"Force 5" Pretest Please put your answer to the left of the question number.

Put your school ID or make up for yourself a five-or six-digit number: (Please remember it; we will not save your personal information) (please use the same code for both shows, pre and post test)

Don't worry if you can't answer these now; this just helps us know if you learn from the show.

What grade are you in? Boy or girl?	Teacher's nameHour:
 1. Which is the largest in size? a. Force 5 Hurricane b. Force 5 Tornado c. Force 5 Space Storm d. Force 5 Dust Storm 	 6. The energy source for the hurricane is a. the land temperature b. the ocean waves c. the ocean temperature d. the tides
2. Which year had the most Atlantic hurricanes, including Katrina and Rita? a. 1995 b. 2000 c. 2005 d. 2010	 7. Which of these is the worst place to be in a tornado? a. a storm shelter b. a basement c. an inner closet or bathroom d. the attic
 3. The major hurricane which devastated Galveston occurred in a. 1900 b. 1920 c. 1950 d. 1980 4. Which is generally the most deadly in a hurricane? a. the wind b. the water in a storm surge c. the loss of electricity d. the hail 5. Tornadoes are generally most common in a. the central US b. Florida and Georgia c. New England d. California 	 8. What role do HAM radio operators perform in a tornado? a. going door to door to warn citizens of the dangers b. analyzing the upper atmosphere c. monitoring tornado locations d. using radio waves to reduce storm severity 9. Which one of these is NOT commonly observed before tornadoes? a. hail and thunderstorm b. wall or "anvil" cloud c. green sky d. snow flurries

- 10. Energy is released explosively on the Sun in a process called a
- a. Solar Flare
- b. Sunspot
- c. Prominence
- d. Filament
- 11. A huge blast of plasma that is released from the Sun is called a
 - a. FE (Flare Explosion)
 - b. CME (Coronal Mass Ejection)
 - c. Solar wind
 - d. CEE (Chromosphere Energetic Eruption)
- 12. When a blast of plasma reaches the Earth it can cause
 - a. Bright auroras
 - b. Electrical blackouts
 - c. Failures of satellites
 - d. All of the above.
 - ____13. We are protected from the energetic particles from the Sun by our
 - a. Magnetic Field
 - b. Atmosphere
 - c. Both Magnetic Field and Atmosphere
 - d. Neither Magnetic Field nor Atmosphere
 - _14. When humans leave Earth to travel in space, which might still harm them?
 - a. Hurricanes
 - b. Space Storms
 - c. Tornadoes
 - d. Floods

_15. How often do you visit a museum or planetarium?

- a. Often (every month or two)
- b. Sometimes (every year or two)
- c. Only with school or other groups
- d. Rarely or Never

16. What would be your "dream job" if you could do anything in the world?

17. What is your most likely career?

Thank you for your participation!!

"Force 5" Pretest ANSWERS

- <u>**C**</u> 1. Which is the largest in size?
- <u>C</u> 2. Which year had the most Atlantic hurricanes, including Katrina and Rita?
- \underline{A} 3. The major hurricane which devastated Galveston occurred in
- $\underline{\mathbf{B}}$ 4. Which is generally the most deadly in a hurricane?
- $\underline{\mathbf{B}}$ 5. Tornadoes are generally most common in
- \underline{C} 6. The energy source for the hurricane is
- **___D** ___7. Which of these is the worst place to be in a tornado?
- <u>C</u> 8. What role do HAM radio operators perform in a tornado?
- **D** 9. Which one of these is NOT commonly observed before tornadoes?
- ___A __10. Energy is released explosively on the Sun in a process called a
- $\underline{\mathbf{B}}$ 11. A huge blast of plasma that is released from the Sun is called a
- $\underline{\mathbf{D}}$ 12. When a blast of plasma reaches the Earth it can cause
- \underline{C} 13. We are protected from the energetic particles from the Sun by our
- $\underline{\mathbf{B}}$ 14. When humans leave Earth to travel in space, which might still harm them?

"Force 5" Post-Test Please put your answer to the left of the question number.

Put here the a five-or six-digit number you used on the pretest: (please use the same code for both shows, pre and post test)

What grade are you in? Boy or girl?	Teacher's name
1. Which is the largest in size?	7. Which of these is the worst
a. Force 5 Hurricane	place to be in a tornado?
b. Force 5 Tornado	a. a storm shelter
c. Force 5 Space Storm	b. a basement
d. Force 5 Dust Storm	c. an inner closet or bathroom
	d. the attic
2. Which year had the most	
Atlantic hurricanes, including	8. What role do HAM radio
Katrina and Rita?	operators perform in a tornado?
a. 1995	a. going door to door to warn
b. 2000	citizens of the dangers
c. 2005	b. analyzing the upper
d. 2010	atmosphere
3. The major hurricane which	c. monitoring tornado locations
devastated Galveston occurred in	d. using radio waves to reduce
a. 1900	storm severity
b. 1920	9. Which one of these is NOT
c. 1950	
d. 1980	commonly observed before tornadoes?
u . 1980	a. hail and thunderstorm
4. Which is generally the most	b. wall or "anvil" cloud
deadly in a hurricane?	
a. the wind	c. green sky d. snow flurries
b. the water in a storm surge	a. show numes
c. the loss of electricity	10. Energy is released explosively
d. the hail	on the Sun in a process called a
	a. Solar Flare
5. Tornadoes are generally most	b. Sunspot
common in	c. Prominence
a. the central US	d. Filament
b. Florida and Georgia	
c. New England	11. A huge blast of plasma that is
d. California	released from the Sun is called a
	a. FE (Flare Explosion)
6. The energy source for the	b. CME (Coronal Mass Ejection)
hurricane is	c. Solar wind
a. the land temperature	d. CEE (Chromosphere
b. the ocean waves	Energetic Eruption)
c. the ocean temperature	_ · ·
d. the tides	

12. When a blast of plasma 14. When humans leave Earth to reaches the Earth it can cause travel in space, which might still harm a. Bright auroras them? b. Electrical blackouts a. Hurricanes c Failures of satellites b. Space Storms d. All of the above. c. Tornadoes d. Floods 13. We are protected from the energetic particles from the Sun by our a. Magnetic Field b. Atmosphere c. Both Magnetic Field and Atmosphere d. Neither Magnetic Field nor Atmosphere **Post-Test Additional Questions** Did you watch this show in a dome? _____ or on a regular TV projection? _____

Please write the most interesting thing that you learned from the show:

Check all the statements that you agree with:

- 1. learning in the dome is more fun than watching on a TV
- 2. it is easier to learn in a dome than on a TV
- 3. a dome show is more difficult to follow than one on a TV
- 4. there are things which are easier to understand in a dome than on a TV
- 5. this show has made me want to learn more about weather
- 6. this show has made me want to learn more about space weather
- 7. this show has encouraged me to become a scientist

Any other comments, suggestions, or other movies you'd like to see in a dome?

Thank you for your time! We hope you enjoyed the show!