

Task Card: Ice Escape

Content: Materials and Change

Skills: Observing, estimating, measuring, investigating, recording.

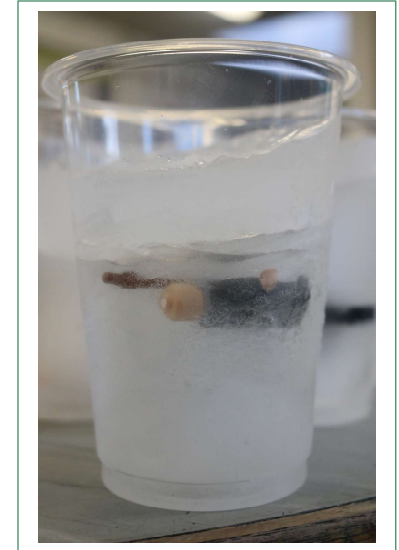
Resources: Lego characters, transparent cups, water, warm water, freezer, salt, tooth picks, droppers/spoons, vinegar, hot water bottle.

Problem: The Lego characters are stuck in ice and need to escape ASAP!

- Freeze Lego characters overnight, in transparent cups if possible.
(Just before the ice freezes nudge the Lego characters toward the centre of the ice)
- Present the problem to the children:

“Our little Lego people are all stuck in the ice and we must save them in the shortest time possible.”

- Show the children the resources available.
- Whole group brainstorm: What does ‘dissolve’ mean?
What do you dissolve at home? How do we change ice back to water?
- Ask the children to **estimate**:
 - **How long** it will take to free the Lego?
 - **How long** would it take with salt/ warm water/ vinegar?
 - **How much** salt/ warm water/ vinegar they would need?
 - **How long** they could keep their ice from melting?? (extension of task)



- If the children are working in groups they can huddle and discuss:
 - The available resources
 - What resources they want to use
- The children gather their chosen resources
- The children can measure the time from the moment they receive their iced Lego until they release it
- They can make observation records (written, pictorial or photos) at intervals along the way
- The different groups can compare their findings at the end to find the fastest way to release the prisoners!
- To wrap up, ask the children to present their findings about the quickest way to release the Lego people and to explain how they came to their conclusions.
- If the children are working independently (e.g. at home), it would be great to have two or three iced Lego people to facilitate them investigating different ways of releasing the Lego, in order to compare their own results (maybe other family members could take part too!)

Alternative task:

- How long can you keep the Lego people inside the ice outside the freezer?

Technology:

- Create a time lapse of the Ice Escape.

Assessment:



- Rubric, learning log, portfolio assessment, 2 Stars and a Wish, digital portfolio