

**Disclaimer: Activities with children must always be risk assessed, including for allergies or choking. Children must always have adequate supervision. Resources and materials must always be appropriate for children's age and stage of development.**

## Melting ice experiment

**Support children to understand the world around them with this melting ice activity.**

Images courtesy of NDNA Nursery of the Year 2017 award winners Saddleworth Stars Day Nursery, Oldham.

### Learning aims

- To explore cause and effect using ice
- To develop problem-solving skills through trial and error
- To explore different temperatures and use descriptive language to talk about experiences.



### Resources

- Ice cubes/shapes
- A tray to hold the ice e.g. fairy cake tray or Tuff Tray
- Salt
- Coldwater
- Warm water
- Sugar
- Sand
- Clock/watch
- Sand timer
- Camera to take pictures of the melting ice
- Any other resources that the children have suggested.

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## Activity outline

For this activity, you can use plain ice cubes.

- Look at a clock/watch and record the start time
- Ask the children to estimate how long they think it will take the ice cubes to melt
- Place your ice cubes into a tray and ask the children for ideas on how they may be able to melt them
  - Encourage their ideas (and gather the resources they would like to try) before you share the resources you have prepared (salt, sugar, cold/warm water etc.)
- Ensure you leave one ice cube that is left untouched so the children can compare
- Support the children to try out their ideas so they can see which substance melts the ice cubes the fastest
  - Provide a camera for the children to take photos at regular intervals of each of the ice cubes so that you can make a project book for your book corner
- Use a sand timer to check on the ice cubes at 5/10/15 minute intervals so the children can observe any changes
- Record the times that each ice cube melts and compare this to the children's earlier predictions
- Record the times in your project book along with the photographs.



## Extending the activity

- Provide different sized ice cubes for children to estimate melting times with
- Provide different shaped ice cubes for children to estimate melting times with
- Provide ice cubes with items frozen inside to add interest e.g. small dinosaurs.

## Working with babies

Provide ice cubes and/or shapes in a Tuff Tray or water tray for babies to explore. Freeze natural objects such as flowers or leaves into the ice for added interest and sensory exploration.