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| water cycle | 12.4.2018 |

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| Subject |  | Overview |
| |  | | --- | | Basic science | | Prepared By | | [Instructor Name] | | Grade Level | | 3 | |  | This lesson plan covers teaching content for;   1. Water cycle. 2. Rain formation. |

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| Materials Required - One cotton ball for every student  - flat pans or containers  -Cold water  -wax paper  -eye dropper  -coloured water  -ice cubes |
| Additional Resources  * <https://www.coolkidfacts.com/how-is-rain-formed/> * <https://www.icanteachmychild.com/making-it-rain/> * <https://betterlesson.com/lesson/632260/4-it-s-raining-it-s-pouring-precipitation-is-forming> * <file:///C:/Users/Maria/Downloads/LPG3and4%20From%20The%20Catchment%20To%20The%20Tap%202015.pdf> * <https://learning-center.homesciencetools.com/article/clouds-and-rain/> |
| Additional Notes |

|  |  | Teacher Guide |  | Guided Practice |
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| **Objectives** Students will be able to:   1. Make a chart of water cycle. 2. State the relationships between the formation of rain and the water cycle. 3. Understand that clouds are made of tiny droplets of water. 4. Explain how water moves from state to state in the water cycle.  Information/Instruction  1. Ask the students why they think the water cycle is important 2. Have them give a few examples of the water cycle that happens in their yard or house. 3. Explain that the water cycle is important to our environment because it provides animals and plants with a constant cycle of water. 4. Water contains many nutrients and minerals that are important to the survival of plants and animals. |  | **Day 1/Lesson 1- 20 Mins**   1. Give each student a cotton ball to hold. Tell them to pretend that they are holding a cloud. 2. Ask them how the cloud feels: heavy or light, soft or hard. Instruct the students to place the "cloud" (cotton ball) gently over the cold water. 3. Explain that water that has evaporated has traveled up to the cloud and it is a lot colder up in the sky, so the vapor turns into water, and it is filling up the cloud. 4. Ask: Can you see the "cloud" (cotton ball) filling up with the water. 5. Ask the students to gently pick up the "cloud" (cotton ball) from the pan. 6. Ask: How does the "cloud" feel now? Light or heavy. Warm or cold? What is happening with the water? Yes, the water is dripping from the "cloud". Why? 7. The cloud cannot hold all that water, its too, too, heavy. 8. Ask what do we call when water falls from the clouds because they are too heavy with water? 9. Yes, you are right, rain! It is raining! And what happens to the water? Yes, it is coming right back into the pan, and the pan could be a stream, river, ocean or the ground.   **Day 3/Lesson 3- 15 mins**   1. Cut a black paper to fit halfway around a jar, leaving about one inch of space at the bottom of the jar. Tape it in place on the jar. 2. Add about two inches of warm water to the jar. 3. Fill a metal bowl or tray with ice cubes. 4. Light a match and hold it inside the jar for a few seconds and then drop it into the water. 5. Quickly cover the jar with the container of ice. 6. Look into your jar from the open side (so that the black paper makes a background at the back of the jar) and have your students’ watch what happens. 7. Students should start to see a cloud form! As the cloud gets bigger, it will be easier to see. 8. To see the cloud even better, turn off the lights and shine a flashlight into the jar towards the black paper. 9. After having your students watch your cloud for a while, you can take the container of ice off of the jar and watch the cloud rise up and disappear! |  | **Day 2/Lesson 2- 20 mins**   1. Group the students into 4 groups. 2. Hand out colored water, wax paper squares and eye droppers to each group. 3. Have each group use eye dropper to place several drops of colored water on wax paper (spread out). 4. Ask them, what can you observe about your water drops? **What happens when water droplets come close to each other?** (They stick together and get bigger – this is a property of water called cohesion.) 5. **Ask how does this relate to condensation?** **Any other ideas? What do we absolutely need to form clouds?** 6. Have each group draw a picture of condensation occurring (either in nature or like in the class activity/experiment today).   **Day 4/Lesson 4- 20 mins**   1. Explain to the students that they will be acting out the water cycle. 2. Split the class into four groups. 3. Each group should be allocated one stage of the water cycle. 4. Make sure that the other groups don’t know what stage it is – you could write each stage on a card and put it in an envelope, so that other groups can’t see or hear what has been given to them. 5. Each group should then think of actions they could use to represent the stage. 6. Once they have decided on their actions, they should share them with the rest of the class who have to guess what stage of the water cycle the group is representing. 7. Each group should then teach the action to the rest of the class to create a dramatized water cycle. |
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| Assessment Activity  1. Describe the process of rain formation. |  | Assessment Activity |  |  |
| Summary |  |  |  |  |