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| Class C |
| **Fire extinguisher task**Introduction:*This is to find out what you are thinking so we can plan learning for you. To do this we need you to explain your thinking as much as you can. The only way to get it wrong is to write something that is not your thoughts.*Play videoAfter 15(?) min or when students seem to have almost run out of ideas, show key words and ask them to underline them if they have used them already and write some sentences with them in if they can. |
| **Introduction***We will be trying out some new videos designed to help learning. Your feedback is welcome so think about what works for you and how they could be improved.* *In the videos you will hear the words sort, group, classify and organise. These are all about looking for similarities and differences so that similar things can be put together.***Play video**, pausing for pair, then group discussion where video prompts**What do you know sheet**Briefly discuss questions and then students complete own record |
| **Explore/explain***Here’s a chance for you to try classifying. Look at the samples of materials for similarities and differences. What groups could you make? Record them on the classifying materials sheet (first page).*After 15-20(?) min or when students have come up with a few groups give the prompt for solids, liquids and gases.*Some people use the terms solids, liquids and gases as group names. What might their groups look like? What’s the same about all the items in each group? How do they differ? How do they differ between the groups?**We are going to watch a video on one way scientists classify materials.***Show video**, pausing where prompted for students to record their thinking.**Materials investigation record sheet (second page)**Complete this to show how you think about solids, liquids and gases. |
| **Explain - The important stuff sheet***This is a chance for you to record the main ideas so you can use them in investigations* |
| **Elaborate** **Jet trails and mystery bottle***In these tasks you don’t have all the information you would like. You need to think about what information you do have and what else this might tell you – a bit like detectives using cluse to solve a crime. The most important thing is to explain your thinking.* Record thinking on the classifying in action sheet. Support by asking questions to help them make links. *E.g. even if you’ve never heard of Bromine, what do you know about the other part of the label?*  |
| **Elaborate****Particle drama**Explain along the lines of: *Scientists believe all matter is made of tiny particles, too small to see. In cases like this scientists often use models to describe and investigate what they can’t directly see. We’re going to look at a drama model of solids, liquids and gases.*Distribute the cards randomly throughout the class and ask students to find the other members of their group, read the instructions and rehearse their act. (Could split each into two groups so that everyone gets to see their own group as well.)Run each for 30 seconds, reminding students to compare the other dramas with their own and think about the solids, liquids and gases they have seen.*What have these dramas got to do with solids, liquids and gases? Which is which? Why do you think that? What do the actors represent? How are the directions related to real life?***Complete solid, liquid gas drama sheet.** |
| **Elaborate****Honeycomb, volcanoes and water***What solids, liquids and gases can you find? How do you know?**How do you know what to look for?* |
| **Evaluate****Fire extinguisher task revisited***How do you think differently now?*Encourage explanationAdd particles to list of key words**Camp cooking task***What information can you provide about storing and transporting these fuels. Explain.*After 15 min show key words (solid, liquid, gas, particles). Underline or add to explanation |
| **Evaluate****How did you go sheet.** |