Conducting the Tomatosphere Experiment

The Tomatosphere™ experiment is a ‘blind’ test; teachers and students will not know the origin of the different types of seeds until the experiment is completed and the teacher has submitted the results. One set of seeds is the control group and the other set of seeds has been to the International Space Station (ISS). Each class enrolled receives two packages with a total of approximately 60 seeds – 30 of each of the two types – the “control” group (untreated) and the “space” seeds. *Note that the seeds are packed by weight so, there can be a +/-5 variance in the number of seeds you receive.*

1. Use peat pellets/pods to germinate the seeds. You will need one peat pellet/pod for each seed planted. This is the best medium for germinating the seeds. Potting soil is usually not as successful.
2. Because the tomato seeds will normally germinate in 5-7 days, it is recommended that the seeds be planted on a Wednesday or Thursday, and NOT before a holiday Monday. This will allow the students to see some of the germination process taking place the following week.
3. Try and keep both sets of seeds in a similar location. However, they do NOT require sunlight to germinate and direct sunlight should be avoided. If the air outside the school is cold at night, do not leave the peat pots along the windows unless protected from the cold. Newspaper between the windows and the plants will help.
4. Carefully label the seeds. They can be randomly placed in one location, but you must know exactly which seeds are which.
5. Soak the peat pellets for about 20 minutes or until fully saturated.
6. **Individually, press seeds into peat pellets to a depth that is about the same as the length of the seed (2-3 mm).**
7. Keep the peat pellets moist, but not wet. Mist the peat pellets with a spray bottle or add water to the tray in which the peat pellets are located.
8. Remember to water the peat pellets before leaving for the weekend and as soon as possible upon return..
9. Record germination information for 3-4 weeks or for 5 days after the LAST seed germinates. Details about recording your information and submitting your results can be found in the section ”Recording and Submitting your Results”.
10. [Submit your results online remembering that this part of the experiment is to be completed by the TEACHER](https://www.firsttheseedfoundation.org/tomatosphere/submit-results/)