



Crystal Ornaments - Science Devotion - Influence

"If the world hates you, know that it has hated me before it hated you. If you were of the world, the world would love you as its own; but because you are not of the world, but I chose you out of the world, therefore the world hates you. Remember the word that I said to you: 'A servant is not greater than his master.' If they persecuted me, they will also persecute you." John 15:18-20

"I have told you these things, so that in me you may have peace. In this world you will have trouble. But take heart! I have overcome the world." John 16:33

Main Spiritual Point:

Christians may undergo persecution or hard times simply because they believe and love Jesus. The first century church used secret symbols as a way to encourage other believers that they were not alone in the world.

Science Concept:

Have you dissolved a solid (like sugar or salt) in room temperature water, and stirred it with no solid resting on the bottom? Sure you have; this is called a "solution". Have you ever added SO MUCH dissolvable solid to room temperature water that after stirring and stirring, a pile of solid remains at the bottom of the container? Sure you have; this is called a "saturated solution". BUT, have you ever brought water to a boil and you were able to dissolve more than would NORMALLY dissolve in room temperature water? This is called a "super-saturated solution". Interestingly enough, as the hot water slowly returns to room temperature, it will no longer be able to hold that much dissolved solid in solution any longer. If a pipe cleaner is placed in the water as the temperature slowly returns to room temperature, crystals will begin to form and "come out of solution". This fun experiment makes crystalized ornaments from a dissolved solid, pipe cleaners and patience.

Time Needed:

10 minutes basic set up and 10 minutes to execute the devotion with kids. This activity requires the ornament and jar to sit completely undisturbed for 24 hours.

Difficulty:

Moderate. Requires the use of very hot or boiling water.

You will need:

- Various colors of pipe cleaners
- Dental floss
- A stick or pencil
- Mason jars
- Borax laundry detergent
- Boiling or very hot water
- Food coloring
- Patience for crystallization process

Tips for Success:

- Make sure that the shape can fit through the mouth of the wide-mouthed jar without having to squeeze through. If it can't, trim the sides down.
- Put the jar somewhere where it is safe from being disturbed. Literally! You don't even want it to be bumped! Let it stay there overnight.

Crystal Ornaments - What to Say to Kids

1. Jesus is the Son of God. Jesus did many miracles showing that he was who he said he was. But some people didn't like that. Some bad men crucified Jesus and he died on the cross, according to the plan of God. But, three days later, he rose again from the dead.
2. While Jesus and his disciples were together, Jesus promised his disciples that one day he would go to the cross and die to pay for the sins of those who would believe. He also promised they would go through hard times!
3. Read John 15:18-20 out loud. What did Jesus promise? Was Jesus persecuted? How?
4. Believers will be persecuted. That is a fact. It should not surprise us. Read Paul's words in to the believers in 1st Thessalonians 3:3-4. Also read about all the hard things Paul went through in 2nd Corinthians 11:23-30. Was Jesus telling the truth about persecution in John 15:18-20?
5. Does persecution of Christians still happen today? Do you know of any examples? Have you ever experienced hard times for loving and following Jesus? Persecution happened then, it happens today and will happen in the lives of Christians until Jesus returns.
6. Early Christians who were being persecuted made some secret codes, secret messages and secret symbols to tell who was a Christian and a follower of Jesus.
7. The use of the "Christian Fish" or The Ichthus started when the church was getting started and followed Jesus' resurrection. The early Christians were committed, but were also being harassed and persecuted. They would often draw one curved side of the Ichthus, and if the person they were talking with was a believer, that person would finish out the fish by drawing the other curved line that completed it. It was a secret "handshake" or identifier that someone was a believer.
8. Let's take a stand and tell others we are followers of Jesus! Let's make an old and secret symbol used by those who followed Jesus and paid a high price for loving Him.
9. Twist a pipe cleaner into a Cross or an Ichthus. Don't stress if the sides aren't perfectly even, little imperfections make it beautiful.
10. Tie a 4" length of string or dental floss to one side of the twisted pipe cleaner. Tie the other end to a pencil or dowel rod. You want the length of your string to be enough that it hangs into the jar but doesn't touch the bottom. Once you have your length set, remove the apparatus from the jar.
11. Bring a pot of water to a boil and pour into the jar. Add 3-5 tablespoons of borax per each cup of water and stir. It's best if some borax settles to the bottom of the jar, showing that it is a super saturated solution.
12. If you want a colored crystal ornament, stir in some food coloring.
13. Hang the pipe cleaner creation into the jar with the pencil resting on top of the jar. Make sure that you've added enough water to completely submerge the pipe cleaner.
14. Put the jar somewhere where it is safe from being disturbed. Literally!
15. The next day, check out the gorgeous crystals! Untie the string from the pencil and you've got yourself a great decoration and reminder of this important lesson.