



"Don't Get Bent Out of Shape!"

The Memory Wire Devotion

Bible Verse

Peter and the other apostles replied: "We must obey God rather than human beings!" Acts 5:29

Main Spiritual Point

"Though I go through fire, God's power is higher! Even in the flame His promise is the same. Through trials you'll find, God has the power to keep us aligned."

Science Concept

This Science Devotion explores an absolutely amazing property that will literally stop you in your tracks. This phenomenon completely defies reason and will make even the most astute sit up and take notice.

Nitinol memory metal is an amazing combination of Nickel and Titanium. Shape memory is the ability of nitinol to undergo deformation (or bending) at one temperature, then recover its original, undeformed shape upon heating. As a result, the metal can be deformed in nearly any direction, yet when the alloy is heated, the crystalline planes are slid back into place and the structure reverts to its original form. Thus, the metal appears to 'remember' its original shape. William Buehler was attempting to make a better missile nose cone, which could resist fatigue, heat and the force of impact. Having found that a 1:1 combination of nickel and titanium did the job, he took a sample, folded up like an accordion, passed it around to his colleagues. One of them, held a lighter to the metal to test its heat-resistant properties. To everyone's surprise, the accordion-shaped strip stretched and took its previous shape.

You will need:

- Memory wire
- Matches
- Pliers or clamps

Difficulty & Duration:

Moderate: 15 minutes

Tips For Success:

- Flame is always an interesting item in children's ministry. Use caution!
- If you do not desire to use matches, you can also use boiling (or nearly boiling) water to provide the same effect.
- Use pliers or clamps to hold the wire as you submerge into hot water or hold over flame. Remember, metal is a fantastic conductor of heat and will become hot very fast and will burn your fingers.

The Memory Wire Devotion: What to Say to Kids

1. Read Acts 5:12. "The apostles performed many signs and wonders among the people. And all the believers used to meet together in Solomon's Colonnade." Jesus had died, was raised from the dead, the Holy Spirit had come down and the disciples were now performing amazing miracles. It was amazing! However, trouble was coming. What bad things do you think were coming?

2. Was does the big word "persecution" mean? Persecution is when someone is made fun of or even hurt because of loving and obeying God and Jesus. And that is exactly what happened to the disciples. Read Acts 5:17-18. "Then the high priest and all his associates, who were members of the party of the Sadducees, were filled with jealousy. They arrested the apostles and put them in the public jail." Why were they arrested? What had they been doing that made the bad leaders SO mad?

3. We have a very special piece of straight wire. Let's pretend this wire is actually Peter and the other apostles. They were arrested. (Bend the wire.) They were placed in jail. (Bend the wire again in another place.) The bad leaders were trying to bend and even break Jesus' people, the Apostles.

4. (Using pliers, hold the bent wire.) This bent wire makes us think of Peter and the others who had been bent and hurt by the bad leaders. (Carefully place it through the flame of a match, a candle or a blow-torch.) What happened? Did being arrested, harmed by the bad leaders and placed in jail bend or break them forever or not? What did the flame actually do to the wire? Doesn't flame usually hurt something? What did the flame do to the wire, which makes us think of Peter and the apostles?

5. Read Acts 5:19-21. "But during the night an angel of the Lord opened the doors of the jail and brought them out. 'Go, stand in the temple courts,' he said, 'and tell the people all about this new life.' At daybreak they entered the temple courts, as they had been told, and began to teach the people." The disciples were placed in jail for talking about

Jesus. Once miraculously released, did the disciples STOP talking about Jesus? What did they do?

6. The bad leaders went looking for the disciples at the jail, but to their surprise – they were missing! Soon they heard what they did NOT want to hear. Those disciples were BACK at the temple talking about Jesus. They brought them back, again, to their meeting place to tell them to STOP talking about Jesus once again!

7. Read Acts 5:27-28. "The apostles were brought in and made to appear before the Sanhedrin to be questioned by the high priest. 'We gave you strict orders not to teach in this name,' he said. 'Yet you have filled Jerusalem with your teaching and are determined to make us guilty of this man's blood.'"

8. The bad leaders were mad. They pressured the Apostles and tried to bend and break them again! (Bend the wire as much as you can in several places.)

9. (Using the pliers again, hold the bent wire and carefully place it through the flame again.) Read Acts 5:29. "Peter and the other apostles replied: 'We must obey God rather than human beings!' Peter said, FORGET IT! We will obey God not bad leaders!

10. Read Acts 5:33 and 40. "When they heard this, they were furious and wanted to put them to death. They called the apostles in and had them flogged. Then they ordered them not to speak in the name of Jesus, and let them go." What happens when someone is flogged? (Bend the wire again and then do the flame.)

11. Read Acts 5:41-42. How did the Apostles respond when they were beaten with rods across their back? Persecution happens today. Have you ever been made fun of or even been hurt because you loved Jesus? If you have not been persecuted, some day you might be. What does the wire and fire teach us about persecution? How can you grow strong as a child of God NOW so you can be ready for hard times?