
Particular



Concepts

PK - Secondary

SANDBOX PARTICULATE PHYSICS ACTIVITIES

SAND BOXERS - HIGH SCHOOLERS

Pre School -- Intermediate -- 12th Grade

ELsie Spry

The National Education Standards provide guidelines for teaching various subjects, including science as well as a coherent vision of what it means to be scientifically literate for students in grades K-12. To view the standards, visit <http://www.nap.edu/readingroom/books/nse/>.

The Particular Concepts activities address the following National Education Standards as compiled in the accompanying chart:

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|---------------------------|--------------------------------------|
| 1. Communication | 7. Models |
| 2. Computation | 8. History/Nature of Science |
| 3. Design and Systems | 9. Physical Properties of Materials |
| 4. Energy/Energy Transfer | 10. Science and Philosophy |
| 5. Forces | 11. Science, Technology, and Society |
| 6. Measurement | 12. Scientific Inquiry |

National Science Education Standards Concept Chart

Activity	1	2	3	4	5	6	7	8	9	10	11	12
1. Sand Train				•	•		•					•
2. Holey Tower			•	•	•	•	•		•			•
3. Marble Run			•	•	•		•		•			•
4. Piling It On 1-2-3			•	•	•	•	•		•			•
5. Moving Walls			•				•					•
6. Milk Carton Run			•	•	•		•		•			•
7. Sliding Box		•			•	•	•		•			•
7.1 Ramp Force		•	•		•	•	•					•
8. Angle-of-Repouse		•				•	•		•			•
8.1 Spry Valve Applied		•			•	•			•			•
9. Density		•			•	•			•			•
10. Rankine Unchained		•	•		•	•			•			•
11. Spry Retaining Tower			•	•	•		•		•			•
12. In the Groove					•		•					•
13. Scientific Discovery?	•							•		•	•	•
14. Ancient Mystery		•	•	•	•	•	•	•	•		•	•
A Short Inductive Time Line								•				