



Clear Sunscreen: Table of Contents

Overview of Unit

Teacher Materials.....	O-T1
For Anyone Planning to Teach Nanoscience...Read This First!.....	O-T2
Clear Sunscreen Overview, Learning Goals & Standards.....	O-T7
Unit at a Glance: Suggested Sequencing of Activities.....	O-T11
Alignment of Unit Activities with Learning Goals.....	O-T16
Alignment of Unit Activities with Curriculum Topics	O-T18
List of Sunscreen Products that use Nanoparticle Ingredients	O-T21
Clear Sunscreen Pretest/Posttest: Teacher Answer Sheet	O-T22
Student Materials	O-S1
Clear Sunscreen: Pretest	O-S2
Clear Sunscreen: Posttest.....	O-S4

Lesson 1: Introduction to Sun Protection

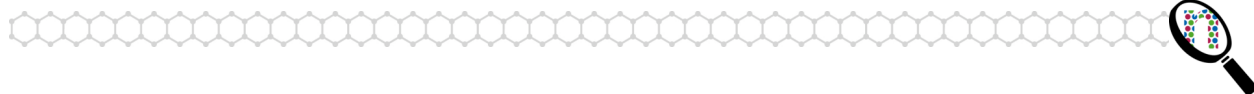
Teacher Materials.....	1-T1
Introduction to Sun Protection: Teacher Lesson Plan.....	1-T2
Sun Protection: Understanding the Danger: PowerPoint Slides & Teacher Notes.....	1-T6
Clear Sunscreen Initial Ideas: Teacher Instructions.....	1-T23
Ultra-Violet (UV) Protection Lab Activity: Teacher Instructions & Answer Key.....	1-T24
Student Materials	1-S1
Summary of Radiation Emitted by the Sun: Student Handout	1-S2
Clear Sunscreen Initial Ideas: Student Worksheet.....	1-S3
Ultra-Violet (UV) Protection Lab Activity: Student Instructions & Worksheet.....	1-S4

Lesson 2: All About Sunscreens

Teacher Materials.....	2-T1
All About Sunscreens: Teacher Lesson Plan.....	2-T2
Sunscreen Ingredients Activity: Teacher Instructions & Answer Key	2-T5
All About Sunscreens: PowerPoint Slides & Teacher Notes	2-T9
Light Reflection by Three Sunscreens: Teacher Answer Key.....	2-T38
Reflecting on the Guiding Questions: Teacher Instructions & Answer Key	2-T41
Student Materials	2-S1
Overview of Sunscreen Ingredients: Student Handout	2-S2
Light Reflection by Three Sunscreens: Student Worksheet.....	2-S3
Sunscreen Ingredients Activity: Student Instructions & Worksheet.....	2-S6
Summary of FDA Approved Sunscreen Ingredients: Student Handout.....	2-S10
Reflecting on the Guiding Questions: Student Worksheet.....	2-S11

Lesson 3: How Sunscreens Block: The Absorption of UV Light

Teacher Materials.....	3-T1
How Sunscreens Block: The Absorption of UV Light: Teacher Lesson Plan	3-T2



How Sunscreens Block: The Absorption of UV Light: PowerPoint Slides & Teacher Notes.....	3-T4
Reflecting on the Guiding Questions: Teacher Instructions & Answer Key	3-T19
Student Materials	3-S1
Absorption of Light by Matter: Student Reading	3-S2
Absorption Summary: Student Handout	3-S7
Reflecting on the Guiding Questions: Student Worksheet.....	3-S8

Lesson 4: How Sunscreens Appear: Interactions with Visible Light

Teacher Materials.....	4-T1
How Sunscreens Appear: Interactions with Visible Light: Teacher Lesson Plan	4-T2
How Sunscreens Appear: Interactions with Visible Light: PowerPoint Slides & Teacher Notes.....	4-T7
Ad Campaign Project (ChemSense Activity): Teacher Instructions & Grading Rubric.....	4-T26
Sunscreens & Sunlight Animations: Teacher Instructions & Answer Key.....	4-T31
Reflecting on the Guiding Questions: Teacher Instructions & Answer Key	4-T37
Student Materials	4-S1
Scattering of Light by Suspended Clusters: Student Reading	4-S2
Ad Campaign Project (ChemSense Activity): Student Instructions	4-S5
Sunscreens & Sunlight Animations: Student Instructions & Worksheet.....	4-S10
Reflecting on the Guiding Questions: Student Worksheet.....	4-S15

Lesson 5: Culminating Activities

Teacher Materials.....	5-T1
Culminating Activities: Teacher Lesson Plan	5-T2
Consumer Choice Project: Teacher Instructions & Grading Rubric.....	5-T6
The Science Behind the Sunscreen Quiz: Teacher Answer Key	5-T10
Clear Sunscreen Final Reflections: Teacher Instructions & Answer Key	5-T14
Student Materials	5-S1
Consumer Choice Project: Student Instructions	5-S2
Consumer Choice Project: Peer Feedback Form	5-S4
The Science Behind the Sunscreen: Student Quiz.....	5-S6
Clear Sunscreen Final Reflections: Student Worksheet.....	5-S9

One-Day Version of Clear Sunscreen

Teacher Materials.....	6-T1
One-Day Version of Clear Sunscreen: Teacher Lesson Plan	6-T2
NanoSunscreen: The Wave of the Future?: PowerPoint Slides & Teacher Notes	6-T5
Student Materials	6-S1
Summary of Radiation Emitted by the Sun: Student Handout	6-S2
Summary of FDA Approved Sunscreen Ingredients: Student Handout.....	6-S4
Overview of Sunscreen Ingredients: Student Handout	6-S5