# What to <br> clowith all <br> those apples <br> for middle schoolers 

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## Make an apple stamp tee shirt

Going on a field trip to - say - an apple orchard? Keep everyone together with this adorable apple-inspired tee shirt. You can use other shapes, too.

## Tools needed:

- Each student brings their own plain white tee shirt in their own size.
- Apple and leaf stencils or cookie cutters (no larger than an apple)
- Real apples - at least one per color.
- Fabric paints in your choice of colors
- Permanent marker
- Cardboard or posterboard


## Instructions:

1. Do ahead: Use a stencil to carve each apple (or potato) to make a stamp.
2. Dip stamp into fabric paint and let the kids design their own apple shirt.
3. Place the cardboard between the layers of the tee shirt. Then use the marker to write a common message or name of the group on the shirt.
4. Put in clothes dryer for 30 minutes to set the paints and markers.


## Go apple picking

September and October are the perfect months for an educational field trip to an apple orchard. Apples are an icon for student-teacher relationships and a symbol of back-toschool season. September 26 is Johnny Appleseed's birthday. Apple season is in full swing. And Halloween? I'm just saying. So take the class apple picking.

If the orchard has multiple breeds, bring take back as many different types as you can. Remember to label them as you pick them so you know what you have. Then when you go back, you'll have more learning opportunities.

## Back in the classroom...

1. Take a survey. Create the survey up front. Sort, wash and cut up the different types of apples. Each kid then samples the apples one at a time and completes the survey. Is it sweet or tart? Crunchy or soft? Juicy or dry? Rate how much you liked it on a scale of 1 to 5 . Then collect the surveys and see how the class or group ranked them overall.

## 2. Do science experiments.

- See which apples sink or float. Discuss why.
- Put a piece of apple in each of six glasses. Then add different elements to each, like nothing, vinegar, milk, water, lemon juice and baking soda. Record the reactions.
- Make mini volcanos inside them. (Hollow them out, sprinkle in baking soda and food coloring, then add vinegar for a lesson in acid/base reactions.


## 3. Have races:

- Balance an apple on your head" race
- Stack the apples in a tower challenge
- Pass the apples race: Two or three teams line up; first person has a full basket of apples and last person has an empty basket; first person passes the apple over shoulder to next person and so one. First full basket at the end of the line wins.

4. Make caramel or candy apples. You can buy kits in most grocery stores. Or simply enjoy fresh-picked apples with lunch!


## Apple Pie Recipe

Choose apples that hold their shape, like Cortland, Fuji, Granny Smith, or Jonathan. You can adjust the sugar up or down depending on how naturally sweet (or tart) they are.

## Ingredients:

- Prepared pastry dough for 2-crust pie
- 6 cups peeled and thinly sliced apple
- $1 / 2$ to $3 / 4$ cup sugar
- 1 teaspoon ground cinnamon
- 1 tablespoon butter
- Egg white from one egg


## Instructions:



Step 1: Preheat oven to $450^{\circ} \mathrm{F}$ ( 230 degrees C). Line a pie plate with rolled out pastry. Let excess hang over edges for now.

Step 3: Whisk the cinnamon into the sugar so it's well-blended. Then add the sugar mixture to the apples and stir so all apples are coated with cinnamon sugar.

Step 4: Dump the apples into the pastry or you can place them neatly.
Step 5: Dot the apples with butter and then cover with the top crust. You can get fancy and cut strips for a lattice look. Or just cover it and cut a circle hole in the center of the top crust

Step 6: Trim the excess pastry with a scissors so nothing hangs over from top of bottom pastry. Pinch the edges of the top and bottom pie crust together with your fingers or press down with a fork.

Step 8: Cut a hole in the center of the pie about the size of a quarter.
Step 9: Brush the egg white all over the top crust. It's okay if it gets on the apples. This will give it a nice shiny look when it's done.

Step 10: Bake at $450^{\circ}$ for 10 minutes. Then reduce oven temperature to $350^{\circ}$ and continue baking 30 minutes more. Enjoy warm with ice cream or let it cool. Serve chilled.

## Make Apple Cider without a Press

Use your favorite apples, sweet or tart. Add sugar if using tart apples. Spices are optional, but go well during the holidays.


## Equipment

- Large stock pot (with or without strainer)
- Cheesecloth


## Ingredients:

- 10 large apples (about $51 / 2$ pounds) washed and cut into quarters or smaller. (No need to peel or core.)
- 3 quarts hot water
- Up to $3 / 4$ cups sugar to taste (omit if using sweet apples.)
- 1 tablespoon cinnamon (optional)
- 1 tablespoon allspice (optional)


## Instructions:

Step 1: Add all ingredients to the pot and stir in spices. Bring to boil.
Step 2: Boil uncovered for 1 hour..
Step 3: Reduce heat, cover and simmer for 2 hours
Step 4: Strain apple pulp from the liquid.
Step 5: Line strainer with 3 layers of cheesecloth. Place strainer in a large bowl. Add apple pulp and press to squeeze out remaining liquid.

Step 6: Add squeezed liquid to original strained liquid. Stir to blend.
Step 7: Strain blended liquid one more time using fresh cheesecloth.
Step 8: Pour cider into jars or pitcher and chill for four hours.

## Plant an Apple Tree

This is a lofty goal with a long-term payoff. That's because it can take 10 years before the tree bears fruit. But before you buy seeds and plunk them in the ground, you and your middle schooler should do a little research first.

Apples can be tricky to grow because they are easy targets for disease. Commercial apple growers use harsh chemicals to keep the fruit big and beautiful. You probably want to avoid that.

Luckily, there are some (less famous) breeds that have greater resistance to disease. The include: Liberty, Pristine, Sweet Sixteen and Freedom.

Find a specialty fruit tree nursery in your area rather than going to a big box store, which would likely be limted to the most popular breeds. You want someone who can help you get what's best for your soil and climate. While you're there, ask questions.

Like whether your selected tree is a self-polinator or if it needs a second tree to grow nearby. (Can you plant two trees?) How much space do you need for each tree? Ask for other planting and care instructions and tips.

And then, many years from now, you can enjoy the fruits of your labor and remember this special project.


