



CRYSTAL CLEAR



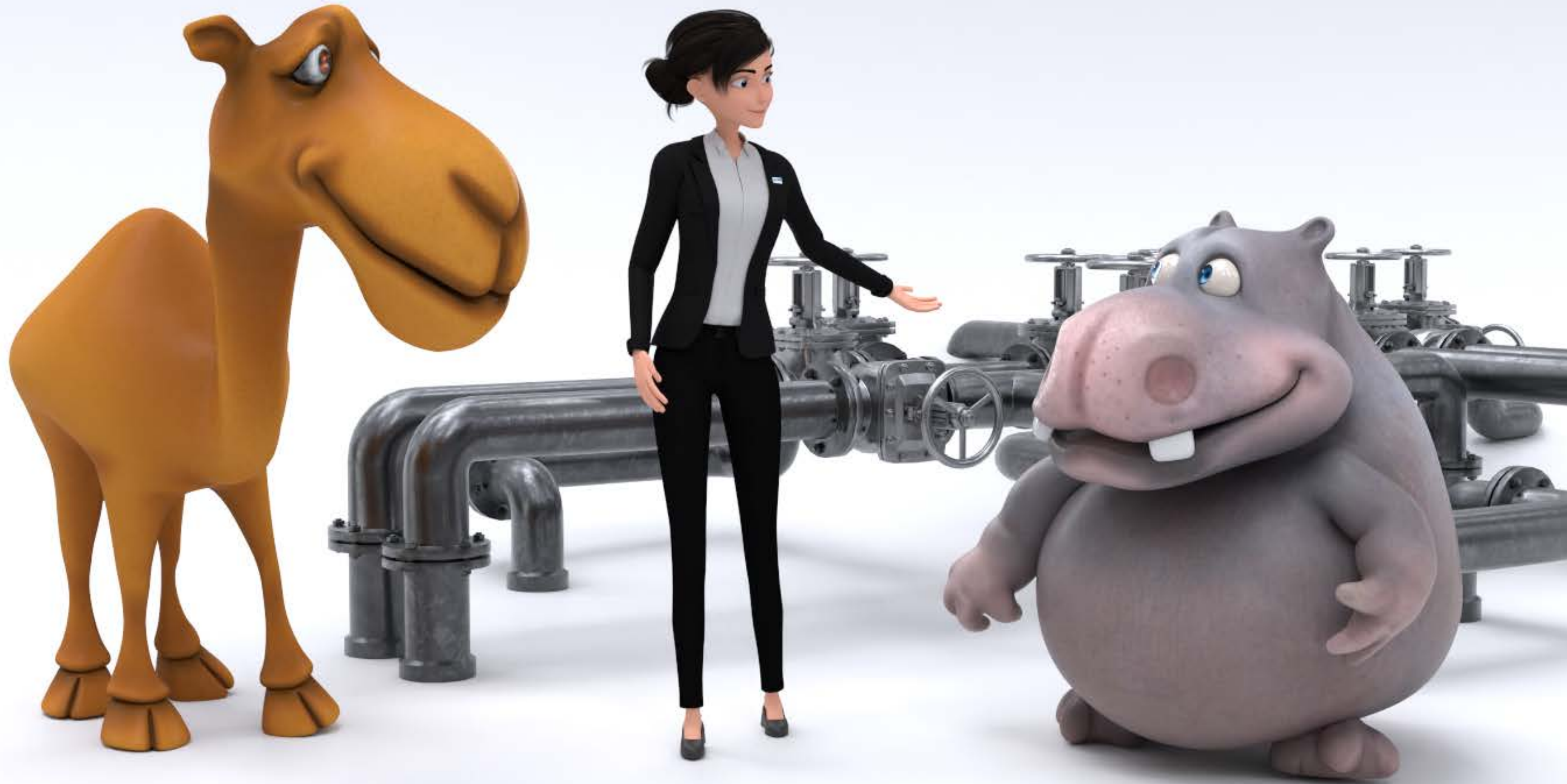
Still half asleep, Conscious Charlie trudges towards the shower, with a towel around his neck. Wasteful Wally dashes past him and slams the shower door shut.



He opens the faucet of the shower ... but nothing comes out! Outraged, Wasteful Wally is eventually joined by Conscious Charlie. Together, they open the faucet, look inside the shower head, and listen for the sound of water in the wall. It's no use: the water just won't run!



Our two companions head to the source of the problem: the drinking water treatment plant. They are welcomed by Crystal Clearwater, who tells them the problem is caused by the filters. Normally, they are changed one by one, every 25 to 30 years. Exceptionally, they must now be changed all at the same time! That explains why Mini-Town's water flow has been significantly reduced. If only a team of people could build new filters, the water flow could be restored much sooner!



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THIS IS A JOB FOR THE FANTASTIK'EAU CREW!
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THE MISSION

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MISSION 01 : CRYSTAL CLEAR



YOUR MISSION

Let's make a water filter to "fix" a section of the drinking water treatment plant.



DURATION:

45 MINUTES

MATERIALS FOR EACH TEAM OF 2-3 STUDENTS

- 1 large nail, 1 pushpin or a sharp screwdriver
- 2 glasses made of clear, flexible plastic that each hold 250 ml of liquid
- 1 paper or aluminum plate with a 6 cm diameter hole in the middle (diameter of the base of the 250 ml glass)
- Earth and leaves to cloud the water that will be filtered by the water filter. The water must really be brown, but not muddy, in order for the students to see a difference.
 - e.g. 1 cup (250 ml) of water + 1 tablespoon of earth, leaves, branches or debris, as desired.
- Students' choice of the following to filter **B** :
 - A paper coffee filter
 - Sifted sand
 - Gravel or aquarium gravel
 - Funnels or strainers
 - Cotton balls
 - Sponges
 - Cat litter (non-clumping)
 - Cardboard, paper
 - Whatever you find in the recycling bin, whether or not it works!
- 1 measuring cup **A**
- Scissors and a pencil
- Water and a bin or tray to hold the water
- A time measuring device (clock, watch, stopwatch)



WARNING

It is recommended to have an adult use a drill, a hole puncher or another tool to pierce a hole.



CONCLUSIONS

You can create a table in your classroom to write down the results of each team based on the materials and media used. This will allow you to determine which ideas are the most effective!

Why not invite each team to give an oral presentation of their water filter to Crystal Clearwater? It would be a great way to verbalize what they've learned and recognize each member's contribution to the project.

If the filter holder suggested in this guide doesn't work for you, your students can make another holder using everyday objects.