Happy Feet Lesson Plan

Amount of time Demo takes: 3-5 mins.
Try this at home!

Materials
- Single shoes (4-5)
- Layout boards (4)
- Activity cards
- Design Requirement Cards

Set-up Instructions
1. Place the layout boards on the table.
2. Set the activity cards, design requirement cards, and shoes out in separate piles in the middle of the table.

SAFETY! Safe Demo!

Lesson’s Big Idea
- Think like an engineer with design processing.

Instructional Procedure
1. Have the kids take each shoe and discuss what it is used for and what was thought about when designing it.
2. Instruct them to place a shoe on each board and use the cards to fill in the activities and design requirements for each.
3. When they are done discuss with them why they arranged everything the way they did.

Assessment/sample questions you can ask
1. Why is “keeps feet dry” not a requirement for sandals?
2. Why wasn’t easy to slip on a requirement for gym shoes?
3. Would it be practical for slippers to be made with laces?
4. How does this activity apply to manufacturing in general?

Conclusion
• There is more engineering based thinking and design in manufacturing products than most people realize.

**Clean Up**

• Clean up between demos if needed. When completely finished gather all materials listed for this demo and make sure everything is accounted for. If something was used up, broken, or damaged. Let someone know so it can get replaced or fixed.

**References**


• [http://familyengineering.org/](http://familyengineering.org/)

**Next Generation Science Standards**

• K-5
  • K-2-ETS1-2
  • 3-5-ETS1-2

• 6-8
  • MS-ETS1

• 9-12
  • HS-ETS1