

## Teaching Guide: Matter Expedition



Thank you for choosing Matter Expedition! We invite you to join our team member, Professor Roper, as she creates a video blog (Vlog) all about Matter! We have sent Professor Roper out on assignment to learn about matter and how heat (thermal) energy can affect the states of matter. Students will follow along on Professor Roper's journeys and may even be called to help her complete her mission.

### Pre Activities:

Vocabulary Review- solids, liquids, gases, melting, freezing, condensing, boiling, evaporating, burning, friction, and electricity

- Professor Roper Video Blog (Vlog Number 1) This needs to be played before our program.

### Before the Program Instructions:

- Print and cut Matter Expedition Notes – 1 per group or 1 per student (DO NOT pass this out until instructed to)
- Students will need scrap paper or journals to gather their observations
- Talk with the students about the program- "Roper Mountain Science Center has sent one of their instructors on an expedition to study matter. We're going to follow along to see what we can learn." Play video before the program.

### Instructions for Day of the Program:

- Arrange students in 4 – 5 groups
- Each group and student will ideally be visible from the webcam.
- Do not distribute Matter Expedition notes until told to do so.
- Distribute scrap paper or journals and pencils to each student

### Post Activity

- Create a vlog (Flipgrid works well) explaining a how heat (thermal energy) effects matter.
- Design a device to help Professor Roper keep her water from freezing.
- **Career Connection**
  - Scientist
  - Engineer
  - Vlogger (Video Blogger)

# Properties of Matter Expedition Notes

Matter is \_\_\_\_\_

## 3 States of Matter

