

## Cell phone towers.

This worksheet is based on the section of structures (pg. 82-99) as well as investing design issues (pg. 106-120).

Read the scenario below and answer the questions that follow.

### Scenario:

*A cell phone tower is needed in the town where you live. A cell phone company asks you to design a cell phone tower. The people in the town are against it as they feel it will contribute to visual pollution in the area.*

1. Write a design brief saying who will use the product, where it will be used and what it must do.  
**Design and make a cell phone tower for the town you live in.**
2. Write one constraint evident in the scenario that will influence the design solution. Remember that ***a constraint is something that limits your freedom to design a tower.***  
**People are against visual pollution.**
3. Explain the two advantages of the cell phone tower to the people in your community.  
**Allow people to send and receive messages. They are able to get cell phone signal and are able to make calls. Connect with emergency personal, this allows for a quicker response time.**
4. What do you understand by the words ***“visual pollution”***? Explain in detail.  
**Visual pollution is pollution that affect one’s visual ability (eye sight) negatively. It is the term given to unattractive visual elements such as too many poles or wires, too many cell phone towers in an area. Visual pollution is any object that is unappealing or ugly within the environment. E.g. A house in your area that is not well kept or is run down.**
5. With the reference to the cell phone design, explain what can be done to prevent visual pollution?  
**Disguise the cell phone tower as a tree so that it easily fits within the environment. Ensure that the tower is built in an area that is suitable for the structure. It can be disguised as a church bell tower, cactus, flag pole, or even a palm tree.**