

NGSS MS-PS3-3

Curriculum Bundle

Thermal Energy Transfer Design Projects

- ✓ 3 Activities
- ✓ Everything You Need to Teach NGSS MS-PS3-3



Resources Included

✓ 3 Activities

- The Insulator – Thermal Insulator Challenge
- Thermal Energy Change Reactions Experiments and Demonstrations
- Solar Oven STEM Engineering Challenge

The Insulator – Thermal Insulator Challenge

- ✓ Classroom Ready - Just Print and Go!
- ✓ Active Engagement - Keep Students' Attention
- ✓ Direct Video Link Included

[WATCH VIDEO](#)



Teach With A Pencil

Includes Word and PDF Versions

Designing a Thermal Energy Transfer Device Using Chemical Reactions



- ✓ 4 activities
- ✓ 2 endothermic and 2 exothermic reactions

Teach With A Pencil

SOLAR OVEN ENGINEERING CHALLENGE

MIDDLE SCHOOL



CHALLENGE

TWF

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The Standard is Explained and the Resources it Incorporates are Outlined

Next Generation Science Standards Package MS PS3 Energy

MS-PS3-3. Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.* [Clarification Statement: Examples of devices could include an insulated box, a solar cooker, and a Styrofoam cup.] [Assessment Boundary: Assessment does not include calculating the total amount of thermal energy transferred.]

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Who is this Bundle for?

- **Teachers who teach middle school science and use the NGSS**
- **Teachers who want multiple resources at their fingertips including lessons and a variety of activities, in order to meet the standard**
- **Teachers who don't have time to develop their own resources or organize what to teach and when**