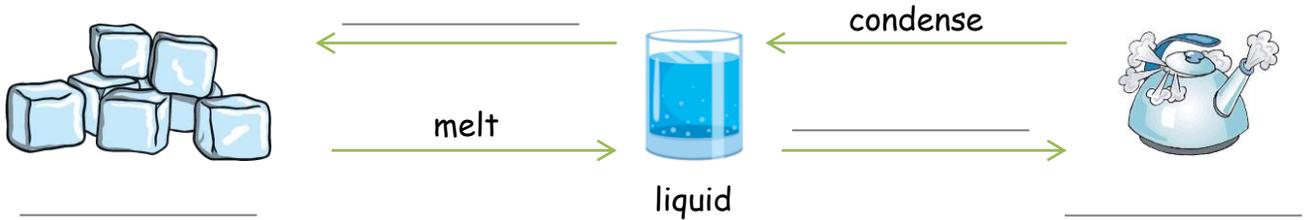


IAL: to design an investigation to answer a question

**Question:** Which materials make chocolate melt faster or slower?

We can change the state of matter by heating or cooling it.

Complete the labels on this diagram of the states of matter for water. What is each state called? What is it called when you change the state of matter?



**Your task**

Using a range of materials, create two devices. One that will help chocolate stay cool and one that will cause chocolate to melt quicker.

You will design and make two devices and then test them by putting a piece of chocolate (the same size!) in each device. Place the device in the sun and time how long it takes for the chocolate to melt. You can even place a third piece of chocolate without a device to compare your devices against. This is called a **control**.

You will need:

- chocolate e.g. chocolate buttons
- timer



Material ideas:

- cardboard, tin foil, cotton wool, tea towels, milk bottle tops, plastic cling film, paper etc. Use any materials you may have available. Be creative!

The Criteria of your Devices

Your devices must:

- Work when placed in direct sunlight.
- Be easy to see any changes that occur during the investigation.
- Not allow any leaks.



You can **not** heat up or cool the materials before the investigation.

How will you make your investigation a **fair test**?

How will you observe changes?

Which material will be good at keeping cool?

Which material will be good at getting hot?

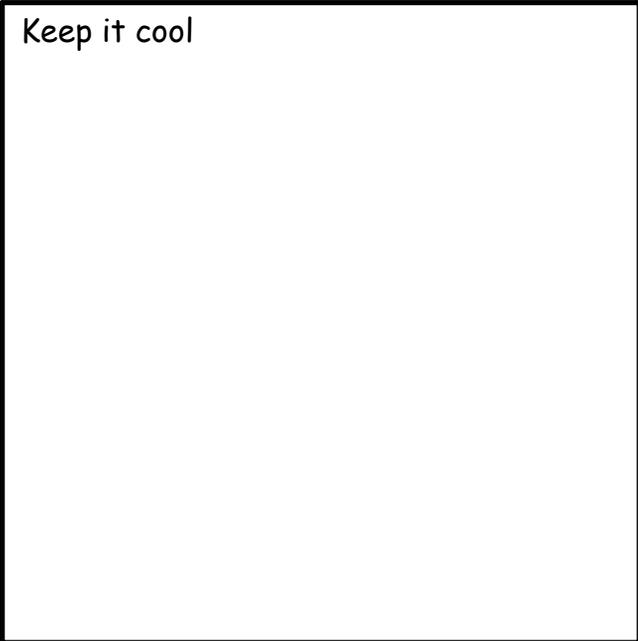
Will the weather make a difference?

## Keep it Cool or Make it Melt

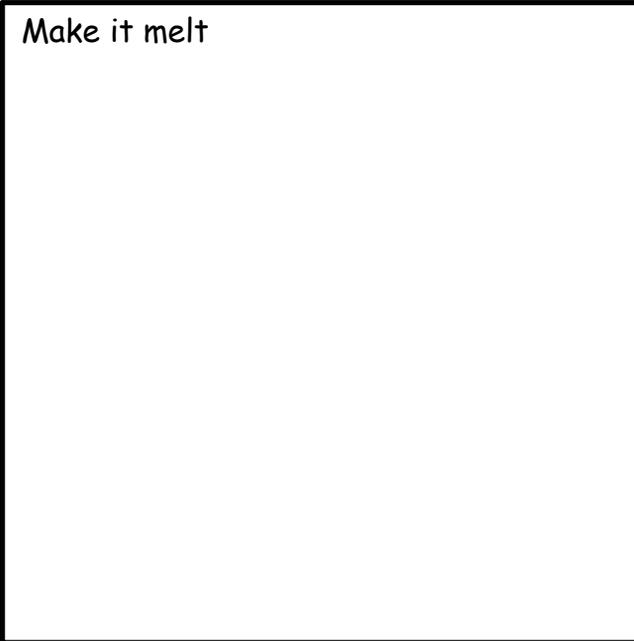
Make your observations about your devices here.

Draw and label a diagram of your devices. Make sure you label the materials you used. You could even label a photo of your devices.

Keep it cool



Make it melt



Make observations on the state of the chocolate at regular time intervals (e.g. every minute or every 5 minutes). Describe what the chocolate is like. Include what the chocolate is like at time zero.

How much time has passed	Control (no device)	Keep it cool	Make it melt

IAL: to know the names of clothes in French

Follow this link to support your learning.

<https://www.youtube.com/watch?v=rRJOtCmOVfA>

Qu'est qu'il/elle porte? (What is he/she wearing?)

Find a picture. It could be from a magazine or your own photo. Or draw a picture of a person wearing different pieces of clothing. Label the picture with the French names of the clothes.

 le pantalon	 le T-shirt	 la robe
la jupe 	les chaussures 	le short 
 les chaussettes	 le chapeau	 les lunettes
le manteau 	le pull 	la chemise 



IAL: how Hindus mark their journeys through life

Find out more about Hindu beliefs about the journey through life.

<https://www.bbc.co.uk/programmes/p02n5v2q>

<https://www.bbc.co.uk/bitesize/topics/zh86n39/articles/zmpp92p>

Explore the Hindu religious practices around the journey from life to death.

The Hindu religion and its practices are based on a set of Holy Scriptures called the Vedas. Hindus follow **dharma**, a set of duties and rules that tell them the 'right way of living'.

It is said that the performance of these duties (dharma) are according to an individual's nature. What do you think that means? Do we possess dharma?

Hindus believe that life is a journey from one body to another and each life is also a journey from birth to death.

They follow 'signposts' that allow them to get closer to God. They believe that actions have consequences, good and bad. This is called **karma**. Our actions in life determine which body we will inhabit in our next life, through the process of **reincarnation**.

When a soul has become 'one with God', that they have learnt all they can from God, they can achieve **moksha**.

Watch this [link](#) which explains the cycle of life and death for Hindus.

Draw a diagram like Vraj's picture that shows the Hindu journey of life.

Hindus believe that life is made of four stages called **Ashramas**. Each stage has its own dharma (rules) to live by.

<p style="text-align: center;"><u><b>Brahmacharya</b></u> Student</p> <p>A time of education, to prepare for family life, a job and for religious duties.</p> <ul style="list-style-type: none"> <li>• Live a simple life</li> <li>• Not own too much</li> <li>• Serve the guru (teacher)</li> <li>• Study the Vedas</li> <li>• Learn good values - be kind, keep clean, follow rules.</li> </ul> 	<p style="text-align: center;"><u><b>Grihastha</b></u> Household</p> <p>Some might skip this stage. Most marry and have a family.</p> <ul style="list-style-type: none"> <li>• Make money</li> <li>• Follow religious rituals</li> <li>• Look after your family</li> <li>• Teach your children</li> <li>• Give to charity</li> </ul> 
<p style="text-align: center;"><u><b>Vanaprastha</b></u> Retired</p> <p>Only after children have left home. Now time to focus on religious things.</p> <ul style="list-style-type: none"> <li>• Think more about religion</li> <li>• Not have very many possessions</li> <li>• Try to live a pure life</li> <li>• Go on pilgrimage</li> </ul> 	<p style="text-align: center;"><u><b>Sannyasa</b></u> Renounced</p> <p>Normally only priests! They leave their family and the family treat them as if they died! They wander, focussing on God and achieving moksha.</p> <ul style="list-style-type: none"> <li>• Stop contact with friends and family</li> <li>• Fully control mind</li> <li>• Focus on God</li> <li>• Rely on God</li> <li>• Teach others about God</li> <li>• Aim to achieve Moksha</li> </ul> 

What do you think of these life stages? Do you think there are four stages?

Create your own ashramas, describing what the rules (dharma) are for each stage. You can have as many or as few as you think is necessary.