

## Design a Cell Phone

Name: \_\_\_\_\_

**Problem:** Senior citizens typically don't like the cell phones teenagers and college students like. You are here today to help design a cell phone that would make the elderly population feel more comfortable using it and want to purchase it for themselves.

**Research:** Really understanding the problem upfront can save you time and money. Observe the data collected below.

- **Battery Life:** Most of the population surveyed only had a preference of two hours for maintaining the life of the cell phone battery.
- **Use per Day:** On average, the surveyed population used their cell phone 10-15 minutes per day.
- **Button Size:** 75% of the population preferred an increased button size. 15% said the buttons needed to be much larger and only 1% said they could be smaller.
- **Weight of Phone:** When surveyed, the population said that they thought 85 grams was too light and 255 grams was too heavy for a cell phone.
- **Size of Phone:** When surveyed, the population said that they would prefer a cell phone to be no smaller than 4 cm wide x 10 cm long and no bigger than 6 cm wide and 13 cm long.

**Throughout the research process, the following people were interviewed. Their responses are mentioned below...**

**Interview 1:** I find these cell phones frustrating. I can't see the buttons! They're too small for my fingers, and I just don't want all these functions. I don't know what to do with them all so I'd prefer you to just get rid of them.

**Interview 2:** For the longest time, I didn't want a cell phone because I didn't want to learn how to use one. There are so many features and all I really want is to be able to dial 911 or a friend.

**Interview 3:** I can't understand why so many people spend so much time on the phone these days. Just because the phones are portable doesn't mean you have to spend your life on one! I want a simple phone I can use for emergencies and for short conversations with friends or family, like if I got lost driving to my grandkid's house or plans change for a trip we're taking.

**Interview 4:** I'm retired now, so I don't need email and texting and all that other stuff. I mostly want to be able to call out—I don't want people to be able to find me! That would defeat the purpose of being retired, in my opinion. So just give me a phone I can call people on quickly and easily. Oh, and it wouldn't hurt if the buttons were bigger.

**Interview 5:** I have a hard time using the phone I have now. I can't see the screen. It's too small and too dim to see easily, especially outside. All those little icons—I don't even know what they mean. I would probably get more out of this phone and use it more often if it were easier to use.

**Interview 6:** I'm all about having things smaller and lighter weight, but really, when the phone gets too small to see the screen or accurately use the buttons, it's time to make it a bit bigger!

**Your Job...It's all about client needs**—We want a cell phone that will meet the needs of senior citizens, 65 and

older, and help them use the product more easily. We need for the basic phone to cost less than \$100 to produce and have an acceptable battery life. Once the profit margin and other costs are added in, the phone will still have a price tag of \$200 or less for the people that purchase it. So give us something senior citizens will love!

**Directions:** Use the information provided on this handout to help you design a cell phone. Fill in the table below as you go. Be sure to draw your cell phone with accurate measurements... **and label them on your picture.** Include accurate color, shape, size, and screen features and size. Above your drawing, give your cell phone a catchy name. Below your drawing, write out a description of what your phone has to offer. Be sure to include any features it might have that would appeal to your customers and include information about battery life ease of use. This is your selling pitch!

<b>ASK</b>	What is it that your clients want? What information did you gather by reading the research? What did you learn by reading the interviews?	
<b>IMAGINE</b>	What are some specific things your clients want/need that you should keep in mind as your design your prototype?	
<b>PLAN</b>	Pick a solution. What are some features that you are going to make sure your cell phone contains?	
<b>CREATE</b>	This is where you will draw out your exact cell phone.	<b>ON THE BACK</b>
<b>IMPROVE</b>	If you were to do this again, what is something you might change?	