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| **YEAR GROUP: UKS 2, 3 or 4** |
| **Wiltshire Schools – Vaccination School Resources**  **Herd Immunity Activity** |
| **LINKS TO PREVIOUS LEARNING** |
| **LEARNING OBJECTIVE**  I know that vaccines are a good way of protecting people against infection from diseases and can help protect other people who can’t be vaccinated |
| **LEARNING OUTCOMES**  **I understand** thatvaccines can protect me from diseases and other people who can’t be vaccinated.  **I can** tell other people about the benefits of vaccination |
| **KEY VOCABULARY**  Infectious diseases, measles, mumps and rubella, protection, herd immunity, transmission |
| **RESOURCES/SUPPORT**   * Healthy, ill, vaccinated cards enough printed so that all the children can have one of each cards (supplied but will need printing and cutting out) * PowerPoint presentations are available from within this Wiltshire healthy schools ‘Vaccination School Resources’ to give further information about vaccinations |
| **TEACHING/LEARNING ACTIVITIES**  Introduction – 10 mins  Explain the objectives and outcomes for the session. Explain that when people are vaccinated they are given a small amount of a germ which has been made safe, and their bodies make an immune response to that so next time they encounter that type of germ they are protected. (PowerPoint slide set available) Discuss that some people cannot be effectively vaccinated because their immune systems aren’t working efficiently so they can’t make a protective response. Ask the students how can we protect those people?  If enough people are vaccinated then the chance of unvaccinated people being exposed to the disease is greatly reduced and so they are protected – this is known as herd immunity. This concept can be shown in the activity described below. |
| **MAIN TEACHING AND LEARNING**  Group Activity 2 – 20 mins  To start the session give each student an ‘Ill’ and a ‘well’ card.  Have enough ‘vaccinated’ cards at the ready so that you can give them out to 70% of the class (typically 21 to a class of 30) when you work through the scenario a second time.  **Round One**  Imagine a new disease starts in a holiday resort.  One person comes back to school after their holiday at this resort and doesn’t know they have been infected as they feel fine at first. At first everyone is well (all hold up your green cards)  After 2 days the first person starts to feel a bit poorly, they start coughing and later in the day they feel shivery and hot. (Select a person to hold up a red card).  They go to the school office are taken home. Whilst the person is feeling poorly they are with 5 of their friends and an adult (e.g. admin officer).  The ill person holds up their hand, and high fives 5 students sitting near them and an adult.  Now everyone who was high fived hold up a red card – these people will become ill a couple of days later. They go on to infect others.  Everyone with a red card hold up their hand and high five 5 other students in the class.  You can see how quickly a disease can spread  Most, but may not everyone becomes ill  How many people become ill? – Record this number  **Round Two**  **This time give out the vaccinated cards to 70% of the class**  Now let’s imagine a similar thing. Imagine there is a measles outbreak in one part of the country. A person from your school is visiting their cousins in that town and doesn’t realise they stood next to someone in a queue who was becoming ill with measles.  This time 21 people have been vaccinated already (hold up the blue cards).  The person comes back to school after their visit and they haven’t been vaccinated and they don’t know they have been infected as they feel fine at first. At first everyone is well (all hold up your green cards).  After 2 days the first person starts to feel a bit poorly, they feel shivery and hot and a rash appears on their face (Select a person to hold up a red card).  They go to the school office and are taken home. Whilst the person is feeling poorly they are with 5 of their friends and an adult (e.g. admin officer).  Will any of these people be infected?  Try ‘high fiving’ 5 friends and the nearest adult to you.  If you have been vaccinated you won’t get ill.  Everyone who hasn’t got a vaccine card and was high fived hold up a red card, unfortunately you became ill a few days later. Everyone else hold up a green card – you are all well.  Those with a red card can now ‘high five’ 5 other people.  How many people become ill this time?  See how the spread of disease is reduced. – Compare this number to that shown before from round one.  In an measles outbreak on average, one infected person can expose 20 other people to the virus – not the 5 we used in this scenario. What do you think would be the consequence for your class and your school?  We had 70% of the class being vaccinated – what percentage do you think we would need to protect everyone?  The doctors recommend that 95% of the population are vaccinated so that transmission is stopped really quickly.  **DIFFERENTIATION**  Mixed ability groups or one group supported by TA or teacher. |
| **PLENARY**  Children can discuss whether they think vaccination should be compulsory or not. |
| **KEY QUESTIONS**   1. What can we do to protect ourselves from infection? 2. Do we need vaccinations ourselves? 3. Can we rely on others having vaccines so we don’t need them? |
| **ASSESSMENT FOR LEARNING**  The children can recognise that having vaccines is one of the things we can have to keep us healthy. The children understand that we have free choice and so can not be forced to have vaccines. |
| **CROSS CURRICULAR LINKS**  Core skills  Writing opportunities   * Writing a persuasive argument   Speaking and Listening opportunities   * Expressing their opinion, responding to others. |
| **HOME LEARNING ACTIVITY**  Children make a poster to encourage younger children that vaccinations keep people safe from infectious diseases. |
| **EVALUATION** |

Teachers - Please let us know how you have used this activity guide and any ideas for improvement to[info@wiltshirehealthyschools.org](mailto:info@wiltshirehealthyschools.org)