APEX™
SCIENCE

UP, UP AND AWAY!

TRAINER'S GUIDE

Up, Up and Away!

CONTENTS

Standards and Objectives: Up, Up and Away!

	National Science Education Standards	Objectives
Breath of Fresh Air	*Abilities necessary to do scientific inquiry* • Use tools to collect data. • Use data to formulate explanations. *Properties of objects and materials* • Air has observable and measurable properties. *Types of resources* • Clean air is a limited resource necessary to meet the needs of populations. *Understanding about science and technology* • Clean air is a limited resource. • Pollution can influence the health, survival, or activities of organisms.	Children will explore what kinds of particulate air pollution can be collected and observed from various locations.
Air Pressure	*Abilities necessary to do scientific inquiry* • Use observations to collect data. • Use data to formulate explanations. *Properties of objects and materials* • Air has observable and measurable properties.	Children will explore air pressure by demonstrating how the weight of air molecules affects common objects.
Amazing Skydivers	*Abilities necessary to do scientific inquiry* • Use measuring tools to collect data. • Use data to formulate explanations. *Properties of objects and materials* • Clean air is a limited resource necessary to meet the needs of human populations. *Position and motion of objects* • Describe and manipulate objects. • Describe and measuring the location of objects. *Abilities of technological design* • Engage in technological problem solving through first hand experience using given materials.	Children will build and test a parachute to explore air resistance and the force produced by the weight of an object.
Soaring Rockets	*Abilities necessary to do scientific inquiry* • Build and improve unique designs by investigating successful and unsuccessful models. *Position and motion of objects* • Describe and manipulate objects. • Describe and measuring the location of objects. *Abilities of technological design* • Engage in technological problem solving through first hand experience using given materials. *Understanding about science and technology* • Design a solution to a problem understanding the relationship of science and technology.	Children will explore the properties of air while improving the design of a simple rocket.