

Time	Audio	Visual
0:00-0:07	We are going to explore how microbes can grow on our hands. We will do this by growing microbes on a Petri dish	“Key Stage Three: Hand Hygiene – Petri Dish Experiment”
0:07-0:22	The resources required are two Petri dishes of nutrient agar per student. You could use white bread as a substitution. The class will also need permanent markers, soap, water and paper towels	The resources are laid out on the table: two stacked Petri dishes, a pump bottle of hand soap, a roll of paper towels, a permanent marker, and a roll of sticky tape
0:22-0:27	Please take a moment to look at the e-Bug lesson plan for information on health and safety	“Please look at the e-Bug lesson plan for information on health and safety”
0:28-0:45	Label one Petri dish clean and the other dirty. Ask students to touch different objects in the classroom that may have been touched by others such as door handles. Then ask them to place their finger firmly in the Petri dish on the dish labelled dirty.	Two Petri dishes are placed next to each other on the table. Three fingers are pressed into the agar gel inside the Petri dish, and the lid is put on and the dish is turned upside down
0:46-0:54	Now ask all students to wash their hands thoroughly with soap for at least 20 seconds	Timelapse of hands being washed with soap under running water
0:54-1:04	Ask students to place their clean finger firmly on the clean Petri dish. Place the Petri dishes in a warm, dark place for 48 hours	Three fingers are pressed into the agar gel inside the Petri dish, and the lid is put on and then dish is turned upside down
1:05-1:25	Discuss with your class. What can you see on the clean and dirty Petri dishes? What does this tell us about washing our hands? This experiment shows that microbes replicate and grow when they are not washed away thoroughly with soap for 20 seconds. This is why hand hygiene can prevent the growth and spread of harmful microbes	Two Petri dishes are laid next to each other, one shows three streaks of bacteria where the dirty fingers were pressed, and the other shows no bacteria where the clean fingers were pressed
1:26-1:33	Go to www.e-Bug.eu for more ideas on how to teach about hand hygiene	“For the full lesson plan, extension activities, work sheets, answers, and much more visit the e-Bug website: www.e-Bug.eu ”