

[00:02:49.20] Allison: Oooh.

[00:02:51.18] Daniel: 35 degrees Celsius.

PART OF IT IS ALREADY DRIED UP

Allison: You guys, look. [walks to 3 oz puddle] Part of it is already dried up.

Allison: Yeah.

Chase: No that part never got covered. Well. Don't put your shadow on it.

[00:03:07.10] Allison: Umm.

[00:03:08.19] Daniel: So, Chase, that is 35 degrees Celsius. About 35. Like (inaudible)

Allison: K, so we're at 20.

Allison: 20 minutes.

Daniel: 20 minutes?

[00:03:23.02] Allison: Should someone go ask Ms. H if we should wait out here-

[00:03:27.12] Chase: Yeah we have to wait.

Student: It's a nice run around.

Allison: Why, why would we wanna run?

[00:03:34.16] Chase: I dunno. It's a waste of time.

Daniel: No! Don't! (inaudible)

[00:03:41.03] Chase: Okay this puddle [3 oz] made a weird shape. That puddle [6 oz] made (oblong?)?

Allison: Okay. Write that down.

[00:03:48.20] Daniel: It's [3 oz] definitely thinning out.

Allison/Allison: Yeah- (inaudible)

Chase: This one [6 oz] isn't really thinning out.

Allison: No it is. It's running out.

Chase: No, thinning out.

[00:03:59.21] Daniel: You know what I think what's (good?) I think

[00:04:02.22] Allison: This one's spreading out really quickly.

Allison: Yeah.

Chase: It looks like it's done spreading out.

Allison?: This one's because it's more water and-

[00:04:09.04] Daniel: I'm kinda glad-

[00:04:11.09] Chase: This one's [3 oz] still spreading out a little.

Daniel: I'm glad that we-

Chase: This one's [6 oz] spreading out more.

6 OZ PUDDLE STARTS STEAMING

[00:04:14.10] Allison: Oh my gosh! It's steaming.

Chase: Yep, stand away. Um, what's the time?

[00:04:23.10] Allison: Time is 27 minutes.

[00:04:24.19] Chase: 27 minutes?

Allison: Yes.

Chase: Already?

[00:04:27.03] Allison: No. Three minutes have passed. We have 27 minutes left.

Chase: Oh.

Allison: [giggles]

[00:04:31.23] Daniel: No Chase. Do you-I don't think it's the amount of heat. Just how much it takes to heat it up. So like, let's say--

[00:04:38.21] Allison: Yeah Chase say it took three minutes for it to start steaming.

Daniel: For puddle six, for the six-

Remy: That one's evaporating quickly.

[00:04:46.28] Allison: Is that one [3 oz] steaming?

Remy: Whoa.

[00:04:56.01] Allison: Yeah it's steaming. A little.

Chase: Is it more or less?

Allison: Not as much as that because that's more (water?).

[00:05:01.29] Daniel: You know what I think it is? I don't-right now I'm starting to think that it might not be how much um, how much water. But it might be how, or it might be how much water, but it might be the, it might not be time. It might be how much time it takes for the water to get to a certain, (Chase: this one looks like it's spreading out) like to get like to a certain amount of degrees.

[00:05:23.06] Remy: You can tell it's like been right there because it's darker. A little bit

darker than the other-

[00:05:28.25] Chase: This one's.

[00:05:30.10] Allison: That one's [6 oz] spreading out a lot quicker cuz it's more water.

Remy: It's evaporating still.

Chase: Whoa. That one's steaming.

Remy: Yeah that one you can tell it's steaming.

[00:05:37.16] Victoria: I'm sorry. Um, when you say it's steaming, what do you see?

Chase: Looks like these little-

Daniel: Like conden-

Chase: Yeah it's these little-

Daniel: Water vapor

Chase: Things going in that direction

Allison: Like, like [gesturing upward]

Daniel: The water vapor.

Chase: Yeah you can see a little water vapor.

Daniel: I-you know what I think you see-

[00:05:54.07] Allison: Cuz it looks like-

Chase: I can see a little-

Allison: I don't see it anymore though.

[00:05:57.13] Victoria: Okay, where do you guys see it? I'm having trouble. Oh oh! Oh there. Okay.

[00:06:04.06] Daniel: I think it's, um. You might see it better now because there's a wind. A small wind.

Chase: I don't know which direction.

Allison: Um. 25 (inaudible).

____IT'S OBVIOUS ONE WITH LESS WATER WOULD EVAPORATE QUICKER____

[00:06:21.10] Chase: Yeah this whole part of this one [3 oz] is really dry. And it seems like it's about to dry right along there.

[00:06:28.01] Allison: Yeah, so I think that we shoulda-we shouldn't have done the amount because it's kind of obvious that the one with less water would evaporate

quicker.

Remy: So what should we do?

Allison: What?

[00:06:43.13] Remy: What should--

Chase: That one's still spreading.

[00:06:49.07] Chase: That one's still spreading a lot.

[00:06:52.04] Allison: This one is, I don't think it's (inaudible) anymore.

Chase: Well that's because there's less water.

[00:07:02.00] Daniel: Well, but I think it's not exactly time. I think, I don't think time has an affect on it. I think it's like, it takes however much time it takes for water to get to a certain degree temperature then it will start evaporating.

?: Okay.

[00:07:22.28] Allison: Umm. Yeah we've done umm 6 minutes.

[00:07:31.25] Daniel: Wait. Chase, why don't you write it's slightly breezy.

Chase: Um, windy.

Daniel: Yeah.

[00:07:40.10] Allison: You can totally see that this one has just. See it use to be, it used to be all out here and now it's dry. Like.

[00:07:50.25] Chase: Okay, what's the time again?

Allison: It is 6 minutes. Let's check on this one.

[00:08:01.11] Allison: For this one [6 oz] um the outer one's drying first.

[00:08:07.03] Daniel: Yeah you can see it coming up.

Allison: This one's still spreading a little over here. But over here (Chase: that one's gone), it used to be out here. (Daniel: yeah). And then I think cuz it's slanted maybe-

[00:08:20.05] Chase: That one's slanted too. That's why they both came this way.

IS IT ACTUALLY EVAPORATION OR IS IT JUST SLIDING

[00:08:21.18] Daniel: One thing I'm wondering is, is it, is it actually evaporation or is the water just kind of sliding, eh the water over there--

[00:08:28.18] Allison: I think it's both. (Daniel: yeah) It's sliding so there's less water and um (Daniel: yeah, so there's) and it's easier for it, it's faster. Yeah.

[00:08:37.15] Daniel: Yeah. I think that's the depth now. How deep it is. Even if nothing's, if most um, two cups, it might if one is three inches deep and one is one inch deep. The one inch cup might evaporate faster.

[00:08:54.11] Chase: After our experiment is over we'll be able to tell if it's evaporation by touching it and seeing if it's really hot. Then it probably would be evaporation (Daniel: yeah). If it's not really hot then it's just sliding and probably drying on the asphalt.

[00:09:08.11] Daniel: Well right now my, just even stepping on--

[00:09:10.18] Allison: This one has after eight minutes, this one half of it is gone (Remy: yeah). So for, Chase?

[00:09:18.03] Chase: More than half like.

[00:09:20.05] Daniel: Um, (Remy: more than half) I think that

[00:09:20.29] Remy: Like two thirds.

Chase: That one's gonna go soon.

[00:09:22.28] Daniel: D'ya know what I think it is. I think it's maybe heat because, while we were walking up here my, if you stand in place for a few minutes, your feet start to heat up.

[00:09:30.28] Chase: Yeah and that one (Allison: yeah my feet are burning) and this one would be thinner because if there's less water so (Daniel, Remy: yeah)

[00:09:36.24] Remy: And it would just.

Daniel: What time is it? or

[00:09:39.16] Allison: So write for three ounces that um, after eight minutes, like um almost two thirds has dried up, or evaporated.

[00:09:51.11] Daniel: That is, and you can see how kind of so, right there's kind of (inaudible) (Remy: yeah).

[00:09:58.25] Chase: This one's starting to dry off.

[00:10:01.20] Allison: Twenty-one and a half minutes left.

[00:10:04.04] Daniel: Why don't we touch one of the areas like right around here

[Chase, Daniel, and Remy touch the asphalt where the puddle has already evaporated.]

[00:10:09.17] Daniel: Is it? Yeah that's pretty hot.

[00:10:10.18] Allison: Well I think all the asphalt is hot.

[00:10:14.10] Chase: Um, the part where it dried is cooler.

[00:10:16.28] Remy: Yeah but if you put one hand one here [evaporated spot on asphalt], one hand on here [regular asphalt], this part [the regular asphalt] is hotter.

[00:10:22.01] Chase: Just by a little. (Daniel: You know what I think it is?)

[00:10:24.21] Allison: Maybe it, maybe it also um...

Daniel: The water kind of is a little bit of a block (Allison: yeah). It blocks the ground a little bit but.

[00:10:31.07] Chase: Let's try that with the other one.

[00:10:32.24] Allison: Maybe [she touches the regular and then evaporated spot twice]..maybe it's because it kind, it soaked in more. (Daniel: yeah the water absorbed)

[00:10:39.17] Allison: Maybe it soaked in so it's, (Remy: yeah that) so it's a little also so it.

[00:10:44.20] Daniel: I think it also. (Remy: that one's a lot cooler than the ground) You know what I think it is. I think the water kind of acted like a cover for the asphalt for a few moments. So it, so that it, so this started to heat up, so it was like putting a cover over this so this doesn't heat up as fast as this. And then taking the cover off.

I DON'T THINK WE NEEDED THE SIX HOURS

[00:11:01.13] Daniel: [Ms. H says something to Daniel] Okay. (Student: Cuz it stops moving.)

[00:11:06.08] Chase: What time is it?

[00:11:06.28] Allison: It is twenty and a half minutes left. So we've done nine and a thirty.

[00:11:14.05] Daniel: Yeah, this one's [6 oz] on the last about. Would you say half of it's gone?

[00:11:20.11] Chase: That one? [pointing to the 3 oz puddle]

Daniel: This one. [the 6 oz puddle]

Allison: This one [6 oz] is about half? (Allison: Probably half)

Chase: Yeah.

[00:11:27.27] Allison: So half is gone and at...ten minutes.

[00:11:41.05] Daniel: Yeah, I don't think we needed the six hours. Well actually it might of, if it started in the morning, it might of actually. Let's say it's cooler, it might not have affected-

[00:11:52.08] Allison: This one [pointing to the 3 oz puddle]

Chase: This [3 oz] one's gone. Let's say seven eighths gone.

[00:11:55.16] Allison: Seven eighths. Seven eighths. (Daniel: uh sixth eighths) At ten minutes, three ounces was seven eighths gone.

[00:12:05.07] Daniel: Okay. Yeah. This is (inaudible). You don't really see anything left of this.

CHECKING PUDDLE TEMP AGAIN

[00:12:10.21] [Daniel leans down and touches the evaporated part of the puddle in two places.

[Allison leans down and also touches the evaporated part of the puddle. So does Remy. Chase walks to the other puddle.]

Allison: Is it cooler?

[00:12:19.26] Chase: I think it's all gonna--okay this one's a little.

Daniel: Yeah that's a little cooler.

[00:12:23.27] Remy: It's more cooler than that one.

[00:12:25.02] Daniel: D'ya wanna I think, d'ya wanna I think the difference is? I think it's the amount of, I think it's not really, I don't think its lighting because.

[00:12:32.10] Allison: Okay, so at nineteen minutes this one is.

[00:12:35.17] Chase: Like (Daniel: oh my!) , what would you say, three fourths?

Allison: Um, I say, yes, three fourths (Chase: at least three fourths). At nineteen, no.

AS SOON AS IT'S DRY WE'RE ALL DONE

[00:12:43.10] Chase: I think as soon as it's dry, as soon as it's all gone we're done.

[00:12:45.26] Allison: At eleven minutes, three fourths

[00:12:48.16] Chase: Let's try fifteen minutes instead of thirty.

Allison: Okay.

Chase: [to himself] Eleven minutes.

[00:12:55.28] Daniel: Yeah, but, but, that one's in a slow wind. I definitely doubt that the water, the water was moving.

Allison: Yeah

Daniel: Possibly

[00:13:07.13] Allison: Um nine tenths of it is gone (Chase: more than that) (Daniel: like after) eighteen and a half minutes.

Daniel: Like after maybe a few m-, like after about thirty seconds, how over towards may be drying up. That might have been the water moving this way. But all of basically evaporation have taken over all the water.

THIS ONE'S CATCHING UP

[00:13:26.22] Chase: This one's [3 oz] going pretty fast. I dunno that one might stay alive.

[00:13:30.18] Allison: Wow, this, at eighteen minutes, this is.

[00:13:35.29] Daniel: This one's catching up.

[00:13:37.16] Allison: Wow! They're, they're almost the same.

Remy: That one's the same as that (Chase: that one's about to go)

[00:13:41.14] Allison: Yeah, that one is about to go.

[00:13:43.03] Daniel: It's really weird. This one [6 oz] seems like to speed up.

Chase: Yeah that one's gone. It's not really water it's just. (Remy: yeah) Yeah it's gone.

[00:13:54.07] Allison: It's still cool.

Remy: Yeah.

Chase: We're done.

Daniel: Um

[00:13:59.03] Allison: So at seventeen and a half minutes, the three ounces was gone.

[00:14:04.00] Daniel: So it took seventeen minutes to evaporate?

[00:14:14.25] Chase: What about this one? Yeah this one's gone. (Daniel: Um, I think) I think yeah this one's gone.

[00:14:18.14] Daniel: I think you should put that one, this one [6 oz puddle] seemed to speed up after a while. I think it's that all the sudden the light--

[00:14:27.24] Allison: I think it's because it spread out a little (inaudible)

Remy: Yeah.

THIS ONE'S DEFINITELY COOLER

[00:14:30.22] Chase: This is definitely cooler (Daniel: but) than the regular asphalt, so I'd say that it's not evaporation.

[00:14:39.01] Daniel: No, then you'd see it. Then there'd be-

Allison: I think that evaporation and soaking into the asphalt because it's still cool so.

[00:14:47.08] Daniel: But slowly. See how like some spots are starting to like-I don't think it's

[00:14:51.18] Chase: But the water would be hotter if it was evaporation because there'd be a ton of heat applied to it so if this is cooler.

[00:14:56.24] Daniel: But what I'm was saying, like the water kind of (Chase: hey, this one's gone, what time?)-

[00:15:03.24] Allison: Uh, sixteen and a half minutes.

[00:15:04.19] Daniel: I think that. You know what I think it was. I don't think it went. I don't think it went. (Allison: fourteen, thirteen and a half minutes) I don't think it really went into the asphalt. But I think it acted as like a cover to block the asphalt from the sun. Don't you think?

[00:15:18.10] Student: Well you could--

Brittany: You guys got a bigger puddle.

Remy: No, it spread out.

[00:15:22.07] Brittany: I know, I know. It's probably cuz there's wind over here. Ours spread out a little bit.

[00:15:26.08] Chase: Ours was deepened. Ours was deep.

[00:15:29.21] Allison: Wait, where are you guys going?

[00:15:31.04] Chase: We're done (? : I saw some brown stuff in it)

[00:15:33.09] Allison: K, wait.

STEAM/DIED ONE MINUTE AFTER/MIRROR/REHEATING OF SPOT

Daniel: I don't really think it was steam. I think it was more like water vapor.

[00:15:36.26] Chase: This one [6 oz] died like one minute after that one [3 oz].

[00:15:39.07] Allison: Was it one minute?

Daniel: D'ya wanna think it was? (Chase: Twelve point five to thirteenth minutes.)

[00:15:43.09] Allison: Okay.

Daniel: I, D'ya almost think? I don't think that the ground absorbed the water. But I actually think the um, the ground would because water (Chase: is on it). If you ever looked on water, looked straight on water in the ocean, like your eyes are blind cuz the water's like a mirror (Chase: yeah). It might have kind of kept the sun off it. Like, hitting a giant sunglasses over the asphalt. So kind of, so the asphalt had time to like, cool down in the sun. (Remy: yeah)

[00:16:15.05] Chase: Yea so that's why it's cooler because water was just on it. It probably didn't suck it in.

Remy: Yeah.

[00:16:20.05] Daniel: Because I mean. Then after a few minutes [leans down and touches the evaporated part of the puddle] Right now these are like almost exactly the same.

[00:16:28.14] Chase: Yeah, this one's heating up again.

[00:16:30.01] Allison: But this, this part over here (Chase: yeah that part) is definitely cooler since it, that was the part (Remy: was the last to disappear).

[00:16:37.21] Chase: Yeah, but this part is starting to re-heat again.

[00:16:39.05] Daniel: Yeah, it's like really starting to heat up. And even though the (inaudible) sky.

Remy: Yeah.

[00:16:48.12] Chase: Like the same, pretty much. Right here to right here. Which this is where it died first.

[00:16:52.16] Daniel: If you look close you, it looks like some kind of, it might still be a little. Like molecules of water left right now.

[00:16:59.25] Chase: You can't see molecules.

[00:17:01.27] Allison: Okay, so I think we're done.

Chase: Yeah.

Remy: Yeah.

Allison: Okay, come on.

[00:17:06.24] Chase: And we'll write our theories when we get back.

WE ONLY NEEDED 15 MINUTES

[00:17:25.24] Chase: We stopped it at um-

[00:17:38.09] Allison: We only needed like 15 minutes. Not a half an hour.

Allison: Or six hours.

Allison: Definitely not six hours. Both of them would be gone and if we checked them at 8 o' clock and none in between the time of 2 and 8 then we wouldn't know what happened.

[00:18:05.17] Daniel: I was thinking like, let's, let's say it was 15 minutes now. It might take 30 minutes or maybe an hour in the morning because in the morning. Cuz the morning's cooler.

Allison: I think it takes 45 minutes.

Daniel: Well, yeah.

Allison: Or thirty minutes yeah.

[00:18:21.18] Daniel: I don't really think it takes an hour. Unless there's like (inaudible). But, I-is it the sun or the heat? Cuz if it's just the sun then it evaporate-then um if it, if it was the sun it could've it might've evaporated in the morning but let's say it was heat, it would evaporate slower in the morning.

[00:18:52.23] Chase: Well it depends. Is the sun out in the morning or it is uh clouded?

[00:18:57.10] Daniel: Well, let's say it's a sunny day at like 8 o'clock in the morning. Then we would put it in a spot where there's the same amount of sun. (inaudible)

EVAPORATION TIMES REALLY INTERESTING

[00:19:18.11] Chase: Okay, everyone. Write down your theories. Okay so, here's what we were at.

[00:19:30.07] Chase: Three ounces, three ounces equals one and a half, one and a half inches. Six ounces equals three inches. Both of them, both of them go where the wind goes. (Daniel: wait d'ya wanna) About thirty-five degrees celsius both of them.

[00:19:44.07] Daniel: But do you know what I thought was really interesting? Is that you would think that, let's say that three inches evaporated in five minutes. Then

wouldn't you think that the six inches would evaporate in ten minutes?

[00:19:56.07] Chase: Yeah. (Remy: wait, what was it-)

Daniel: But they really evaporated, is not double time in--I don't think. (Chase: it-)

[00:20:01.19] Allison: Uhh I think it's because it's ground.

Chase: Depends on location, I think.

[00:20:05.09] Daniel: I think how fast it's spread out and how fast it can (move?) out.

[00:20:13.09] Chase: Yeah the big one got so spread out so much that it got thin and evaporated quickly.

Chase: Okay, so three minutes for the six ounce to get to steam. Three minutes. You can just look at this later.

[00:20:26.12] Allison: Can I see?

Chase: Just look at all the stuff on it, and I'm gonna.

[00:20:30.23] Daniel: [to himself] Three minutes for evaporating

Allison: So it's three minutes for um, the three

[00:20:40.10] Daniel: I think they probably both evaporated in the same time, but the big one was more visible because it was um-

Allison: I can't read anymore.

[00:20:49.21] Chase: Can you read this, Dan?

[00:20:53.17] Daniel: Yeah I can read that.

Remy: I wanna see.

[00:20:55.23] Daniel: Um, uhhh, I'll read it out loud. Three ounces equals one and a half inches. Six inches. [to himself] Three O Z equals

[00:21:13.10] Chase: You don't all have to write that right now. Just write your theories and add that on (inaudible).

[00:21:17.22] Daniel: I want to put, um....can I see that?

[00:21:29.28] Daniel: Um, both go with wind.