**Make it rain, the circle of water**

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**Aim:** To explain rain and the circle of water

**Age:** 6-15

**Complexity & duration:** Low; 10 minutes

**Location:** Inside & outside

**Cost:** < £4

**Materials & Equipment:** A jar or glass, foam spray, water, food colouring (blue preferably)

**Procedure:**

* **First, pour water in the jar (fill the 4/5 of the jar)**
* **Spray the foam**
* **Put some drops of colouring**

1. **What do you see? What do you think is happening?**

**Learning outcomes:**

1. This experiment gives a visual picture of how a cloud turns into rain or snow.
2. Videos showing this experiment and explaining what is the circle of water and why is it rain, can be found here: <https://www.youtube.com/watch?v=zBnKgwnn7i4>, <https://www.youtube.com/watch?v=web6xgCGAOo> , <https://www.youtube.com/watch?v=ncORPosDrjI>

***Science fact:*** *Clouds are made of tiny water droplets which they evaporate from the surface of the earth and go through condensation in the air. The droplents in the cloud stick together and grow in size, thus their weight increase too and because they are too heavy to flow in the air they fall as rain. Later they can evaporate again and become a cloud. Therefore, rain plays an important part in the water cycle. The cycle of water includes 1. the evaporation of the water from the surface of the sea (water liquid droplets become gas) 2. the condensation on the water (water turns from gas to liquid and forms the cloud) 3. the cloud increase in size and falls to the surface of the earth in the form of rain*

## *Fact 1: The least rainy place on earth is Antarctica.*

*Fact 2: In dry, hot places, rain evaporates before it hits the ground and doesn’t make the ground wet.*

*Fact 3:* *On Venus, and other moons and planets, rain is made of other substances (sulfuric acid or methane) and not form water.*

*Fact 4: It is scientifically proven that the faster you get out of the rain the drier you will be.*

*Fact 5: Forests that experience high levels of rainfall are called rainforests.*

**RISK ASSESSMENT**

**Adult supervision is required for any experiment!**

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| HAZARD | Likelihood and Seriousness of Injury | Control Measures | Remaining Risk |
| Foam | Poisoning, eye contact | In case of poisoning:  <https://www.nhs.uk/conditions/poisoning/>  In case of contacting the eyes: rinse with water <https://www.nhs.uk/conditions/eye-injuries/> | Low to high |
| Jar | Be careful with the handling of the jar. Place it somewhere safe in order not to break. Danger of cut | If there is a lot of bleeding press the wound with a towel. Follow NHS instructions:  <https://www.nhs.uk/conditions/cuts-and-grazes/> | Low to high |

**First Aid:** In case of a minor wound call NHS 111.

**Remember - never do experiments alone!**