



*Grade Level: Grade 3*

*Title:*

## **What is Friction & Friction and Reconciliation**

*Denomination: Catholic*

*Lesson ID: PS-G3-02-CA*

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## PHYSICAL SCIENCE – GRADE THREE - CA

### LESSON 2: What is Friction and Redemption and Reconciliation

**GENERAL CONCEPT:** What is friction? Is it good or bad or both?

#### SCIENCE LESSON CONCEPT

1. Friction can manifest itself in many ways.
2. Some types of friction are helpful and others are not.

#### GOAL OF SCIENCE LESSON

Student will decide if friction is good, bad, or both.

#### OUTCOME EXPECTED

1. Student will appreciate and value friction.
2. Student will see the limitation of friction.

#### RELIGION LESSON CONCEPT

1. An argument (friction) between people can bring a new relationship through reconciliation.
2. The friction between Jesus and the leaders of the people caused his passion, but brought about our redemption.

#### GOAL OF RELIGION LESSON

Student will see the good and bad of friction in our relationships with each other and our relationship with God.

#### OUTCOME EXPECTED

Students will accept difficulties in life and begin to see them as opportunities for growth and reconciliation.

## MATERIALS NEEDED

- Flint
- Steel
- Cotton
- Wood
- Water
- Pictures of sparks from ice skate sharpening or torch welding
- Science Journal Page: FRICTION
- Pen/pencil

## SCIENCE METHODOLOGY

- **ASK** the student to predict on the Science Journal Page what will happen when they rub their hands together.
- **HAVE** them rub their hands together fast and faster.
- **COMPARE predictions** with results and record—produces friction—produces heat.
- **ASK** the student to predict what will happen when you rub each of the following together:

## MATERIALS NEEDED

- Crucifix
- Story of the Crucifixion of Jesus for Children. See last pages
- Role playing scenarios for arguments and reconciliations. This is an energizing activity which helps the student internalize the teaching.
- Words of Jesus: Father, Forgive them...on cardboard. Could also just print on board in large letters.

## RELIGION METHODOLOGY

- **SHOW** the student the crucifix. ASK them to tell you the story.
- **ASK:** What did Jesus do to the people who hurt Him?
- **AFTER** the replies, put up the cardboard sign of Jesus' words.
- **ASK:** Did Jesus really mean that? (Yes.) How do you know He forgave everyone?

1. **Flint and steel on cotton**
2. **Wood and water on cotton**

**DO** the two and see if their predictions were correct.  
Observe and record

- **HAVE** the student write conclusions.
- **POSIT:** Friction can help us start a fire.

- **ASK:** Has someone hurt your feelings? Can you forgive them like Jesus did? What happens when you forgive someone? How do you feel after the Sacrament of Reconciliation? Why?
- **ROLE PLAY** the scenarios in groups of students.
- **HAVE** a short prayer service in which each student silently forgives someone who hurt them. Close with the Our Father- Sing it if you know it.
- **POSIT:** When we disagree with someone or someone hurts our feelings, we can use that happening to forgive that person and be even better friends.

## **RESOURCES, LINKS, AND COMPUTER LESSON**

### **Science Links**

(Student) Tells how friction can be good. Tells how friction can be bad.

<http://teacher.scholastic.com/dirtrep/friction/index.htm>

(Teacher) Lesson on how students around the country reported on friction.

<http://teacher.scholastic.com/dirtrep/friction/index.htm>

### **Religious Links**

(Teacher) Why we need reconciliation in our life.

<http://teacher.scholastic.com/dirtrep/friction/index.htm>

(Teacher to send home) Story of the Crucifixion and Family Activities

<http://www.dltk-bible.com/t.asp?b=m&t=http://www.dltk-bible.com/jesus/takehome16.gif>

(Teacher) Can copy and print for students. Child's version of the Crucifixion of Jesus – with a picture.

<http://www.familyhomesnetwork.com/sundayschool/biblestories/thecrucifixionstory.html>

(Teacher) Coloring page of Crucifixion to copy and print

<http://coloringbookfun.com/christian/originalimages/gd11.gif>

(Teacher) Coloring Page of Boy at the Foot of the Cross

<http://www.christiananswers.net/kids/clrpg014.html>

(Teacher) Coloring Page of Mary and John at Cross

<http://coloringbookfun.com/christian/originalimages/gd10.gif>

(Teacher) Offering the wine on a sponge coloring page

<http://coloringbookfun.com/jesus/originalimages/CRUCIFX2.gif>

## John

### Chapter 19

1

<sup>1</sup> Then Pilate took Jesus and had him scourged.

2

And the soldiers wove a crown out of thorns and placed it on his head, and clothed him in a purple cloak,

3

and they came to him and said, "Hail, King of the Jews!" And they struck him repeatedly.

4

Once more Pilate went out and said to them, "Look, I am bringing him out to you, so that you may know that I find no guilt in him."

5

So Jesus came out, wearing the crown of thorns and the purple cloak. And he said to them, "Behold, the man!"

6

When the chief priests and the guards saw him they cried out, "Crucify him, crucify him!" Pilate said to them, "Take him yourselves and crucify him. I find no guilt in him."

7

<sup>2</sup> The Jews answered, "We have a law, and according to that law he ought to die, because he made himself the Son of God."

8

Now when Pilate heard this statement, he became even more afraid,

9

and went back into the praetorium and said to Jesus, "Where are you from?" Jesus did not answer him.

10

So Pilate said to him, "Do you not speak to me? Do you not know that I have power to release you and I have power to crucify you?"

11 Jesus answered (him), "You would have no power over me if it had not been given to you from above. For this reason the one who handed me over to you has the greater sin."

12 Consequently, Pilate tried to release him; but the Jews cried out, "If you release him, you are not a Friend of Caesar. <sup>3</sup> Everyone who makes himself a king opposes Caesar."

13 When Pilate heard these words he brought Jesus out and seated him <sup>4</sup> on the judge's bench in the place called Stone Pavement, in Hebrew, Gabbatha.

14 It was preparation day for Passover, and it was about noon. <sup>5</sup> And he said to the Jews, "Behold, your king!"

15 They cried out, "Take him away, take him away! Crucify him!" Pilate said to them, "Shall I crucify your king?" The chief priests answered, "We have no king but Caesar."

16 Then he handed him over to them to be crucified. <sup>6</sup> So they took Jesus,

17 and carrying the cross himself <sup>7</sup> he went out to what is called the Place of the Skull, in Hebrew, Golgotha.

18 There they crucified him, and with him two others, one on either side, with Jesus in the middle.

19 <sup>8</sup> Pilate also had an inscription written and put on the cross. It read, "Jesus the Nazorean, the King of the Jews."

20

Now many of the Jews read this inscription, because the place where Jesus was crucified was near the city; and it was written in Hebrew, Latin, and Greek.

21

So the chief priests of the Jews said to Pilate, "Do not write 'The King of the Jews,' but that he said, 'I am the King of the Jews.'"

22

Pilate answered, "What I have written, I have written."

23

<sup>9</sup> When the soldiers had crucified Jesus, they took his clothes and divided them into four shares, a share for each soldier. They also took his tunic, but the tunic was seamless, woven in one piece from the top down.

24

So they said to one another, "Let's not tear it, but cast lots for it to see whose it will be," in order that the passage of scripture might be fulfilled (that says): "They divided my garments among them, and for my vesture they cast lots." This is what the soldiers did.

25

<sup>10</sup> Standing by the cross of Jesus were his mother and his mother's sister, Mary the wife of Clopas, and Mary of Magdala.

26

When Jesus saw his mother <sup>11</sup> and the disciple there whom he loved, he said to his mother, "Woman, behold, your son."

27

Then he said to the disciple, "Behold, your mother." And from that hour the disciple took her into his home.

28



29 After this, aware that everything was now finished, in order  
that the scripture might be fulfilled, <sup>12</sup> Jesus said, "I thirst."

30 There was a vessel filled with common wine. <sup>13</sup> So they put  
a sponge soaked in wine on a sprig of hyssop and put it up  
to his mouth.

31 <sup>14</sup> When Jesus had taken the wine, he said, "It is finished."  
And bowing his head, he handed over the spirit.

32 Now since it was preparation day, in order that the bodies  
might not remain on the cross on the sabbath, for the  
sabbath day of that week was a solemn one, the Jews asked  
Pilate that their legs be broken and they be taken down.

33 So the soldiers came and broke the legs of the first and then  
of the other one who was crucified with Jesus.

34 But when they came to Jesus and saw that he was already  
dead, they did not break his legs,

35 <sup>15</sup> but one soldier thrust his lance into his side, and  
immediately blood and water flowed out.

36 An eyewitness has testified, and his testimony is true; he  
knows <sup>16</sup> that he is speaking the truth, so that you also may  
(come to) believe.

37 For this happened so that the scripture passage might be  
fulfilled: "Not a bone of it will be broken."

And again another passage says: "They will look upon him  
whom they have pierced."

38

<sup>17</sup> After this, Joseph of Arimathea, secretly a disciple of Jesus for fear of the Jews, asked Pilate if he could remove the body of Jesus. And Pilate permitted it. So he came and took his body.

39

Nicodemus, the one who had first come to him at night, also came bringing a mixture of myrrh and aloes weighing about one hundred pounds.

40

They took the body of Jesus and bound it with burial cloths along with the spices, according to the Jewish burial custom.

41

Now in the place where he had been crucified there was a garden, and in the garden a new tomb, in which no one had yet been buried.

42

So they laid Jesus there because of the Jewish preparation day; for the tomb was close by.

**KEY WORDS**  
**PHYSICAL SCIENCE – GRADE THREE- LESSON 2 - CA**



**FRICTION**

**RUBBING**

**SPARKING**

**FLINT**

**SHARPENING**



**DISAGREEMENT**

**REDEMPTION**

**RECONCILIATION**

**RELATIONSHIP**

**KEY WORDS**  
**PHYSICAL SCIENCE – GRADE THREE- LESSON 2 - CA**



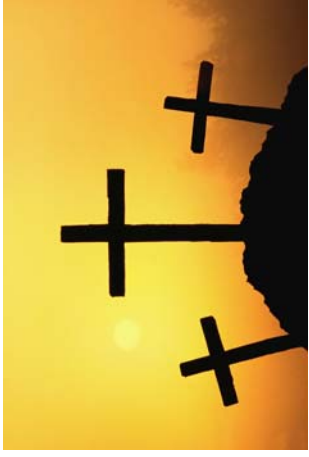
**FRICTION**

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**DISAGREEMENT**

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