



SW: GESKIEDENIS

Kwartaal 2

Werkkaart 2

Redes vir Europese Ontdekkingsreise: Die bydraes van Leonardo da Vinci en Galileo Galilei

1. Skryf die volgende nuwe woorde op jou papier, met hul beskrywings: (Jy mag die woord in kleur skryf, maar die beskrywing moet met blou pen wees.)

Nuuskerig: Ywerig om ondersoek in te stel en meer te leer.

Sonnestelsel: Die son en al die planeete wat daarom wentel.

Astronomie: Die wetenskap wat die planeete en die sterre bestudeer.

2. Lees deur die twee gevallestudies op bladsy 124, sowel as die stuk hieronder en beantwoord dan die vrae. Probeer om dit so volledig as moontlik te beantwoord.

Leonardo da Vinci (1452 – 1519)



*Selfportret deur
Leonardo da Vinci*



Leonardo da Vinci is een van die bekendste Renaissance-figure in die geskiedenis. Hy is in Italië gebore en word meestal onthou vir sy fantastiese skilderkuns. Van sy werke sluit die Mona Lisa en die Laaste Avondmaal in. Leonardo het ook baie ander talente gehad:

- * Hy was ook 'n beeldhouer.
- * Hy was betrokke in argitektuur (ontwerp van geboue).
- * Hy was betrokke in geologie en ingenieurswese.
- * Hy het so baie talente gehad, dat mense gesê het hy is geniaal ('n *genius*).
- * In sy spaartyd het hy sketse van valskerms en vlieënde masjienerie gemaak, wat soos die uitvindings van die 19de en 20ste eeu gelyk het.
- * Hy het ook gedetailleerde sketse van die menslike liggaam gemaak, wat tot vandag toe hoog geag word. (Onthou, dit is voor die tyd van foto's en selfs x-strale.)

Vertaal uit SAhistory.com

- 2.1 Skryf drie woorde neer wat jy dink die beste vir Leonardo da Vinci beskryf.

talentvol, geniaal, toegewyd, kunstenaar, ontwerper, briljant, nuuskierig (enige drie)

- 2.2 Daar is soms na Da Vinci verwys as "Renaissance Man". Watter belangrike bydraes het hy tot die Renaissance gemaak?

Hy het die eerste model vir vlieënde masjiene ontwerp, wat die weg gebaan het vir die ontwerp van die vliegtuig. Hy het pragtige beeldhouwerk en skilderkuns gedoen, wat vir baie ander kunstenaars nuwe tegnieke gewys het. Hy het gedetailleerde sketse van die liggaam gemaak, sodat mense kon weet hoe hul bene en spiere werk.

2.3 Da Vinci het geglo dat mense vrae moes vra en dan na die antwoorde gaan soek. Hoekom dink jy is dit belangrik dat 'n mens dit moet doen?

Dit is belangrik, sodat 'n mens meer van die wêreld kan leer. Mens moet altyd probeer om meer te leer. Dit is nie net genoeg om vrae te vra nie, mens moet ook probeer om die antwoorde te kry, want dit lei tot meer vrae en beter uitvindings.

2.4 Dink jy dat 'n mens noodwendig baie talente moet hê om 'n verskil te maak?

Dit is goed om meer as een talent te ontwikkel. As jy een talent het wat uitstaan, kan jy dit gebruik om 'n verskil te maak.

2.5 Leonardo het nie hulpbronne soos die internet, foto's of x-strale gehad toe hy uitvindings gemaak het nie. Dit moes baie moeilik gewees het. Watter eienskap moet 'n mens hê om 'n goeie uitvinder te wees, veral wanneer dit moeilik is?

'n Mens moet deursettingsvermoë hê.

2.6 Leonardo was een van min kunstenaars wie erkenning vir sy werk gekry het terwyl hy nog gelewe het. Hoekom dink jy is dit belangrik om vir wetenskaplikes en kunstenaars erkenning vir hul werk te gee?

Wanneer 'n mens iets ontwerp of uitdink, is dit jou intellektuele eiendom. Dit beteken dat dit aan jou behoort. Dit is belangrik om vir wetenskaplikes en kunstenaars erkenning te gee, want dit wat hulle ontdek of skep, behoort aan hulle en het hulle baie inspanning en tyd gekos om dit te doen. Dit is ook belangrik, sodat daardie wetenskaplike / kunstenaar sal voel dat hulle hul werk met ander kan deel en hulle sal dan meer wil skep / ontdek. Hulle word rolmodelle vir ander wat ook wil skep / ontdek en spoor dus ander aan om ook nuuskierig oor die wêreld te wees en uitvindings te maak.

3. Lees die gevallestudie oor Galileo Galilei op bladsy 124, sowel as die stuk hieronder en beantwoord dan die vrae wat volg.

Galileo Galilei (1564 – 1642)



Galileo Galilei is in 1564 gebore en was 'n Italiaanse wetenskaplike en wiskundige. Galileo het aan 'n klomp verskillende eksperimente gewerk. Hierdie eksperimente sluit die spoed waarteen sekere objekte val en meganika in. Galileo is ook vir die bou van 'n baie sterk teleskoop bekend. Met hierdie teleskoop het hy baie ontdekkings in astronomie gemaak. Hy het berge en valleie op die oppervlak van die maan ontdek, sowel as die vier grootste mane van Jupiter. (Onthou, sommige mense het in hierdie tyd nog gedink dat die aarde plat is.) Hierdie werk in astronomie is wat hom bekend gemaak het en hy is as die hoof wiskundige in die stad van Florence aangewys. Galileo het die kerk baie kwaad gemaak, toe hy gesê het dat die son die middelpunt van die sonnestelsel is. Dit was revolusionêr in daardie tyd, want meeste mense, veral die kerk, het geglo dat die aarde die middelpunt is. In 1616 het die kerk hom verbied om sy leringe en teorieë vir ander te vertel. *Vertaal uit SAhistory.com*

3.1 Skryf drie woorde neer wat jy dink die beste vir Galileo Galilei beskryf.

intelligent, dapper, toegewyd tot sy werk

3.2 Waarom dink jy is die bou van die astronomiese teleskoop so 'n belangrike gebeurtenis?

Die mense in daardie tyd het gedink dat die aarde plat is. Dit het mense baie anders na die wêreld en die ruimte laat kyk. Dit was deurslaggewend tot nuwe ontdekkingsreise.

3.3 Dink jy dat dit vandag nog belangrik is dat mense wetenskaplike uitvindings maak? Motiveer jou antwoord met voorbeelde uit die tyd waarin ons vandag lewe.

4. Verbeel jou dat jy 'n uitvinder is. Dink 'n bietjie aan 'n masjien / 'n uitvinding of enige voorwerp wat jy dink mense se lewens kan verbeter.

4.1 Beskryf jou uitvinding / masjien. Hoe sal hy werk? Wat is sy doel? Hoe sal hy mense se lewens verbeter? Hoe lyk dit? Wees kreatief. Kom deel met ons.

4.2 Teken / ontwerp jou uitvinding / masjien.

Bonus: Jy kan dit maak en vir ons by die skool kom wys as dit nie te groot / te moeilik is nie. (Die bou is nie verpligtend nie.)

Kom deel met ons.



SS: HISTORY

Term 2

Work sheet 2

Reasons for European exploration: The contributions of Leonardo Da Vinci and Galileo Galilei

1. Write the following new words, with their descriptions on your page. (You may write the word in colour, but the description must be in blue pen.)

Curious: Eager to investigate and learn more.

Solar system: The sun and all the planets that revolve around it.

Astronomy: The science that studies the planets and the stars.

2. Read the two case studies on page 124, as well as the passage below. Answer the questions that follow. Try to answer as thoroughly as possible.

Leonardo da Vinci (1452 – 1519)



*Self-portrait by
Leonardo da Vinci*



Leonardo da Vinci is one of the most famous Renaissance figures in history. He was born in Italy and was best remembered as the painter of many great works of art like the Mona Lisa and The Last Supper. Leonardo is also famous for his amazing variety of other talents:

- * He was a sculptor.
- * He was involved in architecture (design of buildings).
- * He was involved in geology and engineering.
- * Due to the fact that Leonardo had so many skills in different areas, he was considered to be a genius.
- * In his spare time, he did drawings of parachutes and flying machines that looked like inventions of the 19th and 20th centuries. He also made detailed drawings of the human body which are still highly regarded today. (Remember, this was a time before photographs or x-rays.)

Source: SAhistory.com

2.1 Write down three words which you think best describes Leonardo da Vinci:

Talented, genius, dedicated / persistent, artist, designer, brilliant, curious (any three)

2.2 Da Vinci was sometimes referred to as "Renaissance Man". Which important contributions did he make toward the Renaissance?

He designed the first flying machines, which paved the way for the invention of the aeroplane. He made beautiful sculptures and paintings, which showed new techniques to other artists. He made detailed drawings of the human body, so that people can have a better idea of how their bones and muscles work.

2.3 Da Vinci believed that people have to ask questions and then to find the answers. Why do you think it is important that we do so?

It is important, so that one can learn more about the world. One should always try to learn more. It is not enough to just ask questions, one should always try to also find the answers, as that will lead to more and better inventions.

2.4 Do you think that someone necessarily have to have many talents in order to make a difference?

It is always good to develop more than one talent. If you have one that stands out, you can use it to make a difference.

2.5 Leonardo did not have resources such as the internet, pictures or x-rays when he made discoveries. That had to be very hard to do. Which characteristic must one have to be a good inventor, especially when it is hard?

One must have perseverance.

2.6 Leonardo was one of few artists who got credited while he was still alive. Why do you think it is important to give scientists and artists credit for their work?

When you invent or create something, it is your intellectual property. That means that it belongs to you. It is important to give scientists and artists credit for their work, because it belongs to them and it took them a lot of effort and time to do it. It is also important, so that the scientist / artist will be motivated to share their work with others and even create / discover more. They become role models for others who also wants to create / invent and motivates them to be curious about the world and eventually make discoveries and creations of their own.

3. Read the case study about Galileo Galilei on page 124, as well as the passage below and then answer the questions.

Galileo Galilei (1564 – 1642)



Galileo Galilei was born in 1564 and was an Italian scientist and mathematician. Galileo worked on a number of different experiments. These included experiments on the speed at which different objects fall, mechanics and work around pendulums. Galileo is also famous for building a powerful telescope. With this telescope, he made many discoveries in the field of astronomy. He discovered mountains and valleys on the surface of the moon, sunspots and the four largest moons of the planet Jupiter. This work on astronomy is what made him famous and he was appointed court mathematician in the city of Florence. Galileo made the church very angry in 1614 by saying that the sun was at the centre of the solar system. This was revolutionary at the time as most people, especially the churchmen, believed that the earth was in this central position. He was forbidden by the church in 1616 from teaching or telling anyone about his theories.

Source: SAhistory.com

3.1 Write down three words that you think best describes Galileo Galilei.

intelligent, brave, dedicated to his work.

3.2 Why do you think the building of the astronomic telescope was so important?

The people in those times thought that the world was flat. It changed the way people looked at the world and space. It was crucial to the exploration journeys.

3.3 Do you think that it is important that there are still scientific discoveries? Motivate your answer with examples of the times we are currently living in.

4. Imagine that you are an inventor. Think a bit. What kind of machine / discovery of anything that can contribute to people's lives for the better would you invent?

4.1 Describe your invention / machine. How would it work? What is its purpose? How will it help people? What does it look like? Be creative! Come and share with us!

4.2 Draw / design your invention / machine.

Bonus: You can build it and come and show us at school if it is possible. (This is not compulsory.) Come and share with us!