

## Chapter 1 GOAL Video Case Transcript

**Kim:** That's the thing with boiling it. We've never done it before.

**Maria:** We'd still have...wouldn't we still have a mixture in the beaker?

**Angie:** Okay, guys, there's a question about boiling. We don't have any experience boiling.

**Joe:** Listen, guys. I don't think it makes a difference. We can filter out the  $\text{CaCO}_3$  and that will get rid of one substance. We'll know the mass of one, but then we've got two substances that we don't know the masses of and they're in water. Even if we boil it...

**Dan:** They're still sitting together.

**Angie:** There's still two.

**Kim:** Wait, Debbie, what were you saying?

**Craig:** Yeah, what were you saying?

**Debbie:** It's a matter of stoichiometry. <Class turns to face her.> We take the mass of the  $\text{CaCO}_3$  that we found and then convert it back into the reactants.

**Kelly:** I don't think we need to boil it.

**Nick:** She's right. She's right.

**Dan:** She's gotta be right! She's gotta be right!

<laughter>

**Dan:** We don't have enough time for her to be wrong!

<laughter>

**Kelly:** Alright, then let's go do it!

**Maria:** We did that in our other lab. We took the precipitate and converted it back to the reactants.

**Sandy:** Let's take a vote.

**Dan:** There's no vote! She's right.

<laughter>

**Kim:** No. I think I agree with...

<overlapping conversation>

**Kim:** Alright guys. Okay.

**Mary:** Are we putting and mixing it and then filtering, or are we just filtering it?

**Kim:** So that's...alright are we mixing it in the beaker before we put it in a filter?

**Sandy:** Yeah.

**Kim:** So the procedure is going to be that you're going to mix your individual group's...

**Joe:** Ooooh!

**Kim:** You're gonna mix the individual milliliters of the potassium chloride with your mixture, okay? You're pouring it in a separate beaker. And then you're going to filter it. And then from there, once you get the solid and you're able to find the mass then you're going to use stoichiometry to find out the mass of the other two.

**Angie:** And make sure you get that.

**Dan:** Run!

**Kelly:** So we're putting it in the oven.

**Kim:** Yes, we have to put it in the oven.

**Joe:** Okay, so we get the  $\text{CO}_3$ , stoichiometry will get the  $\text{Na}_2$ ...then with the  $\text{Na}_2$  we'll get the...

**Sandy:** I know how to get the mass of it. Is that what this is...wait...we just have to...I thought that we were arguing if we're boiling it or ovening it.

**Kim:** No, no, no.

**Kelly:** The boiling was because we wanted to separate...

**Angie:** Do we know what we're doing?

**Jack:** We're talking so much...we gotta go...

**Mary:** We have to go to lab.

**Angie:** We gotta go.

**Kelly:** Measure the filter paper!

<Students stand up quickly and head into lab area.>

**Sandy:** When we get it, I know how to figure it out. I just thought we were deciding whether to boil it or oven it.

**Kim and Sandy:** Bake it!

**Kim:** Well, we still have to bake it. So we need 20 minutes for that.

<all students in lab area>

**Kim:** We'll explain. Okay guys, leave at least 20 minutes. We have to have 20 minutes for it to go into the oven, okay?

**Frank:** 25.

**Jack:** Be very productive.