

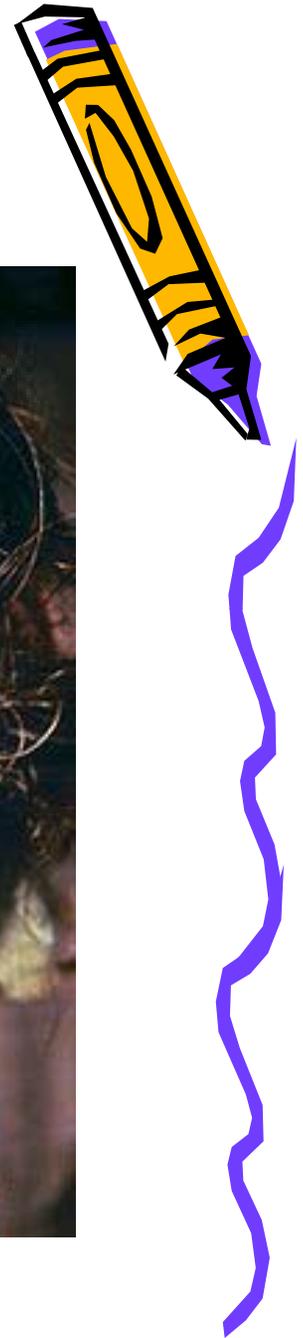
# Why Immunize

Presented by  
Cochise Health &  
Social Services  
Immunization Program



# History of Smallpox

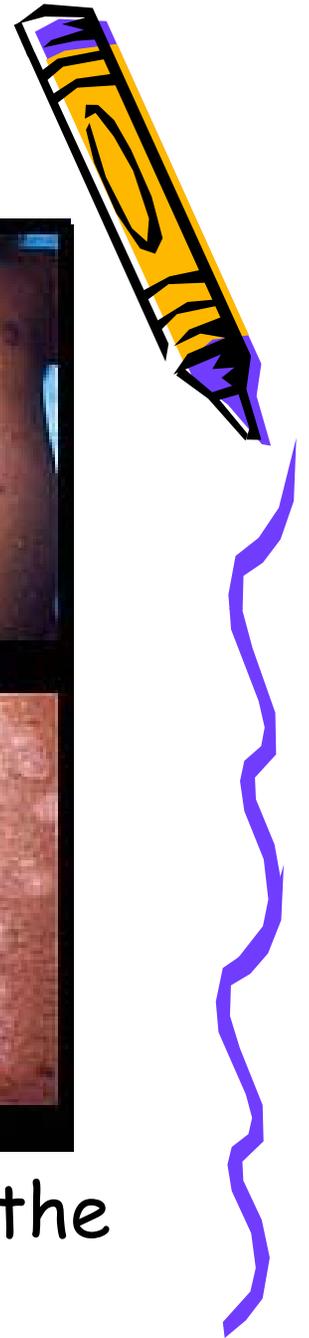
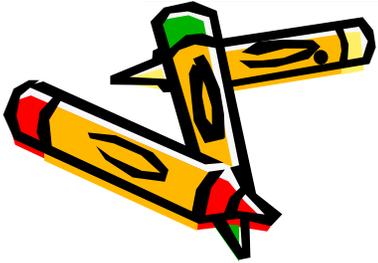
Smallpox had quite a history. The first recorded case was 2000 years ago in China. The Pharaoh Ramses V died of smallpox in 1157 B.C. The disease reached Europe in 710 A.D. and was transferred to America by Hernando Cortez in 1520. It was so deadly that 3,500,000 Aztecs died from it in the next 2 years. The virus behind many of Europe's dark plagues, smallpox killed five reigning European monarchs during the 18th century.



# Smallpox



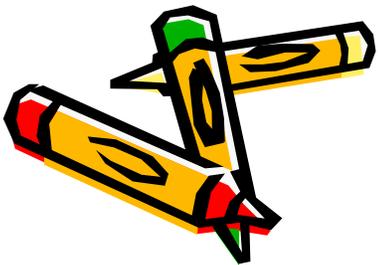
The last known case of smallpox in the U.S. was in Texas in 1949.



# History Lesson

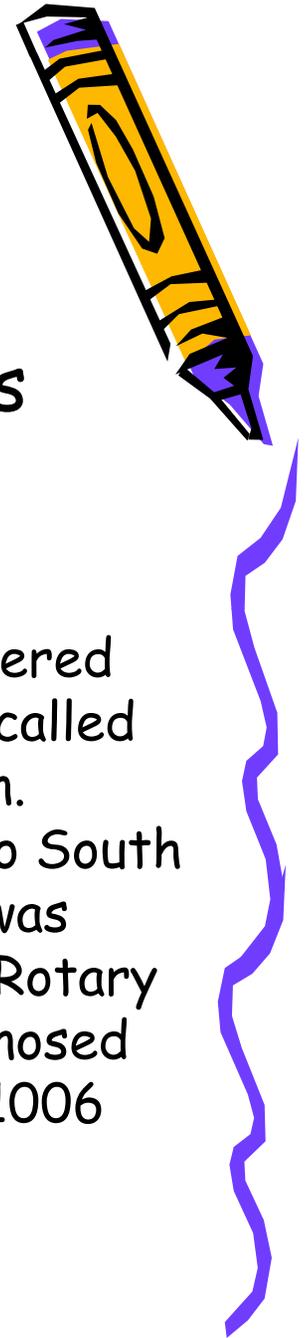


Ali Maalalin was a cook in Merca, Somalia. In 1977 Ali contracted smallpox, a deadly virus that has claimed millions of lives throughout human history. But Ali's infection was different. According to the World Health Organization, Ali was the last known case of smallpox on planet Earth. Ali's immune system successfully eradicated the last strain of this horribly infectious disease on 26th October 1977, forever ridding the world of this virus... Or did it?

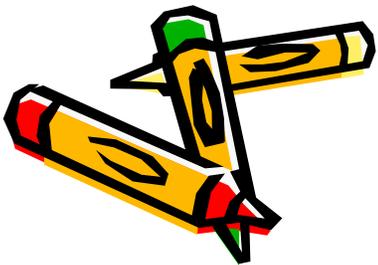


# Polio

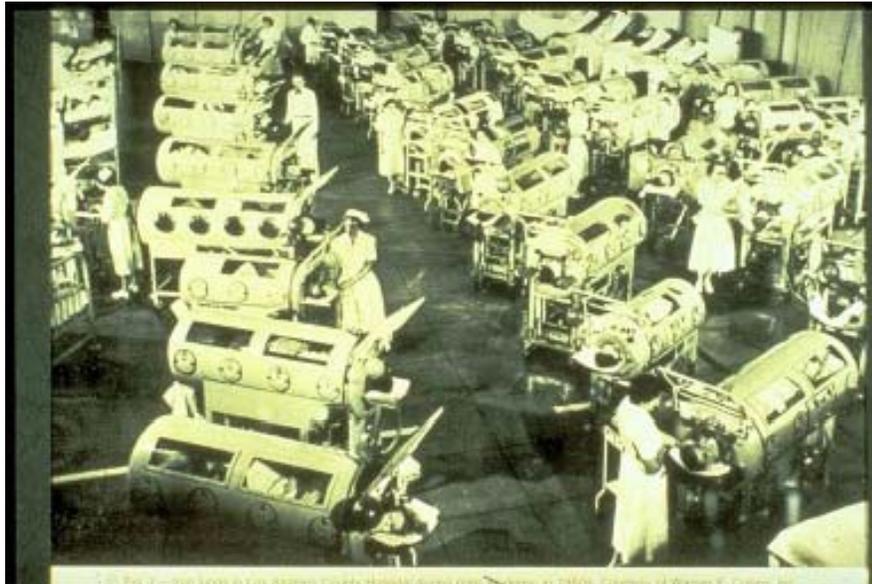
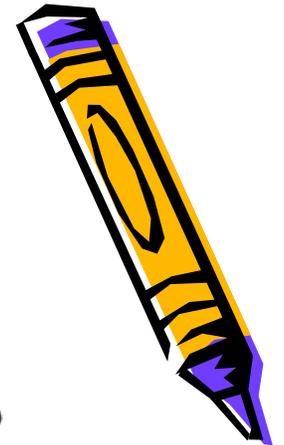
- "Apart from the atomic bomb, America's greatest fear was polio." - 1950s



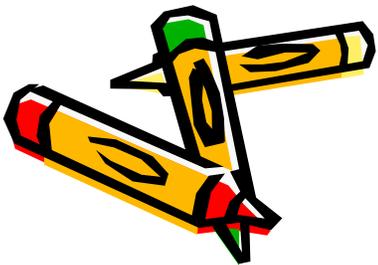
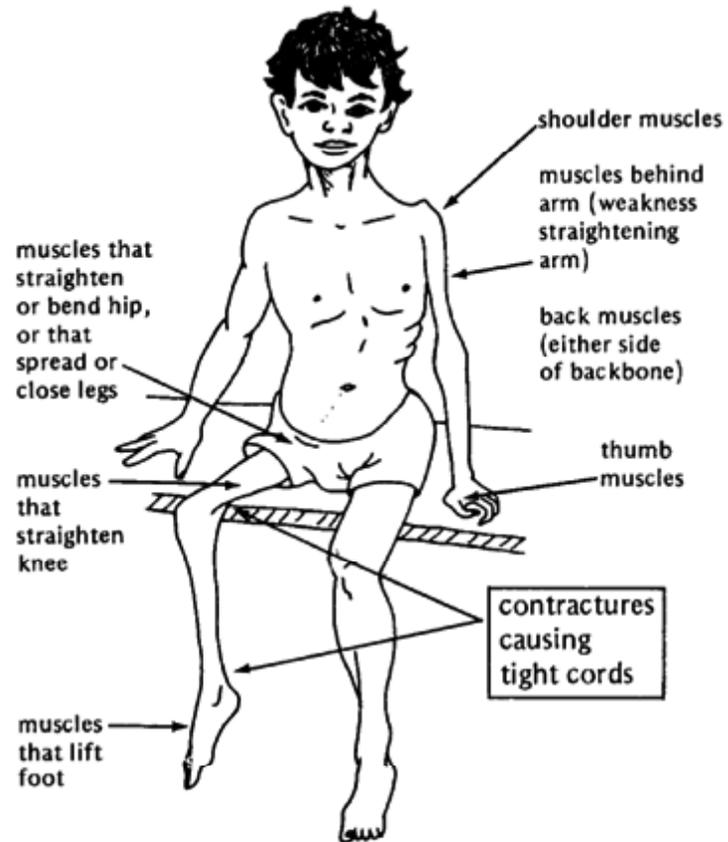
Polio is another ancient disease that has been known since prehistory; Egyptian paintings show healthy people with withered limbs and children walking with canes. The disease was once called infantile paralysis, based on its propensity to affect children. While now rare in the Western world, polio is still endemic to South Asia and Nigeria. In 1988 a global effort to eradicate polio was begun by the World Health Organization, UNICEF, and The Rotary Foundation. These efforts have reduced the number of diagnosed cases by 99%; from an estimated 350,000 cases in 1988 to 1006 cases in 2009.



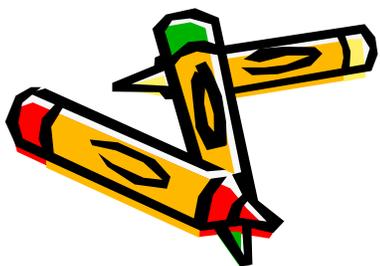
# Before the Polio Vaccine



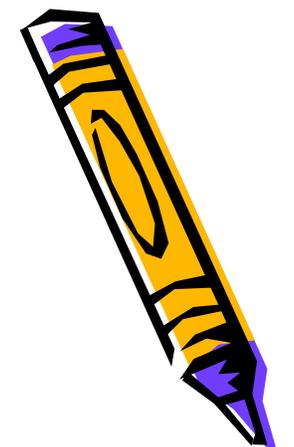
MUSCLES COMMONLY WEAKENED BY POLIO



# Polio Almost Eradicated

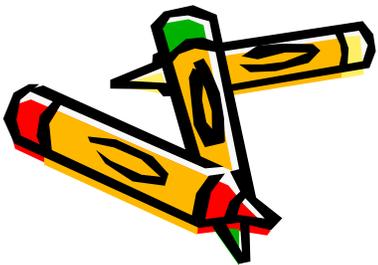
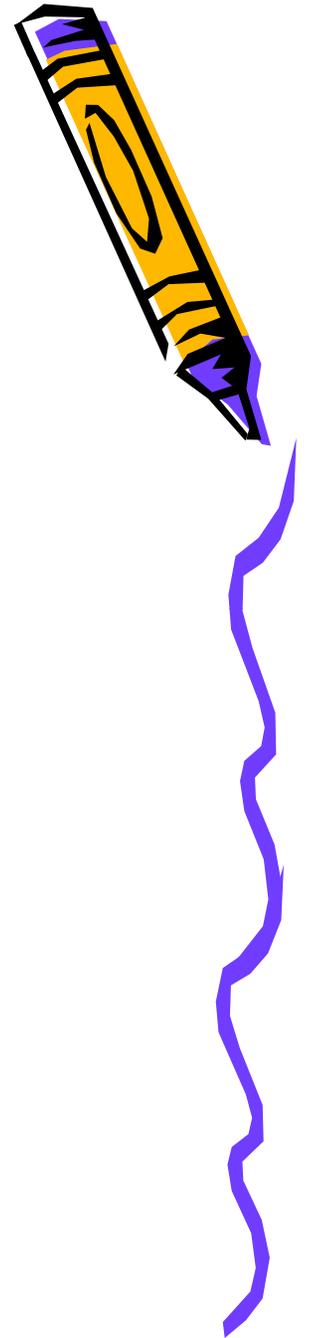


There is no cure for polio. The focus of modern treatment has been on providing relief of symptoms, speeding recovery and preventing complications.



# The Americas declared Polio-free in 1994

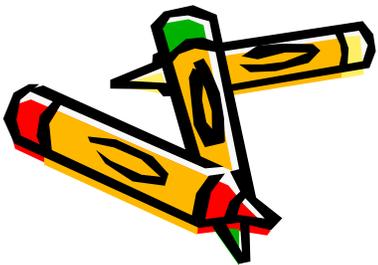
- As of 2012, polio remains endemic in only three countries Nigeria, Pakistan, and Afghanistan



# Tetanus



- Incubation of tetanus may be up to several months, but is usually about 8 days.
- Neonatal tetanus symptoms usually appear 4 - 14 days after birth. It is responsible for about 14% (215,000) of all neonatal deaths, **BUT IT IS VERY RARE IN DEVELOPED COUNTRIES.**
- Generalized Tetanus spasms can continue for up to 4 wks, and complete recovery may take months.

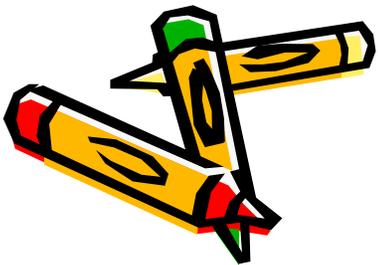


# Tetanus

- Tetanus was well known to ancient people who recognized the relationship between wounds and fatal muscle spasms.

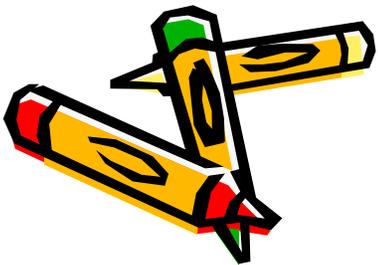


© Immunization Action Coalition



# Diphtheria

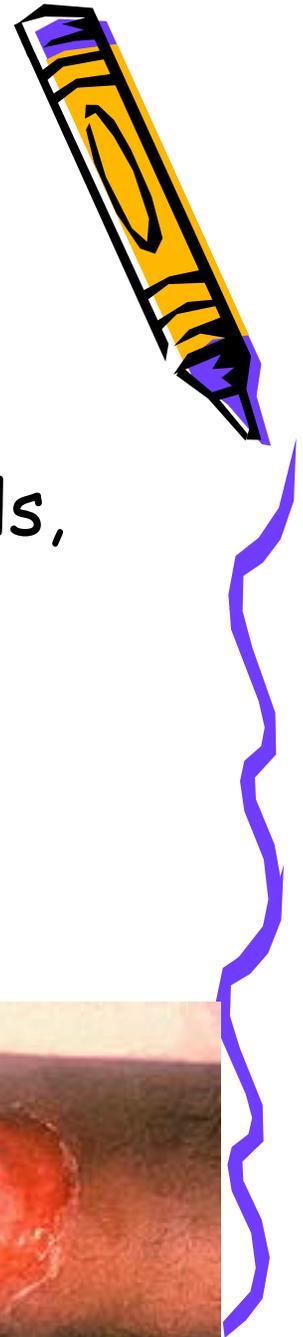
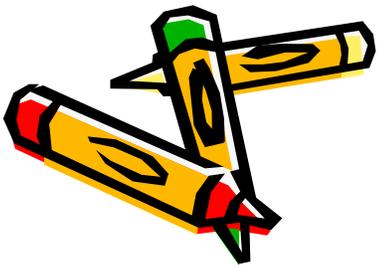
- In the 1920s, there were an estimated 100,000 to 200,000 cases of diphtheria per year in the United States, causing 13,000 to 15,000 deaths per year. Children represented a large majority of these cases and fatalities. One of the most famous outbreaks of diphtheria was in Nome, Alaska; the "Great Race of Mercy" to deliver diphtheria antitoxin is now celebrated by the Iditarod Trail Sled Dog Race.



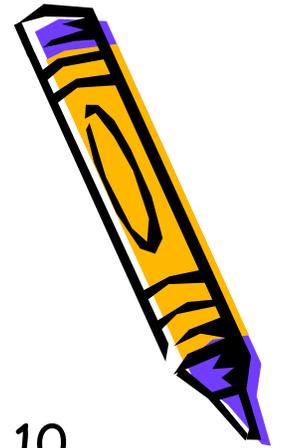
# Diphtheria

- In the U.S. there were 52 reported cases between 1980 and 2000. Between 2000 and 2007, there were only 3 cases

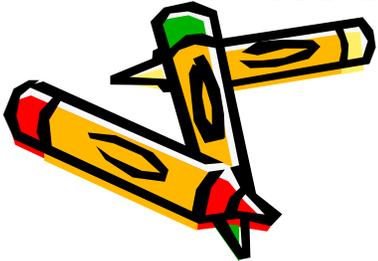
Diphtheria is characterized by sore throat, low fever and a membrane on the tonsils, pharynx and/or nasal cavity. It can result in swelling of the throat causing the need for a tracheotomy. A milder form can be restricted to the skin.



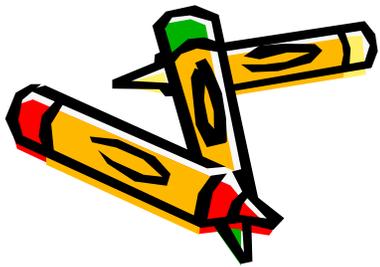
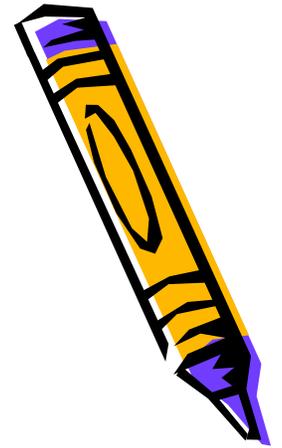
# Pertussis (Whooping Cough)



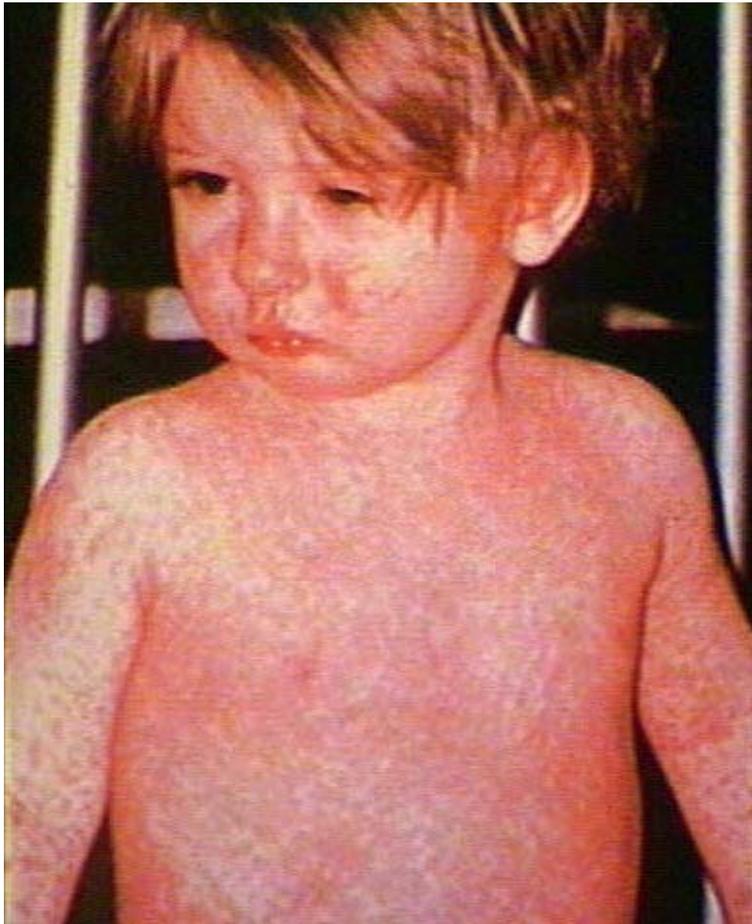
- In 2010, 27,550 cases of pertussis (whooping cough) were reported in the U.S., but many more go undiagnosed and unreported.
- Coughing fits due to pertussis infection can last for up to 10 weeks or more; sometimes known as the "100 day cough."
- Pertussis can cause serious illness in infants, children and adults and can even be life-threatening, especially in infants.
- Worldwide, there are 30-50 million cases of pertussis and about 300,000 deaths per year.
- Since the 1980s, there has been an increase in the number of reported cases of pertussis in the U.S., especially among 10-19 year olds and infants younger than 6 months of age. In 2010, an increase in reported cases among 7-10 year olds was seen.
- More than half of infants less than 1 year of age who get pertussis must be hospitalized.
- Pertussis is generally treated with antibiotics, which are used to control the symptoms and to prevent infected people from spreading the disease.



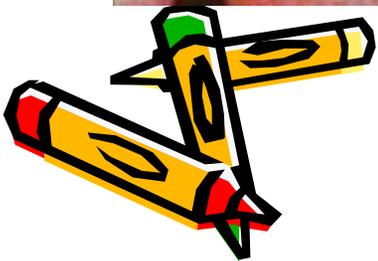
# Pertussis



# Measles

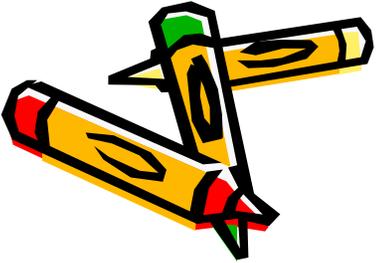


Measles or rubeola, is an acute highly communicable viral disease that is characterized by Koplik spots in the cheek or tongue very early in the disease. A couple of days later a red blotchy rash appears first on the face, and then spreads, lasting 4-7 days. Other symptoms include fever, cough and red watery eyes. The patient may be contagious from four days prior to and four days after rash appearance.

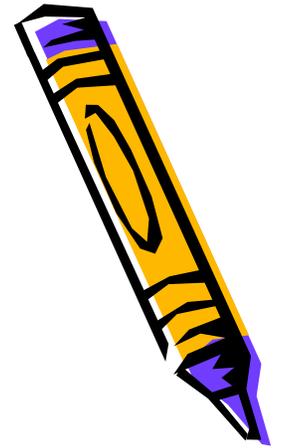


# Measles of the Past

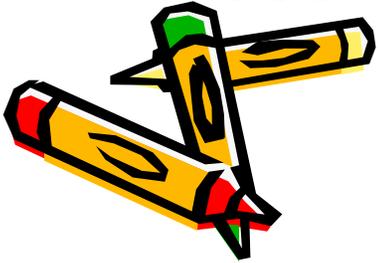
- In 1529, a measles outbreak in Cuba killed 2/3 of the natives who had previously survived smallpox.
- In 1531, measles was responsible for the deaths of half the population of Honduras, and had ravaged Mexico, Central America, and the Inca civilization.
- During the 1850's, measles killed a fifth of Hawaii's people.
- In 1875, measles killed over 40,000 Fijians, approx. 2/3 of the population.



# Measles of the present

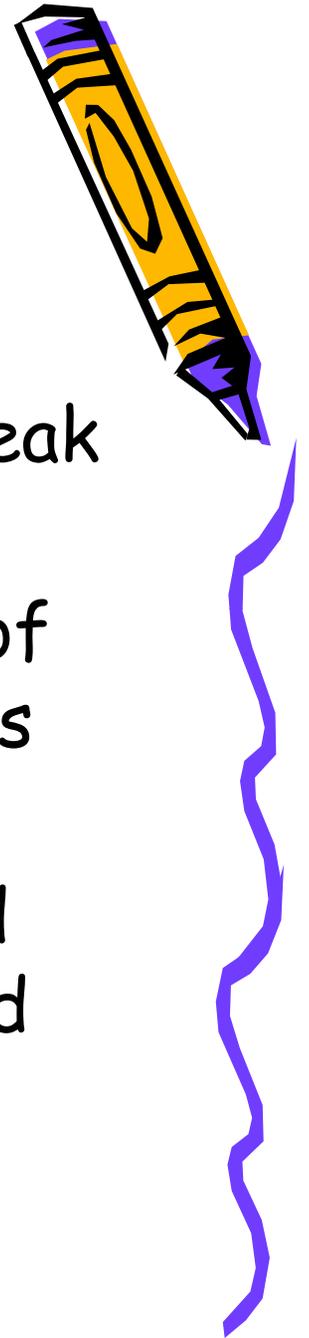
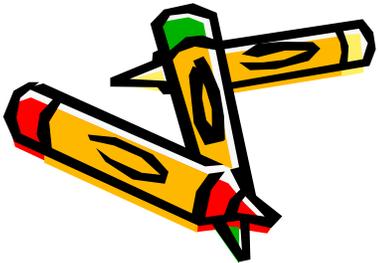


- March of 2010 - the Philippines declared an epidemic due to the continuously rising cases of measles.
- Indigenous measles were declared to have been eliminated in North America, with the last endemic case reported on November 12, 2002.
- June 2006 - an outbreak in Boston resulted after a resident became infected in India.



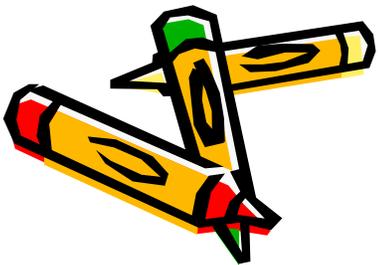
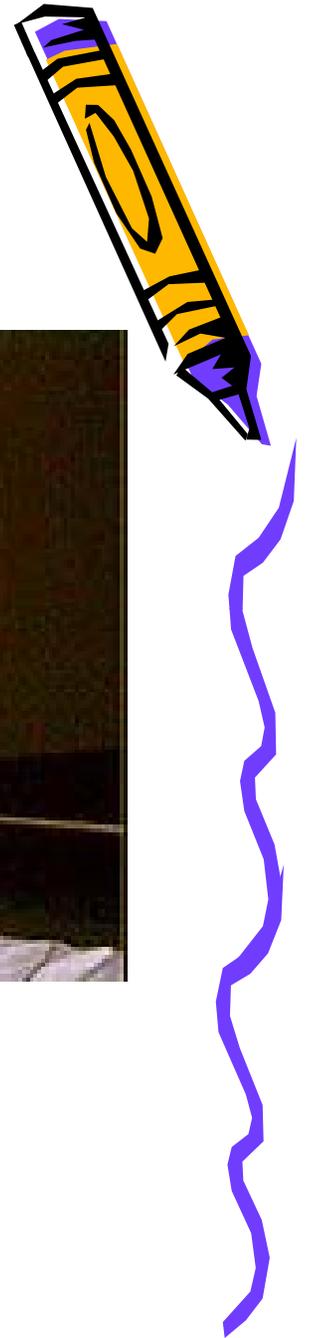
# Closer to home

- July 9, 2008 - a total of 127 cases were reported in 15 states (including 22 in Arizona), making it the largest U.S. outbreak since 1997.
- Most of the cases were acquired outside of the United States and afflicted individuals who had not been vaccinated.
- By July 30, 2008 the number of cases had grown to 131. Of these, about half involved children whose parents rejected the vaccination.

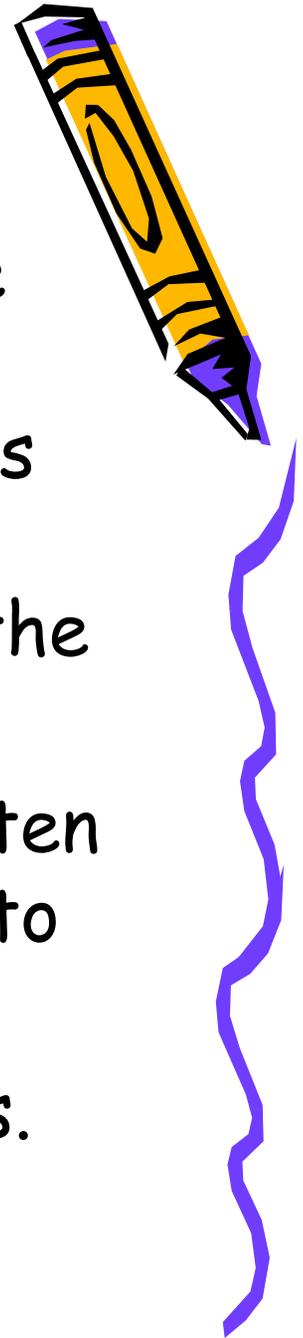


# Mumps

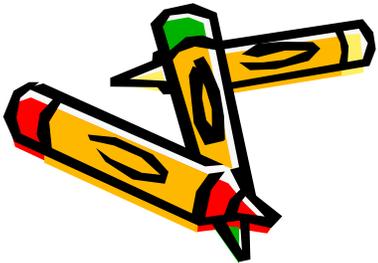
- Painful swelling of the salivary glands (classically the parotid gland) is the most typical presentation. Painful testicular swelling (orchitis) and rash may also occur.



# Rubella

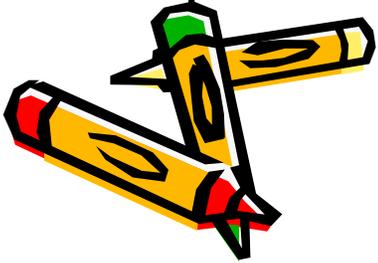


- Commonly known as **German measles**, The name "rubella" is derived from Latin, meaning *little red*. Rubella is also known as **German measles** because the disease was first described by **German physicians** in the mid-eighteenth century.
- This disease is often mild and attacks often pass unnoticed. The disease can last one to three days.
- Children recover more quickly than adults.



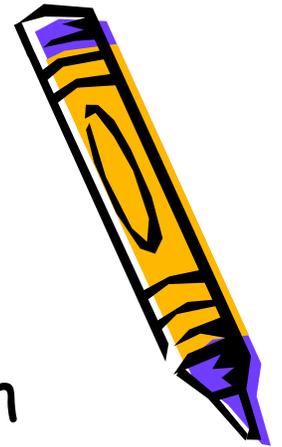
# Congenital Rubella Syndrome

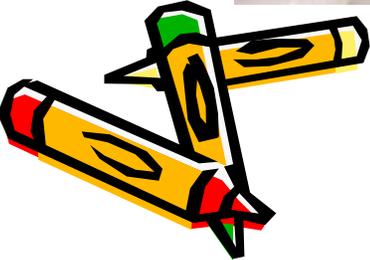
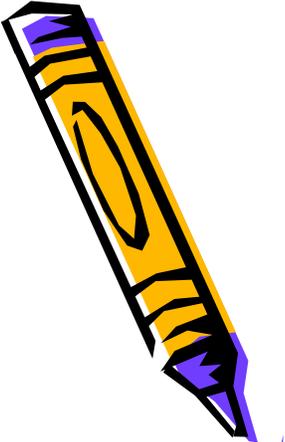
- Infection of the mother by Rubella virus during pregnancy can be serious.
- If the mother is infected within the first 20 weeks of pregnancy, the child may be born with congenital rubella syndrome (CRS), which entails a range of serious incurable illnesses, such as severe mental retardation, deafness, blindness, as well as congenital heart disease and other abnormalities.
- Spontaneous abortion occurs in up to 20% of cases.

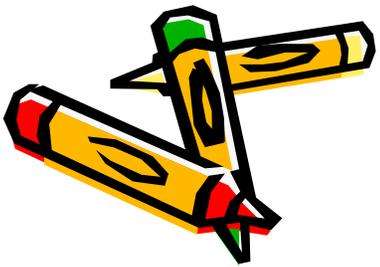
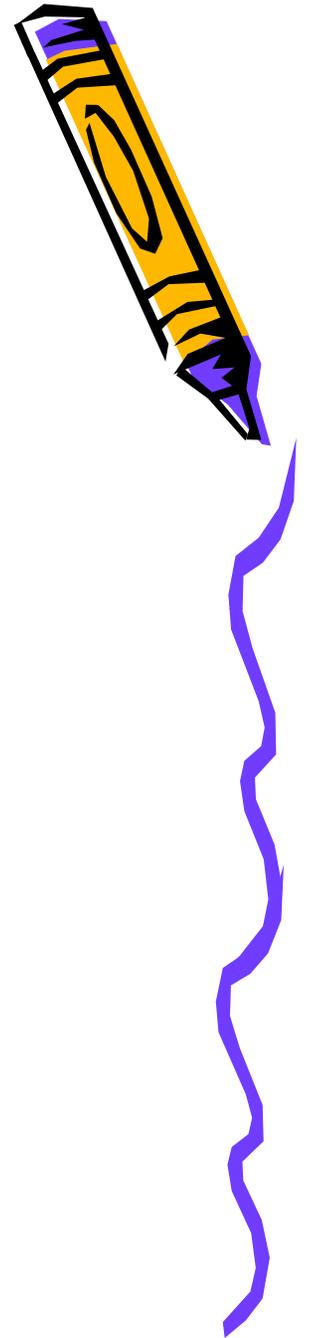


# Chickenpox

- Chickenpox is an airborne disease spread easily through coughing or sneezing of ill individuals or through direct contact with secretions from the rash. A person with chickenpox is infectious one to two days before the rash appears. They remain contagious until all lesions have crusted over (this takes approximately six days).
- It takes from 10 to 21 days after initial infection for the disease to develop.
- Chickenpox is rarely fatal, although it is
- generally more severe in adult males than in adult females or children.



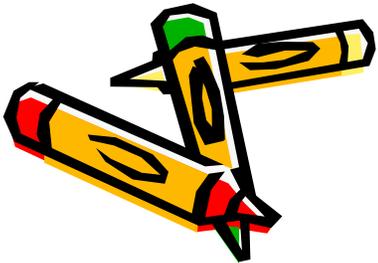




# Complications



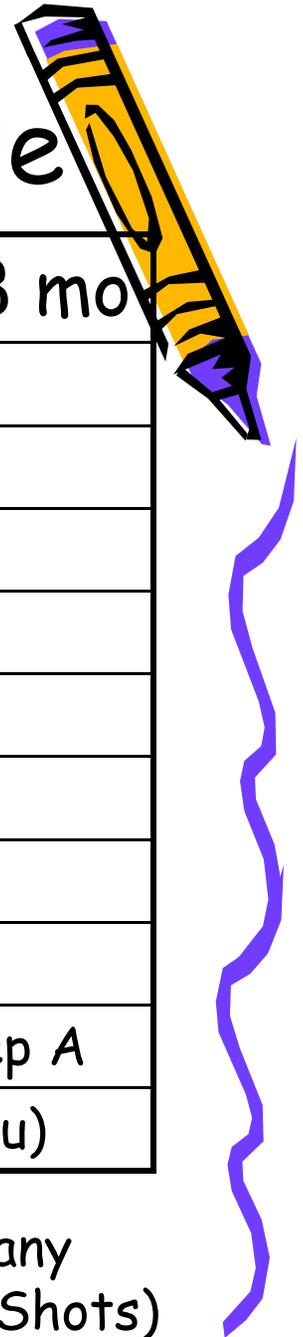
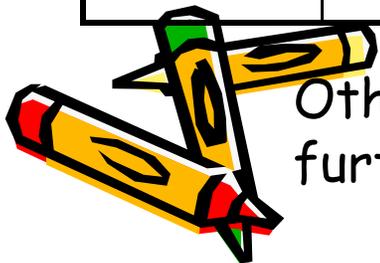
- Non-immune pregnant women and those with a suppressed immune system are at highest risk of serious complications.
- Chickenpox is believed to be the cause of one third of stroke cases in children.
- The most common late complication of chickenpox is shingles (herpes zoster), caused by reactivation of the *varicella zoster* virus decades after the initial episode of chickenpox.



# Infant Immunization Schedule

Birth	2 mo	4 mo	6 mo	12 mo	15 mo	18 mo
Hep B	Hep B	(Hep B)	Hep B			
	Dtap	Dtap	Dtap		Dtap	
	IPV	IPV	IPV			
	Hib	Hib	Hib	Hib		
	PCV13	PCV13	PCV13	PCV13		
	RV	RV	(RV)			
				MMR		
				Varicella		
				Hep A		Hep A
			(Flu)	(Flu)	(Flu)	(Flu)

Other than annual flu shots, your child will not need any further Immunizations until age 4 - 6 (Kindergarten Shots)



# Kindergarten Shots

- Dtap
- Polio (IPV)
- MMR
- Varicella



Other than annual flu shots, your child will not need any further Immunizations until 11 - 12 years old (middle school

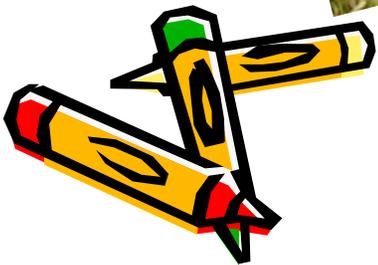
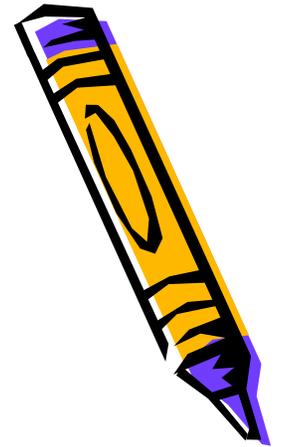


# Pre-teen/teenage years



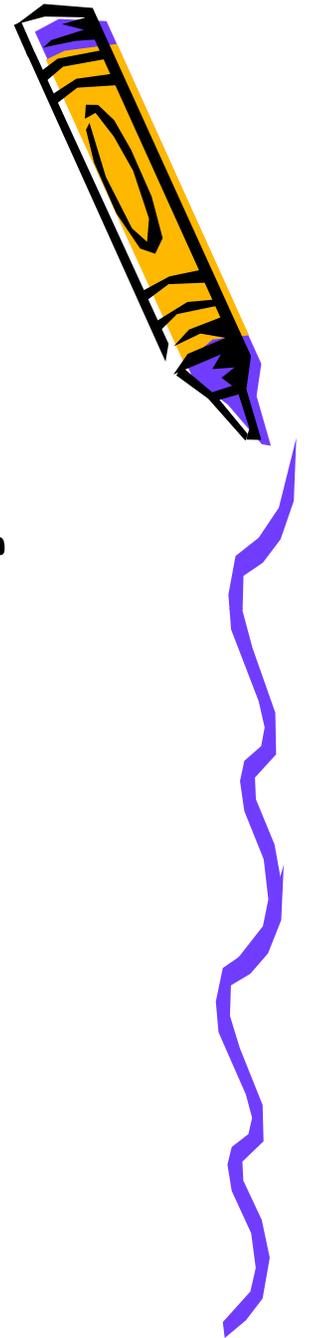
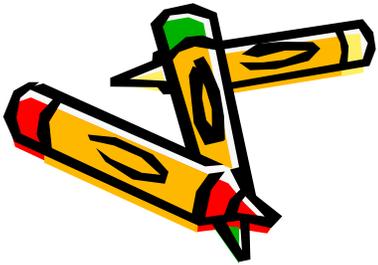
- Age 11 - 12
  - Tdap
  - MCV4
  - HPV (3 dose series)

- Age 16
  - MCV4



# Contact Information

- Kathy LaCombe - Immunization Coordinator - 520-803-3905
- To schedule appointments - Call your local Clinic:
  - Benson - (520)-586-8200
  - Bisbee - (520)-432-9400
  - Douglas - (520)-805-5900
  - Sierra Vista - (520)-803-3900
  - Willcox - (520)-384-7100



# QUESTIONS?

