

Space Technology Spinoff Assignment

Purpose: To research a technological advance that was invented to be used in space that we use in our everyday lives now.

The project can be completed individually, in pairs, or in a group up to 4 people. Topics and presentation order will be determined by random drawing.

You will be researching a spinoff and creating a short presentation to the class. The presentation must include the following:

- A picture of the product.
- The name of the product.
- The original purpose for use in space.
- The new purpose for use on Earth.
- Assess the impact of this technology on Earth. Is this technology positive or negative? Does it improve our lives on Earth? How or how not?

The presentation will be marked with the following components in mind:

- The visual component:
 - Use large fonts, so people at the back can read it
 - Use colour
 - Be sure there are NO spelling errors
 - Be sure the background and words contrast
 - Do not over use effects
 - Use pictures effectively
- The verbal component:
 - Voice level, eye contact, presentation skills (does not read the screen or notes only) and knowledge of the research (ability to answer questions about the application)
- Time limit (4 - 6 min. Marks will be deducted if over or under the time limit)
- A print out of the presentation slides must be handed in that clearly identifies the group members who created each slide.
- **Bibliography** – must include a **minimum of 3 sources** properly cited. All information and pictures must be referenced on a **separate piece of paper** handed in the day of the presentation.

Helpful websites for research:

<http://www.nasa.gov/50th/spinoff/index.html>

<http://science.howstuffworks.com/ten-nasa-inventions.html>

<http://www.discovery.com/tv-shows/curiosity/topics/ten-nasa-inventions.htm>

Google: "Space Technology Spinoffs" for a larger list

How to reference a website for science:

The references should be in alphabetical order, and numbered.

Last name of author, First name of author. Title of web page. Date site was updated. Date you were on the site. <Web address>.

- If no author is given, use the company name
- Be sure the information is from a reliable source.
- If there is no updated date, use the date you were on the site

SNC1DI Spinoff Presentation Marking Scheme

Name(s): _____

Topic: _____

EACH person must have his or her own Rubric

SUCCESS CRITERIA for the GROUP Component of the mark

Excellent introduction	0	1	2	
Good effective conclusion	0	1	2	
Engage Audience	0	1	2	
Flow and pace	0	1	2	
The name and picture of the product	0	1	2	
Fully explains the original purpose for use in space.	0	1	2	
Fully explains the new purpose for use on Earth.	0	1	2	
Fully explains if this spinoff is positive or negative.	0	1	2	
Fully explains how this spinoff improves our lives on Earth.	0	1	2	3
Overall Impression	0	1	2	
Within time limits	0	1		
Bibliography included and correct (3 different sources)	0	1	2	

SUCCESS CRITERIA for the INDIVIDUAL component of mark

Eye Contact and Posture	0	1	2	3
Slides				
Good font size	0	1	2	
No spelling errors	0	1	2	
Good contrast	0	1	2	
Knowledge of Material does not read presentation	0	1	2	3
Speaks clearly, loudly and uses appropriate scientific language	0	1	2	
Uses computer lab time effectively	0	1	2	

Notes:

Time: _____

Total: 40

Space Technology Spin off Topics

1. Memory Foam
2. Infrared Ear Thermometers
3. Scratch Resistant Coating
4. Adjustable Smoke Detectors
5. Enriched Baby Food
6. Cordless Tools
7. Invisible Dental Braces
8. Fogless Ski Goggles
9. Shoe Insoles
10. Shock-absorbing Helmets
11. Water filters/purification
12. Safety grooving
13. Fire-resistant material
14. Tire recycling for asphalt roads
15. Light-emitting diodes (LED's)
16. Artificial Limbs
17. CAT Scanners
18. Satellite Television
19. Insulin Pump
20. Lifeshears
21. Ingestible toothpaste
22. Wheel Ball Bearings
23. Cochlear Implants
24. Anti-corrosion Coating
25. Freeze Drying Technology