

Changing Seasons

We have learned about the 4 seasons—winter, spring, summer and fall. We learned that we wear different clothing depending in the season and the weather.

Challenge:

Working with a partner and using the materials and tools provided, design and create 1 free-standing paper doll with a lever operated moving part and 4 outfits, one outfit for each of the 4 seasons, that will stay on the paper doll without falling off. Observers must be able to name the season your doll is dressed for without being told.

Criteria:

- Your paper doll must be free-standing.
- Your paper doll must have a lever operated moving part.
- Your paper doll must have 4 outfits— 1 outfit for each of the 4 seasons.
- The 4 outfits must stay on without falling off.
- Observers must be able to name the season you doll is dressed for without being told.

<u>Materials:</u> You may choose from these things!	<u>Tools:</u> You may choose from these tools.
• cardboard	• scissors
• cardstock	• crazy scissors
• constructions paper—1 new sheet	• push-pin paper drill
• paper in the scrap box	• hole punch
• pipe cleaners	
• craft sticks	
• twist ties	Wither teacher assistance only--
• glue	• heavy-duty hole punch
• rubber bands	
• ribbon	
• paper fasteners—no more than 2	
• fabric scraps	

Name _____

Changing Seasons

Brainstorm solutions.

Each person will turn this paper in to the teacher.

Brainstorm and draw at least 2 ways to make your free-standing paper doll and 4 outfits. Circle the idea that you choose to use. Cross out ideas you do not like or choose not to use.

<u>Idea #1</u>	<u>Idea #2</u>

Name _____

Test your solution.

1. Did you and your partner make 1 paper doll? yes no

2. Is your paper doll free-standing? yes no

3. Does your paper doll have a lever-operated moving part?
 yes no

4. Do you have 4 outfits, one for each season—

 Winter? yes no

 Spring? yes no

 Summer? yes no

 Fall? yes no

5. Do your outfits stay on the paper doll without falling off?

 winter outfit— stays on falls off

 spring outfit— stays on falls off

 summer outfit— stays on falls off

 fall outfit-- stays on falls off

6. Can observers name the season your doll is dressed for without
 being told? yes no

Virginia SOL: Oral Language 1.1, 1.2, 1.3 □ Science 1.1, 1.7,1.8 □ Civics 1.10

STL: 1, 2, 4, 5, 8, 9, 10, 12

Name _____

Evaluate your solution.

Answer these questions. *****Turn this in!*****

What was your favorite part of this design challenge?

How could you make your product better?

If you did this design challenge again, what would you do differently?

Teacher Hints---

Ahead of time---

---Teach different ways to attach things---

*pipe cleaners

*folded tabs

*magnets

*rubber bands

*twist ties

*ribbon and string

*paper fasteners

*other ways the kids think of!

---Be sure students understand the meaning of free-standing and know how to make things free-standing. Allow them to have fiddle time making things that stand freely without leaning on or being supported by anything else.

---Be sure students understand what a lever is, that levers can be different shapes and sizes, and how to construct several kinds of levers—

*see-saw type with a paper fastener

*wheel with a paper fastener

*hinge

Allow the students to make sample levers and play with them (fiddle time!) to see what they could turn the levers in to on their own. Don't tell them ahead of time that they will incorporate a lever in to a paper doll/clothing design challenge.

---Decide how you will partner the students---Will they choose partners?
Will you assign partners?