

Website Pages (in Bold) followed by Science Activities	Activity Descriptions	Topics Taught by Using Activity	Topics Activities Can Supplement
SCIENCE FILE PAGES	<i>The pages were created to accompany our PBS science series on WSBE. All of the activities described here can be incorporated into your classroom lessons without having seen the entire episode.</i>		
The Great Cardboard Boat Race	This episode focused on teaching the secret as to why an object floats otherwise known as Archimedes Principal.	Sci File Home page text: Intro to principal of floatation.	
Test Your Boat Building Skills	This is a hands-on activity. Children make and test boats out of aluminum foil. It can be used to teach the design process. Downloadable graphs and data sheets make this activity more challenging.	Design Process (Engineering) Floatation	Engineering Science as Inquiry Graphing Inventing
Secret of Floatation Quiz	Watch the video about the secret of floatation and take the short quiz.	Floatation	Physical Science
Try It Experiment	An experiment using seltzer and raisins to further the understanding of the secret of floatation.	Floatation	Physical Science
Name that Boat	A quiz game that asks the player to match photos of boats with the correct name.	Boat types	Transportation Which boats use renewable fuels?
Sink or Float Experiment	A downloadable worksheet explains this experiment which is used best with grades Pre K-1. Data sheet included.	Performing an experiment including making predictions and testing them	Science as Inquiry Properties of objects and materials
Science File Video: Test Your Boat Building Skills	Children build boats out of aluminum foil. This video illustrates the "Test Your Boat Building Skills" Experiment.	See: Test Your Boat Building Skills	
Engineering Enigmas	Engineering Enigmas focused on how electrical engineers design chips. The experiment focused on tower building which is the job of a civil engineer.	Sci File Home page text: Learn about chips otherwise know as integrated circuits.	
Count the Chips	Learn to identify what a chip is and what it looks like in a circuit board.	Electrical engineering	Circuits
Name that Engineer	Take this quiz to learn about the different jobs in engineering.	Engineering Careers	Career Awareness
Design that Chip	Compare the capabilities of an early chip to one that is newer.	Chip function	Abilities of Technical Design
Experiment	This is a hands-on engineering experiment that asks the students to build a tower only using certain materials. The object is to see who can build the tallest tower.	Design Process (Engineering)	Science as Inquiry Job of a civil engineer Inventing
Science File Video: Experiment	Watch two teams of students build towers. Illustrates the "Experiment"	see: Experiment	
Great Pumpkins	Great Pumpkins took an up-close look at how a pumpkin grows.	Sci File Home page text: See a giant pumpkin and learn about tendrils.	
Can you measure circumference?	Teaches what circumference is and how to measure it.	Circumference	Using a tape measure
Rib Riddle	Learn about a part of the pumpkin and compare it to a human body part.	Parts of a pumpkin	Plants
Pumpkin Taste Test	Downloadable graph and instructions on how to do a taste test on different foods made with pumpkin.	Data Collection	Graphing Organization of Data Results could be calculated in percentages
Pumpkin Match	Put the photographs in the correct order to show the process of growing a pumpkin.	The growing process	Plants
Science File Video: Pumpkin Taste Test	Watch children participate in a Pumpkin Taste Test experiment.	See: Pumpkin Taste Test	
Spying on Spotted Salamanders	These pages teach what a vernal pool is and how is it used by mole salamanders that need it to survive.	Sci File Home page text: Learn the best time to visit a vernal pool and about the larvae stage of growth.	
What is a vernal pool?	Learn about this unique habitat space necessary for the survival of many types of animals.	Vernal pools	Habitats/Ecosystems
Animal Observation	Use this downloadable worksheet to observe animals in your own back yard.	Native wildlife Observing	Observing Animals
Animal ID	Match the picture of the animal with the correct name.	Animal Identification Respect animals in their environment	Wildlife found in the woods Human impact on animals
Salamander Challenge	A computer quiz to learn more the mole salamanders and vernal pools.	Salamanders Vernal pools	Amphibians

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Mole Salamanders	Download the mole salamanders fact finder table. This could be used to make salamander trading cards or salamander posters.	Mole salamanders Different types of one species	Classifications: Endangered, threatened and species of special concern. Consequences of loss of habitat space
Life Cycle of the Salamander	See if you can figure out the correct order of development of a yellow spotted salamander.	Life cycle of a salamander	Life cycles
Science File Video: The Yellow Spotted Salamander	Teaches about the yellow spotted salamander	Salamanders	Amphibians
Sun Sational Solar	Can the sun be used to create hot water in your home?	Sci File Home page text: Fuel options	
Challenge: Save on Greenhouse Gases!	Be a room detective and figure out how to emit less greenhouse gases into the air.	Electricity use and carbon dioxide emissions	Green practices Global Warming
Greenhouse Gases	What are greenhouse gases and where do they come from? Watch the video and take the quiz.	Greenhouse Gases	Global Warming Environmental Science
Solar Panels	How do solar panels work? Watch the videos and take the quizzes.	Solar Energy	Renewable vs. Non renewable energy Heat transfer
Can you install a solar panel?	Put the photographs of the installation of a solar panel in the correct order.	Solar Panels	Solar Energy Renewable energy
Science File Video: Solar Panel Installation	Shows how solar panels are installed.	Solar Panels	Renewable energy
Underground Connections	How does what we do in our own yards relate to a lake that is miles from our home? This episode made that connect by investigating storm drains.	Sci File Home page text: Definition of a storm drain.	
What is a Watershed	Learn what a watershed is, watch the video on watersheds, and take the quiz.	Watersheds	Environmental Science Lakes, rivers, ground water
Algae Bloom	Learn why an algae bloom occurs. See what an algae bloom looks like then watch the video and take the quiz.	Algae bloom Environmental Impacts	Environmental Science Human impact on the environment
Watersheds Worksheet	Download worksheets to help you investigate the watershed you live in.	Watersheds	Independent Investigations skills Sense of community
Watersheds Crossword	A computer crossword game to further the understanding of all concepts taught in these activities. This crossword can be printed for use away from the compute by coping it into a word document.	Storm drains Watersheds Algae blooms	Environmental science
Science File Video: Do NOT Dump	Learn what a storm drain is and how it is connected to rivers or lakes and NOT the sewer.	Storm drains Outfall	Environmental science Human impact on the environment Sense of community
Vet Detectives	Learn how much vets have to rely on their senses to diagnose the health of their patients.	Sci File Home page text: About the job of being a veterinarian.	
Five Senses	Learn more about using your five senses by downloading the Science Bug Newsletter on the Senses and doing the sense activities.	Five Senses	Human bodies
Pet Observation	Use these downloadable worksheets to record observations about your own pet.	Observing	Pet care Non verbal communication
Snap Tests	Analyze the results of a laboratory test that is used to test for heartworm. Compare the results with a chart to reveal the answer.	Comparing Analyzing Data	Career Awareness
Fleas or Ticks?	Learn more about fleas and ticks and how to spot early signs of fleas.	Animals Indicators	Health
Science File Video: New Born Puppies	See bull mastiff puppies that are just a few hours old.	Animals	Baby animals Pet care
Wastewater Investigation	Learn what happens to the water that goes down your drains. Where does it go? How it is cleaned? Then what happens to it?	Sci File Home page text: Green tip concerning what goes down the drain.	
Hidden Underground	What does water look like that has gone down our drains. Go to this page to find out.	Wastewater	Environmental awareness
Wastewater Pipes	What is the difference between sewer pipes and storm drains?	Environmental Science	Sense of Community
Down the Drain Investigation	Use these downloadable worksheets to learn what happens to the wastewater at your own home!	Wastewater Environmental awareness	Builds independent investigation skills Sense of Community
Wastewater Treatment Process	Try this fill in the blank to learn the steps of the wastewater process. Researching the wastewater process will make doing this activity easier.	Wastewater treatment Practical application of gravity	Environmental science Good bacteria Filtration/Settling
Science File Video: Wastewater Pipes	How does wastewater make it from your home to the wastewater treatment plant?	Engineering	Designing systems Construction design
SCIBUG INVESTIGATOR PAGE	Explore your own outdoor environment by using these downloadable worksheets.	<i>Activities build environmental awareness and independent investigations skills.</i>	Environmental Science
Acid Rain Investigation	Do an experiment to see how acid rain affects plants.	Acid Rain	How to conduct a good experiment

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Measuring the Age of Trees	Learn how to measure the age of trees using string and a tape measure.	Trees	Using a tape measure Forests
Favorite Bird Foods	Do an experiment to see what types of bird food the birds in your area like best.	Birds Observations	Data Collection Graphing
Mushroom Spore Prints	Learn how to make an impression of the spores underneath a mushroom cap.	Plants Spores	Can be used as an art activity