



## Watermill

### HOW TO CREATE YOUR ELEMENTS

**Disclaimer:** The activities require water, so don't forget to give the necessary instructions for safety and the smooth running of the activity.

#### STORAGE

For this activity, you must have plenty of different materials in your box. We are recommending you to use a shoe box (or a box that big) to store it.

#### CRAFT THE ELEMENTS

##### A. Storytelling elements

1. Print out the annexe Watermill\_storytelling elements. Ideally, you can print the first and second pages on thick paper (at least 200 gr), or you can print it on regular paper and glue the figures on cardboard.
2. Cut out the figures.
3. Attach a wood dowel to the back of each puppet.
4. Build the watermill, cutting the four indicated lines (you should have a square)
5. Cut the six indicated lines.
6. Fold the dotted lines.
7. By placing glue on the indicated squares, create the house.
8. Make the hole with a hole punch.



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9. Attach the wheels to the house with a split pin.
10. The second sheet: fold the dotted lines and place the mill where the indication is.

## B. Experiences feel and sense the power of water

You'll need various materials for this activity (feel free to add any you already have or can think of): syringes, garden hose, watering can, flexible hose, balloon, and water pistols.

1. Gather all the materials and arrange them on the various tables
2. Form groups of students and rotate them through the different experiments

### Example experiment :

- Feel the stream of water from a syringe or hosepipe and try to apply resistance;
- Feel a balloon being inflated by water pressure.

## C. Experiences observing the force of water

You'll need various materials for this activity (feel free to add any you already have or can think of): syringes, ping-pong balls, straws, cups, plastic trays, small plastic objects, and sand.

1. Gather all the materials and arrange them on the various tables.
2. Form groups of students and rotate them through the different experiments.

### Example experiment :

- Spin a ping pong ball using a syringe, a straw and a cup and test the conditions under which the ball spins faster or slower (→ Conclusion: The rotation works better when the jet is directed at the centre of the ball);
- Leave a trace in the sand with different objects;



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- Move objects (of varying weight) in a plastic tray using different water flow rates.

## D. Build the watermill

To build the mill, you'll need yoghurt pots, scissors, scotch tape, a camembert box (or a similar box), a fairly thin stick and two large plastic bottles.

1. Cut a hole in the centre of the box the size of the diameter of the branch.
2. Tape the yoghurt pots around the edge of the box.



Figure 1 Le moulin à eau des CM1 – Productions M1 Vannes & Lorient. (2021, March 29). <http://blog.espe-bretagne.fr/prodm1vannes/le-moulin-a-eau-des-cm1/>



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3. Put a small amount of water (or sand) in the two large bottles.



Figure 2 Le moulin à eau des CM1 – Productions M1 Vannes & Lorient. (2021, March 29). <http://blog.espe-bretagne.fr/prodm1vannes/le-moulin-a-eau-des-cm1/>

4. Make a hole that goes through both bottles at the same height.
5. Pass the stick through the hole in the box and then through the holes in the two bottles.
6. Place your mill on a plastic tray, pour water over the yoghurt pots and watch your mill turn!



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