**Vitamin D, Physical activity and Outdoor vs Indoor Activity**

**Learning Outcomes**

* To learn that sun is important for healthy bones & possibly good mood
* To appreciate that burnt skin is damaged skin and increases skin cancer risk
* To know what other lifestyle choices affect our bones
* To understand that vitamin D & physical activity may both improve our moods

**Key vocabulary**

Vitamin D, rickets, osteoporosis, skin cancer, sunscreen, calcium

You can consider building a lesson plan around the following key messages that link spending time outdoors with physical activity, vitamin D, healthy bones and health & wellbeing more widely. (It compliments, and is complimented by, parts 3 & 4 of the “Eatwell Nutrition Foundation” in the “Nutrition folder”).

**Key messages**

1. One in 3 people in Scotland do not have enough vitamin D.
2. Too much sun causes burnt skin and the risk of skin cancer.
3. Clothing and “sunscreen” protect the skin from burning.
4. We need to expose our skin to ***some*** sun (without clothing or sunscreen) in the summer to make vitamin D.
5. Spending too much time indoors in summer means you can’t make enough vitamin D.
6. It is easier to be active outdoors than inside.
7. Without vitamin D we have weak bones (rickets in childhood or osteoporosis in middle age).
8. Diet is a poor source of this vitamin (only liver and oily fish are good sources).
9. Exercise also makes your bones strong.
10. Taking milk, cheese and yoghurt can help build strong bones too as these give you calcium.
11. Drinking cola and lots of salt makes your bones weaker.
12. Vitamin D is needed to help get the calcium into your bones.
13. Vitamin D deficiency may affect your mood.

One idea is to ask pupils to keep a record of how much time they spend indoors and how much time outdoors. Do this between April and September when the sun is strong enough to produce vitamin D in our skin. They can record the number of times they were being physically active while indoors and outdoors. Define “physically active” as something that makes you breathe more deeply and your heart beat faster.

**Cross Curricular Link:**

The obvious link is to PE.