



1. Locate and watch "Power Balance Demo" or "Power Balance Tests," in which an athletic trainer leads an athlete through a series of tests showing how the Power Balance bracelet increases the athlete's abilities. (Try phys.org > Skepticism in the Classroom > Power Balance Demonstration.)

a. What have the Power Balance people been able to do (the science that makes it work)? [You may need to pause / rewatch parts of a video segment to get answers on this sheet.]

b. To work, the product must be (select one)

worn on a bracelet placed on the head

within one to three feet of the body's energy field

within one to three inches of the body's energy field

c. With the Power/Balance, the athlete demonstrates (select all that apply).

better balance greater strength faster reaction time increased flexibility

2. Locate and watch "Power Balance Wristband on Today Tonight!"

a. What is the natural frequency of the body's energy field? _____ Hz

b. Characterize the nature of the piece.

Promotional: Supportive of the product, testimonials and demonstrations support product's claims, may include energetic, happy, upbeat music as a soundtrack

Even-handed: Opposing points of view: some for, some against, viewers left to decide for themselves, may lack a music soundtrack

Exposé: Combative interview (interrogation) forcing promoter to confess wrongdoing or evade questions, may include "dark," minor-key music soundtrack

3. Locate and watch "Power Balance Bracelets on Today Tonight 22/12/2009" (or same video clip with audio and video properly synchronized).

a. i. Melbourne chiropractor, Matt Bateman, states that he could not fake _____ % increase in strength and stability.

ii. This suggests that someone who could bench press 200 pounds **without** the bracelet could bench press _____ pounds **with** the bracelet.

b. In the skeptic's test, the volunteers were first put through their paces by the Power Balance promotor, Tom O'Dowd. Of the six volunteers, how many had positive effects?

c. When only one of the six volunteers had the Power Balance hologram, Tom was able to correctly identify that person in the

i. first test: Yes No ii. second test: Yes No iii. third test: Yes No

d. What is the best conclusion to draw from the tests?

e. Characterize the nature of the piece.

___promotional

___even-handed

___exposé

4. Locate and watch "Power Balance EFX Scam Fraud" (or equivalent Skeptic Zone / Richard Saunders "Applied Kinesiology" video clip).

a. What is the technique used by the test administrator in the "body trick" showing better balance? Show and describe how the force is applied to the volunteer in each case.



b. i. What is the explanation for the flexibility test?

ii. Recall the previous videos promoting the Power Balance device. Were volunteers ever given the device for the first test and then asked to repeat the test without the device?

5. Watch the "Power Balance Wristband on Today Tonight!" again. Pay particular attention to the balance test administered to the woman beginning at approximately 1:53. Mute the sound and concentrate on the video.

a. Which hand (left or right) does the dark-shirted Power Balance representative use to topple the woman when she's **not** wearing the bracelet?

b. Which hand does he use when she is wearing the bracelet?

c. How does this relate to Richard Saunders' explanation of how the balance trick is done? See 4.a. above.

6. Locate and watch the ESPN: Outside the Lines segment on the Power Balance Bracelets.
 - a. With more than \$17M in sales by June (2010), the company was projecting sales of how much for the year?
 - b. Research conducted at the University of Wisconsin-LaCrosse was funded by the American Council on _____.
 - c. Researchers found the \$30 Power Balance offered _____ improvement when compared to the 30¢ placebo bracelet.
 - d. The research showed athletes consistently performed better when
 - e. Dr. Porcari calls this the _____ Effect.
 - f. How do the Power Balance promoters employ this effect?

7. Power Balance declared bankruptcy years ago. Phiten necklaces and bracelets continue to sell well and can often be seen being worn by major league baseball players.
 - a. What is the science/technology behind Phiten products?
 - b. What is the name of the independent scientific organization that produces research on this topic?
 - c. Who funds (provides the endowment for) this scientific organization's research?
 - d. What do you conclude based on these findings?

X. WebQuest Extras: Locate, read, and print the first page of a reliable web page (if one exists) that

1. describes the Placebo Effect.

2. describes the Ideomotor Effect.

3. includes a scientifically valid description of the human body's energy field. (Note: Reiki is scientifically unfounded.)

4. describes a scientifically valid connection between the frequency 7.83 Hz and the human body.

5. describes how a frequency or set of frequencies can be embedded in a Mylar hologram.

6. names CNBC's 2010 Sports Product of the Year.

7. identifies the name of Sacramento's sports and entertainment complex after it was called Arco Arena but before it was called the Sleep Train Arena.