sky?

**Carly.** That is what I'm saying.

**Lewis.** Okaaaay, well H-dad? Is Carly right? Can this possibly be true?

**H-dad.** H-dad seriously impressed. High five emoji. Ten points to Team Carly! Scientists believe a space rock that was roughly one hundred and thirty feet wide exploded in the sky above Tunguska. This meteor air burst theory explains all of the available evidence.

**Carly.** Yes! I knew it!

**Lewis.** Then what about those telephone pole-looking trees? How are they still standing?

**H-dad.** The shockwave from the meteor was so fast that, for the trees directly underneath the explosion, the branches broke off before they could transfer the momentum of the shockwave to the trunk of the tree. Similar effects have been observed in other meteor air burst events more recently. Explosion emoji!

**Nibbles.** Oo that must have been one fast shockwave!

**H-dad.** While there is still some debate among scientists about what caused this explosion, the meteor air burst hypothesis remains the most widely accepted theory.

**Lewis.** Wow. I guess you were right Carly!

**Carly.** YES! Way to go me! High five to myself!

**H-dad.** Incoming message from BUTTHED HQ.

**P.A. Voice.** Attention Butthead employees: 5 minutes until the end of “eat like an astronaut” lunch break.

**Lewis.** Guess it’s time to head back.

**Carly.** Ah mumblecrust. I didn’t even get to try any Pirozhki. They’re like little pies.

**Nibbles.** That sounds delicious. I’m a big fan of,

**Everyone.** Whoaaaaaa.

(Soundbite of elevator travel noises then ding.)

**Odie.** Hello you three. How was Russia?

**Carly.** Amazing! Not only was the weather surprisingly warm, but I think we may have figured out what caused the Tunguska Event!

**Odie.** Oh?

**Lewis.** To be clear, Carly’s the one who figured it out. But she did do it with a little help from your riddle.

(Soundbite of wind chimes.)

**Odie.** Don’t forget to look up!

**Carly.** First of all, Lewis thank you for the street cred. And he’s right. That was the missing piece of the puzzle. What happened is called a meteor air burst, it’s when a meteor explodes up in the sky, not on the ground!

**Odie.** How fascinating!

**Carly.** It really goes to show you, how sometimes you're so busy looking down at your feet,

**Lewis.** OR looking at a screen playing a game on a hand-held device.

**Carly.** You're talking about me playing Hungry Snake all the time, aren't you?

**Lewis.** Ya think?

**Carly.** Yes I do think, therefore I am. Guilty as charged. But the point is, if you never look up, you might completely miss what else could be happening!

**Odie.** Very well said. I'm glad you had such an enlightening time looking up. And a warm visit to Russia!

**Carly.** Thank you Odie.

**Odie.** Have a pleasant rest of your day.

(Soundbite of walking.)

**Carly.** We left Odie to head back to my desk, but Lewis wanted to make a quick detour to the kitchen.

**Lewis.** I've got a new idea for what might be causing our mystery footprint.

**Carly.** Oh yeah?

**Carly.** Back in the kitchen corner, I looked down at the footprint, expecting Lewis to point out some new detail. But instead,

**Lewis.** Look up.

**Carly.** Huh?

**Lewis.** Yes! Look there, right above the footprint!

**Carly.** By asteroid's thunder. Lewis you're right! On the ceiling above the footprint was an air vent, and one corner of it was a little leaky, we could see some water condensing on the edge.

**Lewis.** The footprint's not a footprint at all. It's a series of water droplets that landed in the dust in the shape of a weird footprint!

**Carly.** (laughs) So it is! Turns out the truth about this was right above us the whole time.

**Lewis.** Fancy that!

**Carly.** Another mystery solved! Huzzah! We high-fived, and laughed that it had taken us so long to figure it out. But truly such a great, and simple, piece of advice from Odie. I'm gonna take a walk outside.

**Lewis.** Bye Carly Quuu!

**Carly.** Later Lewis! Get some fresh air. And take a long break from Hungry Snake.

(Soundbite of door opening.)

**Carly.** Well with the mystery of the strange footprint solved, that puts us back at square one for solving the OG mystery of the letter writer. The hunt continues. And so does the solving of more time-sealed mysteries. I think I'll leave my game of Hungry Snake off for a while too, so I can concentrate on "looking up." You should give it a try sometime. You'll never know what or who you might see. (Soundbite of birds.) Oh look, a bird. Hi Mr Blue Jay. Until next time this is Carly Q, signing off. And remember, you never heard this.