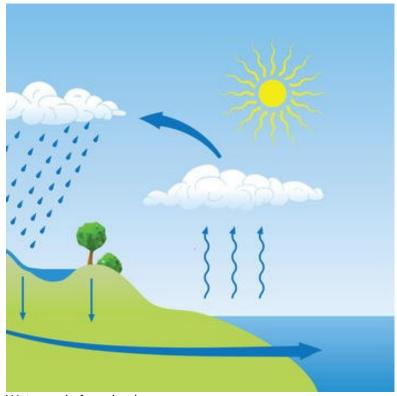
Question/Activity	Likely response	Rationale
When teaching about the Earth we often use practical activities to explore Earth processes. This example looks at changing states of water involved in the formation or rain.		Preparation for bridging from the model to real Earth processes
What is this?	A lamp, representing the sun; a plastic dish with sand and water, representing land and sea; a freezer block representing the cold sky (lying apart at the start).	Concrete preparation = asking them to describe the apparatus
Ask: What will happen when I switch on the lamp? What will I see: what will I feel?	It will shine a light and you will feel the warmth of the bulb.	Construction = applying their previous knowledge
If I leave it on for a while, what else will we see? Is anything happening that I can't see?	Water might evaporate from the "sea" producing invisible water vapour. Droplets of water might appear on the lid of the tank.	Listen to the explanation, based on previous experience of changes of state. Metacognition – debating the possibilities
If I place a cold block from the freezer on top of the lid, will this make any difference to what we can see?	Droplets of water might appear more quickly.	Metacognition – debating the possibilities
Ask "Where has the water come from which is appearing on the lid?"	Invisible water vapour exists in the air in the tank and is condensing to form water when it meets something cold.	Metacognition – debating the possibilities
We have modelled the sea, the land, the sun and the cold air high up above us. What do the water droplets on the lid represent in nature?	Clouds formed by the condensation of water vapour to form tiny water droplets.	Bridging = applying learning from the activity to the world at large.
If the tiny water droplets gradually grow to become big enough to fall from the lid, what do they represent in nature?	Rain	Bridging = applying learning from the activity to the world at large.
If the droplets fall into the "sea" or onto the "land" what will happen to them if the lamp is left switched on?	Some will evaporate and the whole process will start again. We call this the <u>water cycle.</u>	Bridging = applying learning from the activity to the world at large
Insert the labels onto the diagram of the water cycle.	Add labels one by one. Evaporation, condensation, precipitation, flow (explain new terms	Bridging = applying learning from the activity to the world at large



Water cycle for schools. https://www.wateraid.org/uk/get-involved/teaching/ks2-resources