

MATTERS OF FAITH LABORATORY

Golf Course Road Church of Christ Children's Ministry

Bible Background

I Samuel 18:1-12; 20:1-42

Focus

The Bond of Friendship

Memory Verse

Micah 6:8 The Lord has shown you what is good. He has told you what he requires of you. You must treat people fairly. You must love others faithfully. And you must be very careful to live the way your God wants you to.

Materials Needed

- 1 bowl and needle per student, dish soap, paper towels, Liter bottle, marble
- The Story for Children
- Jar of Bubble Base , white glue, shaving cream, baking soda, saline solution, food coloring
- 101 Amazing Illusions book



Lessons in this Rotation:

Sunday Morning:

- Museum of Biblical History:* To Obey is Better than Sacrifice
- How Great Thou Art Studio:* Friends Help Each Other
- Matters of Faith Lab:* The Bond of Friendship
- Let there be Light Theater:* Who is on the Throne?

Wednesday Night:

- Good News Game Room: Review
- World Changers Central:* Giving Friends
- Soul:* Facing the Giants
- Connect:* Humility

Sunday Rotation Schedule:

DATE	MUSEUM	ART	SCIENCE	DRAMA
4/29/2018	1st	2nd	3rd	4th
5/6/2018	2nd	1st	4th	3rd
5/13/2018	3rd	4th	1st	2nd
5/20/2018	4th	3rd	2nd	1st

Focus: The Bond of Friendship

Introduction

Can you tell me what it means to be a good friend? Allow for answers. (**Good friends are loyal, honest, fun to be with, have similar interests, understand each other, etc.**)

I wonder if any of you have a friend like this. **Allow children to share about their good friends.**

Bible Story

Let's read I Samuel 18:1-5. **Read these verses out loud yourself or have students read.**

The Bible says that Jonathan loved David just as he loved himself. What do you think that means? **Allow for answers.** What did Jonathan do for David because of his love for him? **Allow for answers. He gave David his robe, sword, bow and belt.**

Proverbs 18:24 says, "One who has unreliable friends soon comes to ruin, but there is a friend who sticks closer than a brother." It sounds like David and Jonathan were the kind of friends who "stick closer than a brother."

Science Experiments

God's creation can help us learn more about friendship. All the stuff in the universe is made out of atoms, little building blocks called elements, that are too small to see. Scientists have discovered 118 different kinds of elements. Sometimes atoms stick to each other, and become a molecule. Scientists call this process "bonding." Let's do some experiments to demonstrate this fascinating process.

We are going to use the concept of molecules that bond to explain the loyalty and friendship that bound David and Jonathan together.

We will be performing 4 science experiments to illustrate the bond of friendship through molecule bonds:

1. Float a needle.
2. Drive a marble into a bubble.
3. Saucer slime.
4. Optical Illusion Art (What is your perspective?)

Supplies:

Needle Experiment: Water and paper towels; one bowl, needle, 1 ½ sq. Paper per student, liquid dish detergent.

Bubble Experiment: Plastic liter soda bottle, small wet toy or marble, a clean jar with a lid containing one recipe of Bubble Base. (This recipe will slow down the drying time. When bubbles dry, they break.)

Bubble Base: ¼ c. Bubble mix, ¾ c. Water, 1 Tbsp. sugar or 1 package unflavored gelatin or 1 Tbsp. glycerin.

Saucer slime

One per student: Glass cup, measuring spoons, plastic spoon (for stirring), zip-lock plastic baggy.

Helpful Hints: Practice the needle and bubble experiments ahead of time. If class time is short, select just one of them to do. It is important for the square of paper under the needle to be small—otherwise it takes awhile for the paper to get wet enough to sink. We used a small square of absorbent paper towel, and it worked well. Don't give students the liquid dish detergent out until the needle is safely floating—contamination would ruin the bond and the experiment.

Float a Needle

1. ***Drop a needle into a clear glass bowl of water, to demonstrate that a needle does not normally float on water.***
2. ***Have each student fill their own small bowl or pan with water.***
3. ***Float a small square of paper towel (no bigger than 1 ½ inches) on the water.***
4. ***Place a sewing needle in the middle of the paper.***
5. ***Carefully push the edges of the paper down into the water. (This takes a little patience.) As the paper gets wet, it will sink and leave the needle floating.***

Surface tension makes it possible to float the needle on the water. The molecules on the surface of water stick close enough together that, under the right conditions, they can make something float that ordinarily would not do so.

How was David's friendship with Jonathan like this floating needle? ***Allow for answers. (The friendship of a shepherd boy and a king's son was something that was highly unlikely to happen, but it did, just like this needle, which you would not expect to float!)***

But then, something happened that could have ended their friendship, just like that. ***(Place a drop of dishwasher detergent into the water—the needle will sink like a stone.)***

Let's read I Samuel 18: 6-12.

In this part of the story, something happened that was a threat to the friendship of David and Jonathan. Jonathan's father, King Saul, became very jealous of David. He viewed him as an

enemy to his throne. Let's read about it. *(or talk about it.)*

Let's read "David's Best Friend" (p. 235-238) from The Book for Children. **Read these pages out loud.** Saul tried to talk Jonathan into turning his back on David. Would Jonathan and David's friendship survive? Let's do another experiment to illustrate how a bond can hold up, even when someone or something tries to break the bond.

Drive a Marble into a Bubble

1. Cut the bottom off of a plastic quart or liter soda bottle. All around the cut-off bottle, cut parallel slits about ½ inch apart, and ½ inch deep. Bend the edges back so that they fan out like a flower.

2. Wet an area of the tabletop with the bubble solution.

3. Dip the fanned-out end of the bottle into the bubble solution. Hold it near the wet tabletop, and blow a large bubble dome onto the table.

4. Roll a wet marble through the bubble.

Note: This experiment can take a little practice to make it work!

We did something that looks impossible! Molecules bonded to create a bubble. The marble (which represents King Saul's anger) was not able to destroy the powerful bond of friendship between David and Jonathan. These two friends stuck together with great love and loyalty. Let's do one more experiment. We will create a product that sticks together, like good friends should.

Saucer Slime

1. Combine 1 cup glue and 1 cup shaving cream in the glass bowl. Stir with a spoon until they are completely mixed.

2. Add 1 tsp baking soda to the glue solution and stir. Then add 2 tsp saline solution. The mixture will immediately start to form a blob. Keep stirring. Now add the food coloring.

3. Pick up the blob and knead it for a while with your hands.

4. Divid the blob among the children and play with it!

5. Have each child place their blob in a ziplock bag to take home.

This combination of ingredients creates a chemical reaction. The atoms bond together and create an elastic mixture that doesn't easily break.

David and Jonathan did not physically bond together, like the molecules in our chemistry experiment. But their bond of friendship proved to outlast Jonathan's life.

Let's read II Samuel 9:1-7. David and Mephibosheth.

David kept his promise to Jonathan by showing kindness to Jonathan's son.

Optical Illusions

101 Amazing Optical Illusions - Show the students some of the art on pages 50-55. Let them discover how they can see two different things in the same picture, depending on their perspective.

Now what does "perspective" have to do with the story of David and Jonathan?**(Accept all answers.)** David and Jonathan chose to see each other as friends. If Jonathan had listened to his father, King Saul, he would have viewed David as a rival for the throne. Likewise, David could have seen Jonathan as the son of his enemy. Instead they remained very close friends.

Sometimes a person may try to destroy other people's friendships. David and Jonathan didn't let that happen. Why? **(They trusted each other, and remained loyal through great odds. They did not believe the lies of King Saul.)**

Sources

Mad Professor, Mark Frauenfelder ISBN 0-8118-3554-5, p. 10-13, 17-18
101 Amazing Optical Illusions by Terry Jennings ISBN 0-8069-9463-0
Barron's Science Wizardry for Kids, by Margaret Kenda and Phyllis S. Williams ISBN 0-590-69326-3 pp. 97, 110
The Book for Children, Tyndale House Publishers, Inc. ISBN 0-8423-2145-4

