

# Mini-Map for SCI.EE.MS.PS3-3

Subject: Science

Physical Grade: 6–8

## **Learning Outcome**

DLM Essential Element	Grade-Level Standard
SCI.EE.MS.PS3-3 Test and refine a device (e.g., foam cup, insulated box, or thermos) to either minimize or maximize thermal energy transfer (e.g., keeping liquids hot or cold,	<b>MS-PS3-3</b> Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.
preventing liquids from freezing, keeping hands warm in cold temperatures).	

## **Linkage Level Descriptions**

Initial	Precursor	Target
Identify objects/materials used to	Investigate objects/materials and predict	Test and refine a device (e.g., foam cup,
minimize or maximize thermal energy	their ability to maximize or minimize	insulated box, or thermos) to either
transfer (e.g., gloves, vacuum flask,	thermal energy transfer.	minimize or maximize thermal energy
insulated hot pad holder, or foam cup).		transfer (e.g., keeping liquids hot or cold,
		preventing liquids from freezing, keeping
		hands warm in cold temperatures).

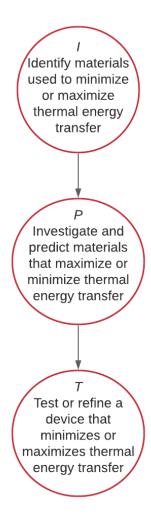
## **Instructional Resources**

Linkage Level	Instructional Activities	
Initial/Precursor/Target	N/A	
Connections		
Science and Engineering Practices	Constructing Explanations and Designing Solutions	
Crosscutting Concepts	Energy and Matter	
Released Testlets		
See the <u>Guide to Practice Activities and Released Testlets</u> .		

### **Link to Text-Only Map**

**SCI.EE.MS.PS3-3** Test and refine a device (e.g., foam cup, insulated box, or thermos) to either minimize or maximize thermal energy transfer (e.g., keeping liquids hot or cold, preventing liquids from freezing, keeping hands warm in cold

temperatures).



DLM Essential Element: SCI.EE.MS.PS3-3

Map Key

Initial

Target

Precursor

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