Lesson plan by Jenny Guest, based on Hey, Water! by Antoinette Portis

Join a young girl as she celebrates that water is everywhere. It doesn’t always look the same, it doesn’t always feel the same, and it shows up in lots of different shapes and sizes. As she discovers water in nature, in weather, in her home, and even inside her own body, water comes vividly to life in this gorgeously illustrated non-fiction picture book.

- Conversational in tone and good to read aloud, but full of scientific facts narrated from a child’s perspective
- Bold and striking artwork with beautiful design make this attractive to pick up and handle
- Backmatter on the water cycle, water conservation, and more

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<th>Science: Year 4 States of Matter</th>
<th>National Curriculum Objectives:</th>
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<td>* compare and group materials together, according to whether they are solids, liquids or gases</td>
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<td>* observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)</td>
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<td>* identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</td>
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Resources:
Hey, Water! By Antoinette Portis
Images from the book
Collection of solids
Collection of liquids (water, oil, cream, milk)
Tray
Glass
Balloons

Show the children the words ‘solid’ ‘liquid’ and ‘gas’ and ask the children what they understand by each term:

*Matter makes up our planet and the whole universe. On Earth, all matter exists in one of three different states: solid, liquid or gas.*
- A solid can hold its shape (for example, water in solid form is ice).
- A liquid like water forms a pool: it flows or runs but it can’t be stretched or squeezed.
- A gas can flow, expand and be squeezed; if it is in an unsealed container it escapes (water in gas form is steam).
Show the children the front cover of ‘Hey, Water!’ and as you are reading it ask the children to identify when the depictions of water are either in a ‘solid’, ‘liquid’ or ‘gas’ state.

In small groups children use images from the book ‘Hey, Water!’ alongside photographs to sort water into different forms:

**Liquid:** tap, sprinkler, shower, hose, stream, river, ocean, lake, swimming pool, puddle, dew, tears, rain  
**Gas:** steam (kettle), clouds, fog  
**Solid:** ice cube, iceberg, ice rink, snow/snowflakes

In small groups spend time investigating each matter of state. Some suggestions are below.

**Investigating solids:**  
Collect a range of solids, observe them and gather descriptions of properties e.g. hard, some solids can be poured (sand, rice).

**Investigating liquids:**  
Gather suggestions of other liquids besides water e.g. oil, milk etc. You could hold a ‘liquids race’ and see which liquid runs the fastest down a tilted tray. This will lead to discussions about viscosity.

**Investigating gases:**  
Simply blow up a balloon and feel the air escaping.  
Put a balloon on the top of a small plastic bottle. Stand the bottle in a bowl of warm water and observe what happens.

- Discuss what the children have learnt about water in each state – gather any further questions so they can be explored in follow up lessons

**True or False:**  
Use the True or False quiz on the back page of ‘Hey, Water!’ to complete the lesson. Re-read the book to find the answers
Jenny Guest is an independent educational consultant and writer alongside her role as an Assistant Headteacher in a large London primary school. She has been a primary school teacher for ages 3-11. Jenny is also an avid reader of children’s literature and runs @bookishwaytoplay on Instagram, which aims to showcase and review the very best children’s books, as well as create accompanying supportive learning activities for toddlers, preschool and primary school age children.

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