

Snowfall Gauge STEM Activity

A snowfall gauge provides an exciting STEM opportunity for young scientists.

Children can use engineering skills to design and build their snowman using durable, winter-proof materials. Once the snowman gauge is complete, children make predictions and observe how the snow piles up around it daily. This activity encourages weather observation and scientific thinking.

What you need:

- Body Material - Plastic picnic plates, reusable outdoor plates, corrugated plastic lawn signs cut into circles, cardboard painted white and covered with packing tape to weatherproof, or thin wooden disks cut into circles (painted white or left natural)
- Decorating materials - permanent markers, outdoor acrylic paint or paint pens, waterproof glue/hot glue (adult use only), buttons, foam shapes, black foam presentation board cut into a black top hat, orange craft foam sheets for a carrot nose, different coloured foam sheet cut for a scarf.
- For mounting the snowman: a wooden stake, garden stake or a bamboo pole (available a dollar stores) and zip ties, waterproof tape and/or screws (adults only.)
- For measuring snowfall: measuring tape, plastic rulers/yardsticks or you can measure the buttons from the bottom up and write out the inches/cm with permanent marker directly on the snowman.



What to do:

1. Prepare the snowman. Choose any of the "body material" options that work best for you and create your snowman. Cut out three circles (smaller one for the head and two larger ones for the body.)
2. Have children draw or paint eyes, mouth, buttons and/or a scarf (permanent markers or outdoor acrylic paint/paint pens work best outdoors.) If using foam craft paper/foam board, either pre-cut the items ahead of time and have the children attach or using child friendly scissors, cut and attach their pieces using waterproof glue.
3. Optional: write measurements from the bottom of the snowman where the buttons are in permanent marker or attach a ruler/tape measure to keep track as the snow builds up around your snowman.
4. Adults only: lay the snowman flat and attach the snowman to a stake that works best for you with materials such as zip ties, or waterproof tape and/or small screws. Make sure the snowman stands straight and is sturdy.
5. Once attached push the stake deep into the ground so the snowman stands upright.
6. Before the next snowfall, invite children to make predictions about how much snow they think will fall and record predictions on a chart or whiteboard. Then compare predictions to their measurements. As the snow melts have them predict how low the snow will melt to.

Adapted from: <https://preschooltoolkit.com/blog/how-to-make-a-snowman-craft-to-measure-snowfall/>

weewatch.com

